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Land and people in Wicklow, 1660-1840.

Vol. 1 of 2

by

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Abbreviations

The following abbreviations have been used in this work:

<i>Anal. Hib.</i>	<i>Analecta Hibernica</i>
<i>Archiv. Hib.</i>	<i>Archivium Hibernicum</i>
Bnd (bnds)	bound (e.g. upper bound)
<i>Cal. pat. rolls Ire., Chas I</i>	<i>Calendar of patent and close rolls of chancery in Ireland, Charles I, years 1 to 8</i> , ed. James Morrin (Dublin, 1864)
<i>Cal. S.P. dom.</i>	<i>Calendar of state papers, domestic series</i> (London, 1856-)
<i>Cal. S.P. Ire.</i>	<i>Calendar of state papers relating to Ireland</i> (London, 1860-1911)
Cath. (Caths)	Catholic (Catholics)
CBR	Crude Birth Rate
CDR	Crude Death Rate
Cen.	census
<i>Commons' jn. Ire.</i>	<i>Journals of the house of commons of the kingdom of Ireland</i>
Connell, <i>Population</i>	K. H. Connell, <i>The population of Ireland, 1750-1845</i> (Osford, 1950)
CQM	current quinquennial mean (for 1700, CQM is mean of 1698-1702)
Dub.	Dublin
<i>F.D.J.</i>	<i>Faulkner's Dublin Journal</i>
FPH	Families per house
hab.	habitable (land)
<i>I.H.S.</i>	<i>Irish Historical Studies: the joint journal of the Irish Historical Society and the Ulster Society for Irish Historical Studies</i>
inc.	increase
inhab.	inhabited
<i>Ir. Econ. & Soc. Hist.</i>	<i>Irish Economic and Social History: the journal of the Economic and Social History Society of Ireland</i>
Lr.	Lower
<i>Louth. Arch. Soc. Jn.</i>	<i>Journal of the County Louth Archaeological Society</i>
MHS	Mean household size
N.A.I.	National Archives of Ireland
<i>N.H.I.</i>	<i>A new history of Ireland.</i>
N.L.I.	National Library of Ireland
PPF	People per family
p.a.	per annum

Pap. (Paps.)	Papist (Papists)
Pop.	Population
Prot. (Prots.)	Protestant (Protestants)
R.C.B. Lib.	Representative Church Body Library.
<i>R.I.A. Proc.</i>	<i>Proceedings of the Royal Irish Academy</i>
PQM	Past quinquennial mean (for 1700, PQM is mean of 1695-99)
PQM _i	Past quinquennial mean, inclusive (for 1700, the PQM _i is mean of 1696-1700)
<i>R.S.A.I. Jn.</i>	<i>Journal of the Royal Society of Antiquaries of Ireland</i>
Rev. Pol.	<i>The Review of Politics</i>
Talb.	Talbotstown
Tot.	Total
Unk.	Unknown
Ur.	Upper
Wick.	Wicklow

Introduction

Wicklow: unique landscapes and a unique history

County Wicklow is a small, maritime county, located immediately south of Dublin, in the province of Leinster. The county is bounded by the Irish Sea to the east, by County Dublin to the north and by the Gorey region of County Wexford to the south. To the north-west, the county shares a long border with County Kildare and the south-western parts of the county are bordered by the Tullow-Rathvilly area of County Carlow. It could be assumed that its location, sandwiched between counties of considerable antiquity and with long-standing links with the administrative capital, made it likely that the character of Wicklow would be some amalgam of the personalities of its neighbours, but this would be incorrect. In fact, far from it being a hybrid, County Wicklow was, as it remains today, distinctive and unique.

In the first instance, the physical character of the county differs in dramatic fashion from that of its neighbours. Geologically, the county is dominated by a massive granite ridge, which runs, in a north-south orientation, through the centre of the county, from south Dublin, through Roundwood and Rathdrum, to Tinahely and Aughrim, near the border with Wexford (figure 1). This range, moulded during the Fenitian glaciation period, has played no insignificant part in determining Wicklow's subsequent social history, and has meant that, rather than Wicklow being a bland, homogeneous unit, the county was physically divided into a number of regions, each of which were (as they remain today) more closely linked with their hinterlands in neighbouring counties, than with other parts of the county, with which they were administratively linked.



Figure 1 - Physical relief of the Wicklow region, showing the granite uplands, which physically divided the county. Only two cross-mountain routes exist today, through Sally Gap and Wicklow Gap (source: Ireland, east (O.S.I., 1:250,000 series, 2004).

Five distinct regions can be readily identified. Along the east coast, the north-eastern part of the county, comprised of the baronies of Rathdown and Newcastle, has, since the arrival of the Normans, looked towards Dublin while the south-eastern coastal area (the barony of Arklow) has been closely linked with northern County Wexford. These regions, relatively flat, fertile and easily accessible were, by the nineteenth century, very densely populated. To the west, the two Talbotstown baronies form a distinct region, more closely linked with Naas and the plains of Kildare than with the eastern coastal towns. In the south, the barony of Shillelagh formed a fourth distinct region, with a unique plantation experience. On the map, Shillelagh appears as an afterthought; an appendage, that should have been part of the bordering counties of Carlow or Wexford, and sure

enough, this was the case. When the modern county was first delineated, Shillelagh was omitted, and was only subsequently added to the county.¹ The fifth distinctive region, physically rising above the others, is represented by the elevated mountainous region in the centre of the county, encompassed by the huge barony of Ballinacor. Much of this area is mountainous and infertile, and has only contributed sporadically, and marginally, to Wicklow's social and economic development. Lying between the eastern coastal regions, the western plateau and heavily planted Shillelagh, Ballinacor has always been more a barrier than a bridge (figure 2).

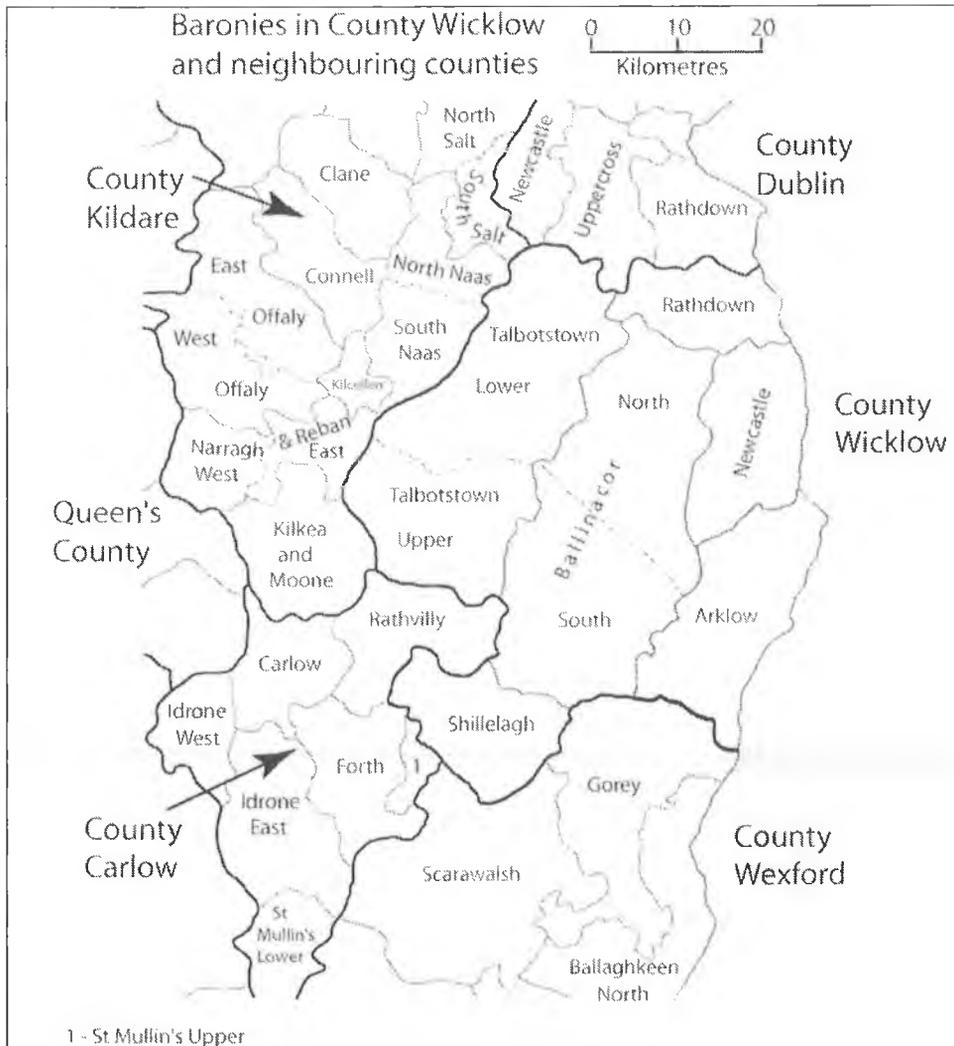


Figure 2 - Barones in the Wicklow region (mid-nineteenth century).

Note: Ballinacorr barony was sub-divided in the nineteenth century into North and South, but it is generally treated as a single barony throughout this study, because much of the relevant source material originated before the sub-division.

These regions were distinct – and it was the county’s unique geological profile that made them so. So pervasive was the influence of the uplands that even travel between regions on either side of the mountains could be problematic. The Fenian glaciation had impressed a rigid north-west / south-east orientation on the mountain passes and valleys, reflecting the direction of ancient ice flows, and when trans-mountain communications routes developed, they inevitably honoured the north-west / south-east substructure, laid down millennia earlier. Thus, while natural mountain-passes like Sally Gap and Wicklow Gap supported the main

arteries of communication between east and west (figure 1), they also strictly determined the direction that was followed by travellers. Communication in a north-west / south-east direction – between the Blessington area and the Roundwood area, for instance – was facilitated, but travel in a south-west / north-east direction, between Baltinglass and Wicklow or Bray, was hindered.

Secondly, it is notable that County Wicklow was the only Irish county to have been created twice. From before the arrival of the Normans, the Wicklow Mountains had been the home of entrenched Gaelic families, and for five centuries following 1169 the territory ‘hath been heretofore [1628] the strongest fastness for the rebels of Leinster, and sometimes of other provinces’.² Inter-ethnic conflict was frequent, and frequently brutal, but the conquest of the region by government forces, proved perennially elusive. In the 1560s martial law was introduced, in order to contain Gaelic revolts, but this brutal rule only compounded the problem by further fostering revolt.³ In the late 1570s the government moved decisively, by slaying clan leaders from Queen’s and King’s Counties in 1577 and moving against the leading Wicklow family, the O’Byrnes, the following year, precipitating their submission to the monarch in October 1578.⁴ With an uneasy peace prevailing, the first attempt to shire Wicklow was initiated.

Two new counties, Wicklow and Ferns, were formed, with County Wicklow, running from Delgany to the Aughrim River, and encompassing the clan territories.⁵ The half barony of Rathdown, including the small town of Bray, was to remain in County Dublin and Arklow town was included within County Ferns.⁶ Although the county was established, and was represented in parliament in the mid-1580s,⁷ the initiative quickly failed. No sheriffs, essential for the maintenance of law and order, were appointed in either county, and by the end of the 1580s the two counties had lapsed into oblivion. Explaining the failure of these shirings, John Dymmok noted that ‘there were not sufficient, and sewer gent[lemen] to be shriffes, nor freeholders to make a Jury for her Maiestie, yt hath been let fall’.⁸

In early 1606,⁹ following another defeat of revolting Gaelic forces, during the Nine Years War, a second attempt to shire Wicklow was initiated.¹⁰ Noting that the ‘infertilitie, wastnes and small scope of the said countries and townes, and the incivilitie of the inhabitants for the most part thereof’ would prove

problematic, and conscious, no doubt, that it was this same 'infertilitie' and 'incivilitie' that had put paid to the initial attempt to shire, different boundaries to those appointed in 1579 were chosen, with part of the barony of Rathdown (the parishes of Bray, Delgany, Powerscourt and Kilmacanoge in the north-east of the county) and Arklow town to be included in the new county.¹¹

Following the shiring, the inhabitants appear to have quickly adapted to the new regime, and by the end of 1606, Sir John Davies, solicitor general for Ireland,¹² records them as being 'exceedingly delighted and comforted with this new form of government', having been freed from the 'Irish tyranny' of the O'Byrnes and the 'barbarous customs' of the seneschals [the military governors].¹³ Confirming this peace, Lord Deputy Chichester noted in 1607 that 'the inhabitants [of County Wicklow] carry themselves as honestly, and answer to the assizes and sessions as orderly as any county in the kingdom'.¹⁴ This new peace was maintained, and in 1612 John Davies further noted that 'the mountaines and glynnes on the South side of Dublin, were lately made a shire by itself, and called the County of Wicklow; whereby the inhabitants which were wont to be thorns in the side of the Pale, are become ciuill [civil] and quiet neighbors'.¹⁵

Finally, Wicklow's ethnic and denominational history since the seventeenth century more closely mirrored borderland Ulster counties than was the case with any of its Leinster neighbours. Before the seventeenth century, the central administration maintained only a few peripheral toeholds in the region, on the margins of the uplands – Newcastle, Castlekevin and Macreddin, were Wicklow's Carrickfergus, Derry and Enniskillen; enclaves of order and authority amongst wild Ireland – but two wars changed this situation utterly. In the aftermath of the Gaelic defeat in 1597, land confiscations commenced, starting in the north, at Powerscourt, when Sir Richard Wingfield was granted lands, 'now waste by the occasion of war', in 1603, and later, in the 1610s, when the Brabazons made their appearance at Kilruddery, and William Parsons was granted substantial territories in the east.¹⁶ The transfer of land received a further fillip with the arrival of Thomas Wentworth, later earl of Strafford, in 1633, who enthusiastically involved himself in the acquisition of territory, building up a holding of more than 50,000 acres, principally in the south of the county, by

1640.¹⁷ As a consequence, Gaelic land holding was considerably reduced during the first half of the seventeenth century, and was largely confined to the less fertile uplands.¹⁸ Thus, at the outbreak of the 1641 rebellion, while Catholic proprietors in Wicklow still remained in possession of about 100,000 acres, twenty-eight newly settled Protestants had succeeded over the preceding four decades in rapidly building up extensive holdings, amounting to more than 135,000 acres.¹⁹

However, this gentry revolution had not been repeated at lower social strata, and Catholics remained numerically dominant throughout the region. The diocesan visitations of 1615 (national) and 1630 (Bulkeley's visitation of Dublin) provide extensive evidence of the difficulties faced by a small coterie of colonists, vastly outnumbered by the native population, during the first half of the seventeenth century. In particular, Bulkeley's detailed visitation (figure 3) litanies miniscule congregations, stoically attending service in dilapidated or collapsing churches, throughout the county. Only Wicklow parish ('a hundred threescore and odd') clearly had a substantial, vibrant, Protestant community. Powerscourt, which had been the location of the first Protestant encroachment, a generation earlier, reputedly had 'about two hundred that usually frequent divine service', but this is doubtful, and may either be an error [200 instead of 20], or may represent the attendance of recusants.²⁰

The number of Protestants in the county is certain to have been greater than the numbers recounted in Bulkeley's compilation. The thrust of the survey was into church attendance rather than Protestant numbers and weekly attendance at church was rare for all denominations in the seventeenth century,²¹ so how the 'fower-and-twentie' that attended church at Newcastle or the 'six or seven' who worshiped at Ennereilly, for instance, equated to actual Protestant numbers is unclear.²² In some places the numerical strength of Protestants is less ambiguous, such as in Boystown in the north-west and Kilmacow in the south-east where 'all the parishioners are recusants'.²³ Remarkably, throughout the entire county there were only six parishes which boasted more than ten weekly attendees at church. It is notable that these parishes – Bray (sixteen), Newcastle (twenty-four), Arklow and Kilbride (twenty), Hollywood and Donard (sixteen) and the aforementioned

Powerscourt and Wicklow – were, with the exception of Hollywood and Donard, all located along the eastern coastal strip.²⁴

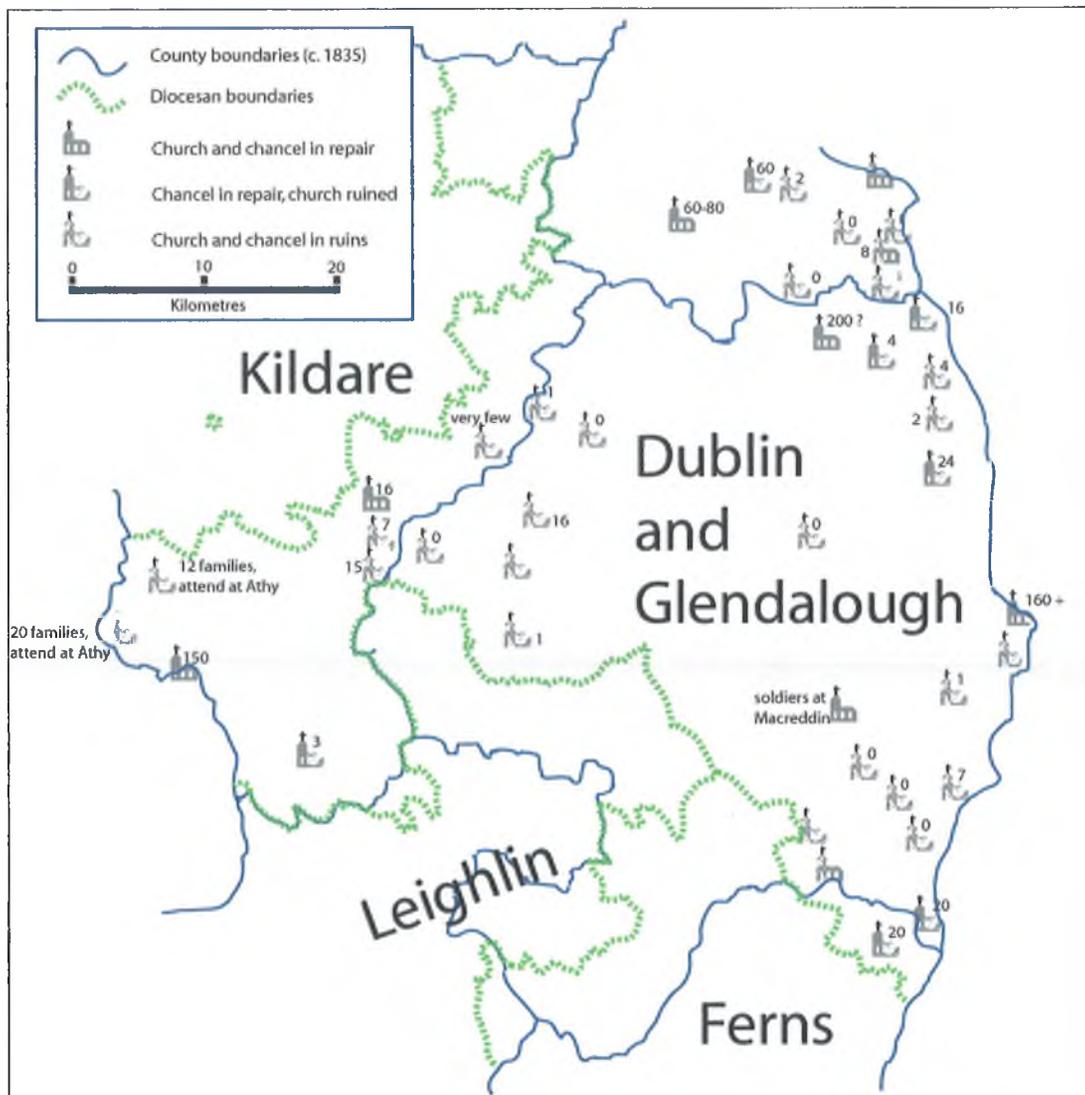


Figure 3 – State of the southern part of the Dublin diocese in 1630 (archbishop Bulkeley’s visitation) (source: Ronan, ‘Visitation of Dublin, 1630’, pp 73-4, 77-97).

Note: All of the Wicklow and south Dublin churches recorded by Bulkeley are shown, but only the more important churches in south and east Kildare.

The numerical weakness of Protestantism in the diocese was similarly reflected at the infrastructural level, with the report finding most of the parish churches in various states of collapse. Two decades earlier, a major initiative had been launched to repair the diocese’s parish churches and the 1615 visitation had reported a reasonably healthy diocesan infrastructure.²⁵ Genuine attempts at

proselytizing were being made, too, for in a number of parishes in west Wicklow and the surrounding regions, the respective clergymen (or their predecessors) appear to have been preaching through Irish (appendix 1).²⁶ By 1630, however, not a single church in west Wicklow was roofed and in the east, outside of a few Protestant enclaves along the coast, the churches were in comparably poor shape. In Bray and Newcastle the chancels were roofed and at Rathdrum the church was also covered.²⁷ Even Wicklow's 'a hundred threescore and odd' weekly worshippers had to attend a church that was 'not decent within'.²⁸ The extreme southern and south-western parishes, in Leighlin diocese, lay outside the remit of Bulkeley's inquiry, but it is likely that Protestantism was in an even weaker state in those areas, since Strafford and other Protestant land traffickers had not yet acquired their substantial territories. Clearly, the plantation of the county had not, by 1630, permeated through all levels of the social spectrum, and it is unsurprising to observe that in 1639 both of the county's MPs were drawn from branches of the O'Byrne family.²⁹

The structure of the thesis

This thesis has been structured into two parts. The first part (chapters one, two and three) examines two aspects of County Wicklow – its land and its people. Wicklow's human landscapes were constrained by its physical makeup, but constructed by its inhabitants. Thus, the first chapter investigates physical Wicklow, including regional differences in land quality and the impact of human settlement on the human landscape. The development, and expansion, of communications infrastructures are detailed, as are the development of urban settlements and industry.

Since the development of human landscapes are determined by human settlement, chapters two and three focus on the development of Wicklow's human populations, and particular attention is paid to the differing denominational trends. The evidence from Bulkeley's survey of Dublin makes the demographic revolution which occurred over the next few decades even more impressive, as within forty years, or less, Wicklow's confessional balance had changed substantially. By the 1660s, the number of Protestants in the county had increased dramatically, and Protestantism continued to increase disproportionately, at least

until the 1730s when it represented the confessional allegiances of about 30 per cent of the county's population, making Wicklow the most successful area for Protestant colonial expansion outside Ulster.³⁰ Unlike the experiences in Ulster, however, the 1730s appear to have represented a high watermark for Protestantism in Wicklow, and three decades later the Protestant population had drifted down to only about 20-25 per cent of the total. The fluctuating demographic and confessional balances in the county between 1660 and 1800 are examined in detail in chapter two.

Despite the many differences between Wicklow and her neighbours, there were obvious similarities too, and principal among these was the issue of population change. After the Cromwellian wars, the population of County Wicklow was relatively low; it was almost certainly lower in 1660 than it had been in 1641, and was probably close to the level it had been at the opening of the seventeenth century.³¹ During the next 180 years the county's population increased from this seventeenth century nadir to an all time high in the early 1840s, matching trends which were experienced in neighbouring countries, and throughout the country. This inexorable rise in local, county, regional and national population levels occurred against the backdrop of an oscillating socio-economic pendulum. Civil war in the latter years of the 1680s and harvest crises in the 1720s, 1750s, 1760s and the calamitous 1740s, for example, all operated to constrain the demographic march, whilst booms in the 1660s, the early 1680s, 1690s, 1730s and 1770s fostered population growth. After the 1760s, however, peace, and a relative absence of famine³² loosened the chains restraining the demographic beast, and it careered off on an eight-decade rampage, towards an inevitable date with a brutal Malthusian destiny. The impact of these various demographic challenges on population levels, and on family and social life, is considered in chapter three.

The second part of the thesis (chapters four to seven) proceeds to examine the effects of the interaction between people and land, the two concurrent themes which were developed in part one. The steady increase in population was inevitably accompanied by enhanced social tensions, primarily in terms of land-competition. During the seventeenth and early eighteenth centuries sufficient

land was available to facilitate the rising demand, but these tensions became more manifest in the latter half of the eighteenth century, as newly-colonised marginal lands were invariably of indifferent quality. In a homogeneous society, such pressures create serious problems, but in a society divided along religious lines, such as Wicklow was, these tensions became dangerously acute. The rising demographic tide also impacted on other aspects of societal organization. Structures required to organize society in an era low population were different to those required during the economically auspicious decades of the late- eighteenth century. At a local level the organising structure was the parish and at a national level it was the parliament, and both of these legislating bodies could impact directly on the day-to-day lives of local communities. Although parliament was undoubtedly the more powerful body, the parish was the organ of state which was closest to most parishioners, and the one with which they had their most intimate interactions. During the eighteenth century the operation of the parish metamorphosed significantly; at times at the behest of statutory instruction, and at other times under the influence of changing balances between competing forces within local societies. Chapter seven considers how a rising population impacted on community relationships and enhanced social tensions during the latter decades of the eighteenth century, and how the operation of the parish, as the local organ of the state, changed in response to varying demographics, and economic fortunes.

Demographics impacted on other organs of societal order, too. Chapter five uses the results of these investigations to consider how local and regional economies subsequently developed, in response to the demographic changes that were then taking place. The importance of fairs and markets within the rural economy is considered, and it is shown how fairs were temporally positioned to complement the requirements of the prevailing local agricultural economies.

Seasonality also impacted on choices within families and chapter four considers how choices regarding family establishment, and even family expansion, were heavily influenced by temporal patterns within the economic sphere, which were usually determined by agricultural seasonality, and prevailing weather patterns. Marriages were usually timed to coincide with lulls in agricultural employment, but the birth of a child could also be timed so as to reduce the impact

on the availability of labour during periods of peak demand. Marriage rates usually dropped during times of extreme demographic crisis, too, illustrating the important influence that public confidence in future economic conditions had on contemporary population trends. Marriage is further examined in detail in chapter six, when some of the seminal influences on population change are explored. In particular, changes in the bridal age-at-marriage, which is crucial in setting constraints on the potential growth rate of a local population, is analysed. Contemporary views on sexuality and attitudes to sexual intercourse and marriage are also explored and possible differences between Catholic and Protestant rates of illegitimacy and pre-marital pregnancy are highlighted.

In essence, therefore, the central thesis of this work is that an understanding of social and economic developments in a society cannot be achieved without considering the changing demographic frameworks which were impacting on that society. Changing population levels impacted heavily on many aspects of community and family order, and while other factors were also highly influential, it was demographics, both communal and denominational, which were the primary influences. Contemporary population levels imposed constraints on economic activity, and as the population level changed, the constraints changed also. Thus, the economic, infrastructural and structural arrangements which were feasible for thinly-populated Wicklow could be less appropriate – or even inappropriate – during periods of population advance. When land is plentiful, it is easy to be magnanimous with one's neighbours, but if land is scarce, neighbours' requirements can be detrimental to one's own quality of life. Furthermore, if acute religious differences occurred simultaneously with an increasing population-level, a reducing availability of land and rising rents, then the stage is set for any manifestation of social malcontent to be aligned along tribal or sectarian lines. Such was the situation in Wicklow, where heightened inter-ethnic tensions ultimately exploded in civil war at the end of the period under examination in this work.

The principal population sources

PRE-CENSUS TIME

As this work aims to examine how changing population levels impacted on local communities, the determination of population levels during the time-period under study is of fundamental importance (see chapter two). Unsurprisingly, determining local population levels is increasingly difficult, the further back in time one goes, although the possibilities are not always as bleak as is often presumed. For the nineteenth century, the course of population change can be determined with reasonable certainty, and a series of estimates, based on statutory census returns, commencing in 1813-5 and available decennially from 1821, represent the minimum source material available for any region. Prior to the commencement of the statutory census series a number of census-type surveys were occasionally held during the eighteenth century, and these can, provided appropriate care is exercised, present tolerably accurate snapshot population levels for specific periods during the eighteenth century. For the most part, these censuses were carried out by collectors of the hearth-tax, and some were focussed on determining the relative strength of Protestantism and Popery in the country; appendix 2 provides a brief comment on the availability of relevant hearth-tax source material for County Wicklow. In fact, there was only one national census undertaken by non-fiscal officers during the eighteenth century. This was the 1766 religious census, which was ordered by the House of Lords, and undertaken by the Protestant parish clergy. Appendix 3 provides an introduction to this unique survey.

Opportunities for estimating population levels during the latter half of the seventeenth century are even more circumscribed, and are usually limited to the immediate post-Restoration period, when various fiscal innovations, introduced by parliament,³³ required tax-collectors to compile detailed lists of names of taxpaying inhabitants. The principal source material on which post-Restoration population estimates can be constructed are the surviving summaries of the poll-taxes that were levied in 1660 and 1661 and surviving data from the hearth tax, which replaced the poll-tax, in 1662-3. Unfortunately, County Wicklow is one of five counties for which no poll tax returns have survived, but a near-complete

hearth tax roll from 1669 provides significant opportunities for estimating population levels in the county at that time. Prior to 1660 there are no adequate sources, at least for County Wicklow, on which reliable population estimates can be firmly constructed.

Of course, as was noted earlier, County Wicklow was less an homogeneous unit than an administrative convenience and, as such, it is reasonable to presume that each of the five distinct regions identified earlier for the county could have experienced independent, and unique, population histories. Because of this, the identification of regional population snapshots was the priority for chapter two. This means that although there was far more data available to determine population-snapshots for the county, unless the data contained specific barony or parish breakdowns these county-wide data were generally ignored. There are, for instance, surviving house counts for County Wicklow for 15 different years between 1706 and 1791, but only one of these datasets contains house-counts to barony level.³⁴ Furthermore, as each of the individual regions were more closely linked with regions in neighbouring counties than with the other regions within County Wicklow, it was considered fruitful to examine, where possible and appropriate, population trends in neighbouring baronies and neighbouring counties. A specific demographic trend in north Wexford, east Kildare or south Dublin, for example, is unlikely to have been constrained within county boundaries, but is sure to have been manifested in the adjoining regions in County Wicklow.

Occasionally, exceptional circumstances arose which impacted on population levels over very expansive areas. Famines of the late 1720s and the early 1740s, for example, were experienced in roughly comparable measure throughout all of Western Europe, and during such crises the trials of Wicklow's cottiers differed little from those of the Scottish crofter, the English farmer or the French *paysan*. At other junctures, therefore, – and again principally in chapter two – demographic trends in regions remote from County Wicklow, including non-bordering Leinster counties, counties outside Leinster and occasionally the trends experienced in England and other Western European countries have been employed to provide further details for Wicklow's population picture.

Thus, the 'Wicklow' that is analysed in this thesis – and most particularly in the first part of the study – is not bounded by the, somewhat irrelevant, administrative borders that were delineated at the start of the seventeenth century, but by the unspecific, and often fluctuating, boundaries that represented Wicklow's demographic spheres of influence. The sharp, crisp borders of administrative necessity are replaced by the unconventional but unrestricted boundaries – sometimes firm, other times tenuous – representing comparable demographic experiences. In fact, it is implied in chapter two that the 'demographic borders' of 'Wicklow' can be plotted and re-plotted, depending on the source material that is available for a particular period, and the examination of population trends in regions extraneous to Wicklow can help to construct the canvas on which the county's regional population pictures can be plotted.

Although the available fiscal and census-substitute material for County Wicklow allows the generation of regional snapshot population estimates for various years between the Restoration and the commencement of national statutory censuses in the nineteenth century, these snapshot views cannot present a complete picture of the population-history of a region. Population snapshots can, at best, provide only the skeletal framework for the study of regional population trends, because, while the essential crudeness of occasional snapshot estimates – usually separated from each other by two decades or more – may be suitable for tracing general population patterns over a period of time, they can often fail to highlight short-term subsistence crises and famines or cyclical economic downturns. This problem will become evident in chapter two, where the various population estimates generated for County Wicklow between 1660 and the 1840s suggest a progressive, but gradual, increase in the county population, and although some indications of periodic demographic crises during this period are evident, these indications are essentially cryptic, and unspecific. Rather, the snapshot estimates which can be generated for County Wicklow are no more than the shadows of the complete demographic form. Like shadows, they can be a guide to the broad outlines of the shape, pattern and context, of demographic change, but they fail to present any understanding of its texture, character or depth. In order to determine such subtleties, it is necessary to look to other sources.

The principal sources that have typically been commonly used by demographic historians to determine the finer elements of temporal population change in the historical past are church baptism, marriage and burial registers. In order to adequately study population change in an area using parochial registration data the registers must be largely complete, accurate and representative of the entire population. Unsurprisingly, therefore, parish-register based population studies has been little practised in Ireland, where surviving Catholic registers are rare for periods before the nineteenth century and Anglican registers record the baptism, marriage and burial data for only a small minority of the entire population of a parish or parochial union. It is no surprise that pre-nineteenth century regional population studies in Ireland have been, with the occasional exception, primarily focussed on parts of Ulster, where Protestant populations were strong.³⁵ Outside Ulster, parish register based studies are rarer, with Michael Drake's study of the 1740-1 famine and David Dickson's use of Catholic parish registers to identify demographic crises after 1750 standing as notable exceptions.³⁶

The situation in other countries, contrasts strongly with developments in Ireland. In England, where registration commenced in 1538, parish records have proved a fruitful source for the study of population trends since the founding of the Cambridge Group for the History of Population and Social Structure in 1964,³⁷ and although Britain was relatively late in commencing the taking of national censuses,³⁸ various works, based on an in-depth study of church registers by innovative demographers, including David (D. V.) Glass, Michael Drake, D. E. C. Eversley, Roger Schofield, E. A. Wrigley and J. H. Habakkuk, have succeeded in collectively shedding valuable light on Britain's modern pre-census population history.³⁹ Most important of all have been the two seminal works on English population history, *The population history of England, 1541-1871* and *English population history from family reconstitution, 1580-1837* which present a comprehensive view of temporal trends in English population history from Tudor to Victorian times.⁴⁰ These various works proved very useful during the course of this study, presenting baseline statistical data and useful methodological

approaches, as did, among others, many of the articles and publications in the *Local Population Studies* journal.

For County Wicklow, the possibilities for parish-register based demographic study are good, and arguably no other Irish county, including the Ulster counties, has surviving registers which are more suitable for the detailed study of regional demographic trends in pre-census time. Figure 4 shows Wicklow's ecclesiastical order in the middle of the eighteenth century. First, it will be shown in chapter two that County Wicklow had a more substantial Protestant population than any other in Ireland, outside Ulster, and Protestants were more evenly distributed throughout all levels of the county's social hierarchy than was the case in most parts of the country.⁴¹ Thus, any demographic determinations based on Wicklow's Anglican registers are more likely to reflect comparable demographic experiences in the Catholic community than would be the case for areas with lower Protestant populations. Secondly, and perhaps because of the strength of Protestantism and Protestant communities in the county, many Wicklow parishes opted to retain their registers in local custody after disestablishment, thereby preventing their destruction in 1922. Because of this, Anglican parish-register data is available for large parts of the county, and for many places the registration commenced either in the post-Restoration seventeenth century, or in the first decades of the eighteenth century. Thirdly, although the commencement of Catholic registration in the county typically followed patterns elsewhere, the registers for Wicklow parish have survived from 1747 and are among the earliest commencing in the country. These registers are retained in local custody and appear to have been surprisingly thoroughly recorded. As such, they facilitate substantive demographic analyses of the majority community in the county's most populous parish from the middle of the eighteenth century, while importantly also supporting comparisons with demographic trends that emerge from the Protestant data. With few exceptions, most Irish demographers have shied away from using Catholic registers, so their application in the context of this project is somewhat unique.

census in 1813-5, but this census, for a variety of reasons, failed to fully enumerate the entire country.⁴³ Since the census was not completed, the data were never presented to parliament or officially published, although William Shaw Mason, the commissioner for the enumeration, published barony-summary figures in the third volume of his *Parochial survey of Ireland*, thereby ensuring their survival.⁴⁴ For County Wicklow, the only surviving returns are barony aggregate figures for six of the seven baronies, and more detailed, but brief, data for the union of Arklow (figure 5).⁴⁵ Conveniently, Mason also noted which barony-figures had been accepted as accurate and which figures were considered deficient.⁴⁶ By the time the census was concluded, the figures for the eastern baronies of Arklow and half Rathdown and for the upland barony of Ballinacor had been approved, while the data for the baronies of Shillelagh, Talbotstown Upper and Talbotstown Lower contained, for unspecified reasons, 'some incorrectness in the original return' (figure 5). No figures appear to have been received for the coastal barony of Newcastle.

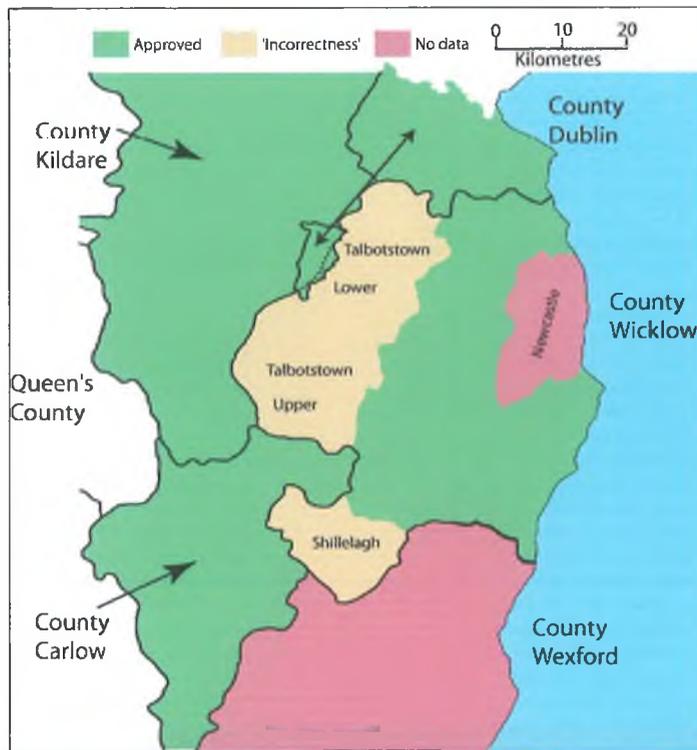


Figure 5 – Character of the surviving 1813-5 census figures for the Wicklow region, showing which the returns which were accepted by Mason (green), those which contained an ‘incorrectness’ (orange) and areas for which no returns were received (red) (source, Mason, *Parochial survey of Ire.*, iii, pp xxxii, xxxiv, xlii, xlv; maps based on Mitchell, *A new genealogical atlas of Ireland*, pp 23, 47, 62, 119, 122 and Simington, *Civil survey of Dublin*).

Note: part of the Dublin barony of Uppercross, centred on Ballymore Eustace, and sandwiched between Counties Kildare and Wicklow, was removed from Dublin and divided between those two counties after 1836, under 6 and 7 Wm IV, c. 84, s. 51. The dashed line shows the subsequent redistribution.

It is not certain how Mason and the census organisers arrived at their conclusions concerning the veracity of the returns. During the course of the census Mason had been in regular communication with various interested parties throughout the country, discussing the course of the census, so perhaps his advice as to its accuracy locally was being influenced by this communication.⁴⁷ Whilst it is not clear whether he viewed the figures as being excessive or deficient, it seems reasonable to speculate that the perceived error was one of deficiency.⁴⁸ However, bearing in mind the condition of the country and the reported suspicion regarding the census, it seems equally probable that, in spite of Mason’s evident satisfaction with them, the returns for the baronies of Arklow, Ballinacor and half Rathdown, which he considered accurate, were also, to some degree, inaccurate.⁴⁹

Historians rarely make use of the data recorded in the 1813-5 census, glibly presuming it to have been so inaccurate as to be largely worthless although it has been argued recently that the figures from the census may actually contain tolerably accurate house counts, while the population figures were probably typically less accurate.⁵⁰ Certainly, there are problems with the data, and the national population figure determined by Mason's 'ingenious friend', Patrick Lynch, likely underestimated the actual population.⁵¹ Nonetheless, it is irrational to automatically presume the 1813-5 census figures to be completely useless, and in chapter two the data from this census has been used to bridge the last county house-count figures from the hearth-tax, dating from 1791, and the figures from the 1821 census.⁵²

Although the accuracy of the 1821 enumeration has been comprehensively questioned,⁵³ this was the first statutory census to be completed, and to successfully report a national population total.⁵⁴ Despite this, many problems were encountered during its prosecution. Tax collectors, perennially unpopular popular with the general public, were chosen as enumerators and despite a campaign by Catholic Church authorities to encourage their charges to participate, a marked suspicion remained current.⁵⁵ Joseph Lee has strongly criticised this census,⁵⁶ suggesting that the officially reported national figure of 6,801,827 may have underestimated the population by up to 400,000,⁵⁷ but how many of these 400,000 may have been inhabitants of Wicklow is unclear.

The figures from the 1821 census, presented to parliament in 1823,⁵⁸ are far superior to those available from the 1813-5 initiative. In the first instance, it is probable that the figures are generally more accurate than the earlier enumeration attempt. Secondly, the quantity of data available is considerably greater. For the 1821 census, data was compiled on a townland basis⁵⁹ and in the published returns data are available to parish level (unlike the 1813-5 returns, which have typically only survived to barony level). The data available includes the total number of houses that were inhabited, uninhabited and under construction, the number of families and the number of males and females in each parish. Social statistics are also available, including the number of persons employed in various categories of employment, and the number of male and female pupils in schools. Where

parishes contained large towns or villages, the specific data for those urban areas is also presented and an 'Observations' column often provides useful information, including the presence of schools, and the size of smaller villages within the parish.

The succeeding census, conducted in 1831, has long been ridiculed by historians as having achieved the unenviable task of overestimating the population of the country. This belief, originating from a comment of Thomas Larcom, the 1841 census commissioner, that the 1831 enumerators 'considered that they would be paid – and in many cases were paid – in proportion to the numbers they enumerated',⁶⁰ conjures up the unlikely spectacle of insatiable enumerators liberally sprinkling their returns with 'virtual' houses, headed by fictitious O'Byrnes, Kavanaghs and O'Tooles.⁶¹ Even today, Larcom's comments on the preceding censuses – that the census of 1821 underestimated and the census of 1831 overestimated the population – are often lazily repeated by historians, before they proceed to either ridicule or ignore the 1831 data. In fact, however, the national figure reported by the 1831 census – a population of 7.767 million people⁶² – was probably closer to the actual population at the time that census was conducted than were the figures reported by any of the other three pre-Famine censuses.⁶³ Rather than overestimating the population, both Lee and Boyle and Ó Gráda have suggested that the 1831 national population estimate was also an underestimate, but only marginally so. Lee has argued that the national population was of the order of 7.9 million (underestimate of 1.7 per cent) and Boyle and Ó Gráda calculated a comparable figure of population of 7.847 million (underestimate of just 1.0 per cent).⁶⁴

That the 1831 census actually reported a relatively accurate national population estimate should not, however, instil in the historical researcher a false sense of confidence in the figures reported for a local area. The difference between the national total reported by the census and the actual national population at the time is no more than the aggregation of all the respective differences between the equivalent figures at local levels. Thus, exaggerated populations in some parishes could cancel out deficient recording in others, producing an accurate aggregate which masks local inaccuracies. Furthermore, this census seems to suffer more

than its predecessor had from confusion over the location of parish and barony boundaries, which, in pre-Ordnance Survey days, was always likely to present difficulties. Within Wicklow, for example, the boundaries of Powerscourt parish were uncertain, resulting in spurious figures for that parish. Eugene O'Curry, during the course of the Ordnance Survey, spoke of two townlands which 'we are told here belong to the parish [Powerscourt], but which are placed by the Name Books in the Parish of Kilmacanoge' and lamented that he did not have the parish and barony boundaries to hand as 'the Name Books and residents vary very much in those matters'.⁶⁵ The impact of uncertain boundaries is illustrated by the census returns of population for Powerscourt and Kilmacanoge parishes reported by the three censuses between 1821 and 1841. Between 1821 and 1831 the population of Powerscourt was reported to have increased by 55 per cent, only to decline by 22 per cent between 1831 and 1841, while Kilmacanoge's population reputedly fell by 37 per cent between 1821 and 1831, but increased by more than 80 per cent over the next decade (figure 6).⁶⁶ Such wildly fluctuating figures are doubtful, and are almost certain to reflect the confusion over the parish boundaries, which were reported by O'Curry in 1838. It would seem that part of Kilmacanoge had been included in Powerscourt in 1831, probably on the basis of claims by local residents, but in 1841, with the boundaries immutably delineated, the mistake was not repeated. The proportionate increases in population between 1821 and 1841, 21.4 per cent for Powerscourt and 15.6 per cent for Kilmacanoge, seem more reasonable.

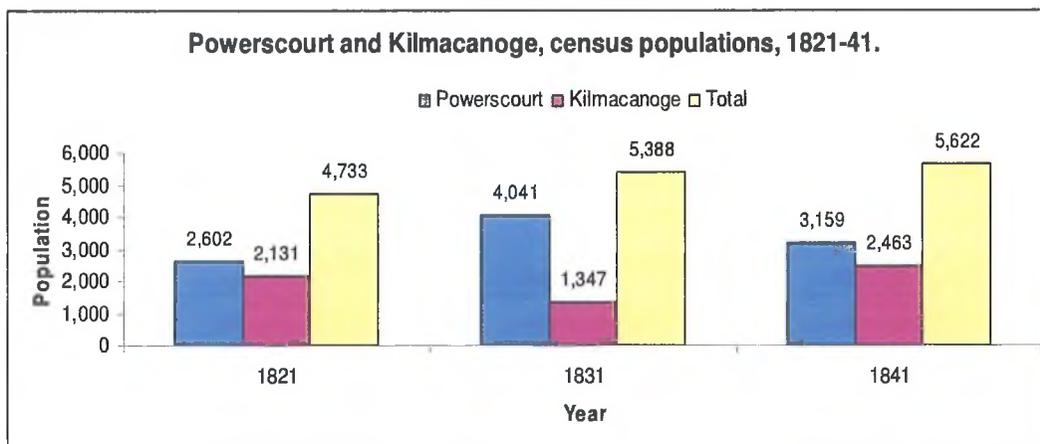


Figure 6 – Population of Powerscourt and Kilmacanoge parishes reported by the 1821, 1831 and 1841 censuses. Confusion over parish boundaries are the likely cause of the fluctuating trends recorded by the censuses (source: *Census Ire., 1821*, p. 128; *Census Ire., 1831*, p. 116; *Census Ire., 1841, addenda, Wicklow*, p. 10)

The published census figures for 1831 are comparable in form to those of 1821, containing counts of houses, people and families on a parish basis. Employment data is also available, although education information, provided in 1821, was not inquired into. The agricultural data are more detailed than those which were published in 1821 and counts of male and female servants per parish are also presented. Separate figures are presented for urban areas, as in 1821.

The last pre-Famine census was held in 1841. Unlike the three previous initiatives, which had been *viva voce* inquiries conducted by enumerators over a long period of time, this census was held on one day,⁶⁷ with the forms being filled out by the household heads. Whilst it has been generally assumed by generations of historians, largely on the basis of Larcom's claims, that the 1841 census was more accurate than the preceding national enumerations, modern research does not always concur,⁶⁸ and this census presents considerable challenges for the historian. Notably, substantial boundary changes had been effected in the 1831-41 period as a result of various acts including the Valuation of Land Act of 1836,⁶⁹ which means that the geographical extent of parishes, baronies and even counties could be different in 1841 than they had been ten years previously. The majority of the changes were both practical and necessary, as over centuries many townland-enclaves had emerged at some remove from their parish, barony or even from their county. Anomalous geographic oddities – the townland of Bennekerry

in Urglin parish, for instance, was transferred from Rathvilly barony, some 15 kilometres distant, to Carlow barony, within which it had been an enclave⁷⁰ – were thereafter, largely resolved. Dublin county and city received particular attention and substantial boundary changes were made to many Dublin baronies, and particularly to the disjointed barony of Nethercross.⁷¹

While most of the changes took place within county boundaries, some significant transfers of land between counties were effected, which impacted on Wicklow's territorial boundaries. An enclave of County Dublin, of some 12,000 acres extent, sandwiched between Counties Kildare and Wicklow, was redistributed between those two counties (figure 5). Thus County Kildare gained an additional 9,400 acres of land and more than 3,100 people and Wicklow an additional 2,500 acres and almost 1,000 extra people through territorial transfers rather than population increase.⁷² The enormous barony of Ballinacor was also subdivided into Ballinacor North and Ballinacor South between 1831 and 1841.⁷³ At a parish level numerous additional changes also occurred. These included the formation of the new parish of Calary parish, out of parts of the parishes of Powerscourt, Kilmacanoge, Derrylossary, Newcastle Upper and Delgany (which resolved the issue, earlier noted, concerning the confusion over the boundaries of Powerscourt and Kilmacanoge),⁷⁴ the subsuming of Glendalough parish, which had been enumerated separately in 1821 and 1831, into Derrylossary parish and the creation of Redcross out of territories in neighbouring Kilbride, Dunganstown and Castlemacadam.⁷⁵

This census contained many innovations, compared with the three preceding enumeration attempts. That the enumeration took place on one particular day and that the forms were to be completed by the individual households rather than by enumerators has already been alluded to. Additionally, questions concerning literacy, conjugal status and detailed occupations, among others, were asked, and information on the quality of housing was also published.⁷⁶ Also, in 1844, individual addenda to the census were published for each county which, for the first time, presented house (inhabited, uninhabited and building), family and person (males and females) totals for every townland in the country.⁷⁷

REFERENCE VALUES

When considering population levels, and more particularly, rates of population change for an area, it is useful to have reference values for annual population increase, against which regional rates of population change can be compared. By 1820 the phenomenal rate of population increase, which had commenced in the latter third of the eighteenth-century, was slowing,⁷⁸ although whether this slow-down had commenced as early as 1813 is less clear.⁷⁹ Table 1, showing some estimates of Irish pre-Famine population growth, clearly illustrates that rates of population growth can vary considerably. The most illuminating data are those figures presented in the 'Mean' column as this represents the annual rate of change for the mean population level, estimated for various years. The mean rate of population increase ranges from as low as -1.05 per cent (population decline) in the 1732-44 period, to 3 per cent, in the brief period between 1749 and 1753.

Table 1 – Estimates of the annual rate of Irish national population change, various periods.

Year	Span	No. of years	Population (millions)			Mean annual rate of population change				
			Min.	Max.	Mean	Min.	Max.	AbsMin	AbsMax	Mean
1706			1.75	2.06	1.91					
1712	1706-1712	6	1.98	2.32	2.15	2.1%		-0.7%	4.8%	2.0%
1725	1712-1725	13	2.18	2.56	2.37	0.8%		-0.5%	2.0%	0.8%
1732	1725-1732	7	2.16	2.53	2.35	-0.1%		-2.4%	2.2%	-0.2%
1744	1732-1744	12	1.91	2.23	2.07	-1.0%		-2.3%	0.3%	-1.1%
1749	1744-1749	5	1.95	2.28	2.12	0.4%		-2.6%	3.6%	0.4%
1753	1749-1753	4	2.2	2.57	2.39	3.0%		-0.7%	7.1%	3.0%
1791	1753-1791	38	4.42	4.42	4.42	1.4%	1.9%	1.4%	1.9%	1.7%
1821	1791-1821	30	7.2	7.2	7.2	1.6%		1.6%	1.6%	1.6%

Note: The Min. and Max. annual rates of population change figures represent the calculated annual rate of population change during the period for the minimum population figures and the maximum population figures. As Dickson *et al.* presented estimated population ranges rather than specific figures this means that, if the ranges are correct, then the population may have increased from the minimum population given for a particular year to the maximum population given for another year or *vice versa*. Thus the columns, 'AbsMin' and 'AbsMax' represent the rate of change from the maximum of one year to the minimum of the next year and the rate of change from the minimum of one year to the maximum of the next year respectively – the absolute extremes. The Mean column shows the mean annual rate of change for the mean population level (source: The Min. and Max. population figures are from Dickson *et al.*, 'Hearth tax, household size and Irish population change, 1672-1821', p. 156. The Mean population figure is the mean of the minimum and the maximum population estimates).

Data from other countries can provide additional growth-rate reference figures. In appendix 4, growth-rate estimates for four European countries

(England, 1540 – 1869); Scotland, 1801 – 1869, Norway, 1735 – 1869 and France, 1700 – 1865) are discussed which show a contrasting pattern with the Irish demographic figures. Notably, none of these countries experienced growth rates comparable to the reputed Irish rates, particularly during the period of sustained Irish population growth between 1750 and 1820, but even during this period, Irish annual growth rates do not appear to have exceeded approximately 1.7 per cent.⁸⁰ Clearly, therefore, in spite of Ireland's unique demographic experiences, it would appear wise to be suspicious of prolonged periods of very high rates of population growth in any Irish data. While high rates of growth may be sustainable in the short run, they are unlikely to have been maintained over a long period, in an era when Malthusian positive checks were infrequent, but not uncommon, visitors. The national annual growth rate in the years 1749-1753 (a mean rate of growth of 3.0 per cent), for example, appears to have been high, and while exceptional circumstances may have prevailed at that time, such high rates could not be expected to have been maintained for more than a few years.⁸¹ For the purpose of conveniently categorising rates of population change, the following terminology will henceforth be used when discussing mean annual rates of population change, based on the figures presented in table 1 and on the comparable European data, presented in appendix 4.

Table 2 – Categorisation of mean annual rate of population-growth bands.

Estimated mean annual rate of population growth	Categorisation	Population doubles
< 0 per cent	Negative	N/A.
>= 0 per cent, < 0.5 per cent	Low	> 138 years
>= 0.5 per cent, < 1.0 per cent	Moderate	70 – 138 years
>= 1.0 per cent, < 1.5 per cent	High	47 – 70 years
>= 1.5 per cent, < 2.0 per cent	Very high	35 – 47 years
>= 2.0 per cent	Dubiously high	< 35 years

Based on Irish national estimates and comparable data from elsewhere, one can conclude that annual growth-rate estimates of up to 1.5 per cent should not be of particular concern, depending, it must be stated, on contemporary national, regional or local historical experiences. Growth-rate figures of between 1.5 and 2.0 per cent, while admittedly very high, can also be viewed as acceptable during periods of particularly rapid population growth, such as was experienced in

Ireland in the late eighteenth and early nineteenth centuries, or in a population recovering from a serious demographic crisis (table 1).⁸² If however, calculated population growth rates exceed 2.0 per cent per annum, particularly over a prolonged period, one would be wise to be wary of such data, and although such a figure may be sustainable over a short number of years, it is unlikely that such a high rate of population increase could have been sustained in the long run in any society living in the cool shade of Malthus's shadow.

ESTIMATING POPULATIONS FROM CENSUS-SUBSTITUTE SOURCE MATERIAL

As has been noted above, for the pre-census period historians have had to rely on taxation records and on ecclesiastical surveys for estimating Irish historical population levels. Clearly, the principal difficulty arising with these sources revolves around determining (or at least estimating) the extent to which the data in the sources was representative of the entire population of an area. For instance, taxation rolls, depending on the nature of the taxation, typically listed the names of the taxpaying household-heads, and generally omitted data on all others inhabiting an area, including the spouse and children of householders, and lodgers or extended family members that may have been cohabiting. Also typically omitted were householders whom were legally exempted from the tax and householders who, either through deception on their part or carelessness, laziness or fraudulence on the part of the tax-collector avoided being recorded in the taxation statistics. Early statutory censuses similarly suffered from under-enumeration of the national population.

Thus, to transmogrify census-substitute or early census returns into population estimates it is necessary to attempt to account for the various deficiencies in the returns. Thus, the following model is proposed, which presumes a single- or a multi-stage process, depending on the nature of the source. In order to explain the process, all available census and census-substitute sources will be categorised as one of the following:

1. A 'people enumeration' – the early statutory censuses.
2. A 'household enumeration' – a census which aimed to enumerate households rather than people, such as the 1766 religious census.

3. A 'taxation enumeration' – a taxation enumeration, such as the hearth tax.

Models for these three types of enumerations, which hereinafter will be termed *population-estimation* models, have been developed, and are shown in figure 7.

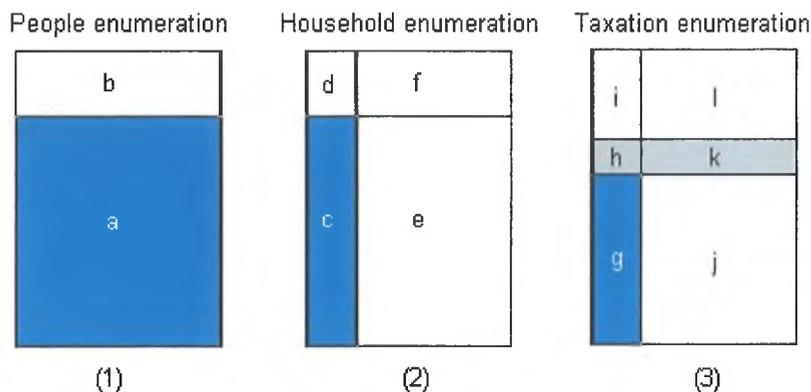


Figure 7 – *Population-estimation models*: presenting three typical views of how the data in early census substitutes sources may represent the entire population of an area. The shaded areas 'a', 'c' and 'g' indicate the proportion of the total population enumerated by the source in question.

The first two types of enumerations, which originated from statutory censuses (figure 7, model 1) and early census attempts (figure 7, model 2), describe sources which aimed to either enumerate the total population (*people*) or a defined subset of the population (usually the number of *households*) of an area. In each model, the total population is represented by the complete rectangle whilst the blue shaded area represents the results of the enumeration. If the census aimed to enumerate all persons in the area (figure 7, model 1), then the total population of the area at the time of the census was simply the aggregation of the enumerated population ('a') and the total number of people who avoided being enumerated ('b'). Since there are few surviving 'people enumeration' attempts for Wicklow for the eighteenth century (appendix 3, figure 183), the 'people enumeration' model (figure 7, model 1) is usually only applicable for early statutory censuses. Essentially, therefore, for a survey that aimed to be a 'people enumeration', the historian's task involves estimating the degree of under-enumeration in the return

in order to estimate the total population at the time of the particular census ('a' + 'b').

The 'household enumeration' model (figure 7, model 2) describes the method for converting counts of a subset of the population (the number of householders, the number of a particular religion or perhaps the number of householders of a particular religion) into a population estimate. In this case, the entire population is represented by segments 'c', 'd', 'e' and 'f' although the censuses only aimed to enumerate a clearly defined subset of the population (segments 'c' and 'd') rather than the entire population. However, although the census will have aimed to enumerate the entire subset, inevitably a portion of the subset will have been overlooked by the enumerator; this proportion is represented in the model by segment 'd'. When dealing with this type of source, therefore, it is necessary to first determine the degree of the underestimation in the enumeration ('d') and then derive a population estimate by employing an appropriate multiplier to convert the estimate for the size of the subset ('c' + 'd') into an estimate for the total population ('c' + 'd' + 'e' + 'f').

The process involving a 'taxation-enumeration' requires an additional step. Since these 'non-census' surveys often stemmed from church, state or estate policies, and often involved the payment of money to the enumerating party, they were viewed with suspicion by the population. Census-substitute material stemming from these 'non-census' type enumerations are usually tax-collectors records, cess or rental lists or muster rolls and although each may be distinctly different in purpose and form, two common threads run through them. In the first instance, they are typically counts of a specific subset of the entire population. Thus, if the total population is represented by segments 'g', 'h', 'i', 'j', 'k' and 'l', segments 'g', 'h' and 'i' represent the extent of the subset that was to be enumerated. A second common feature, however, was that each of these types of enumerations was generally perceived, in the main, as an unwelcome intrusion into the social or economic lives of the public. There was, thus, a significant incentive for people to conspire to avoid the enumerator,⁸³ to connive to fulfil one of the various exemption criteria⁸⁴ or, in the case of taxation, to organise with others in the locality to pressure the collector into accepting a reduced amount of

money.⁸⁵ Householders, who avoided enumeration for one reason or another *and who did not appear in the tax collectors' lists*, are represented in figure 7, model 3 by the segment labelled 'i'.

For County Wicklow, the only type of 'taxation enumeration' source to have survived in the returns from the hearth tax for various years. However, where money is involved, so too lies the possibility of fraud, and when strict inquiry was conducted into the hearth-tax collection process towards the latter part of the eighteenth century the tax collection officials were exposed as having 'suppressed several houses which they had returned in their survey books ... and kept the money to themselves'.⁸⁶ Although Dickson *et al.* have argued that corrupt practices among the hearth-tax collection officials only became acute from the mid-eighteenth century onwards, nonetheless, fraud is likely always to have been an issue in the tax collection process, from its inception in 1662-3.⁸⁷ In figure 7, model 3, segment 'h' represents the body of household heads in a population who paid the tax but who, through fraud on the part of the tax collector, were not recorded in the official returns. Thus, on any tax roll, although segments 'g' and 'h' (figure 7, model 3) represent the households that *should have* appeared on the list of paying individuals, the *actual list of households recorded by the enumerator* is represented just by segment 'g'. Thus, to convert a 'taxation enumeration' listing into a population estimate it is necessary to first estimate what proportion of the total number of householders ('g' + 'h' + 'i') is represented by the actual listing of householders ('g'), and only when this is done can a population estimate be derived, by employing an appropriate multiplier to convert the estimate for the size of the population subset (all householders, or 'g' + 'h' + 'i') into a population estimate. Although all 'non-census' sources may not fit directly into this convenient example – a muster roll typically aimed to record all able-bodied adult (possibly Protestant) males, for instance – nonetheless the method of determining deficiencies still holds. These three models are used extensively in chapter two, where the accuracy of the various sources censuses and census substitutes for County Wicklow is considered, and 'snapshot' population estimates are derived.

HISTORIOGRAPHY

Population-studies has had a long history in Ireland. The earliest statistical attempts at determining the national population level were undertaken by Sir William Petty in the decades after the Restoration, but the task became increasingly popular in the eighteenth century when numerous writers and social commentators, including Arthur Dobbs, solicitor general of Ireland, Arthur Young, the noted agriculturalist, and Revd John Howlett and Richard Price, two contributors to the population controversy published various estimates for the contemporary national population-level.⁸⁸ The estimates proposed by these, and others, were based on house-counts which emerged from the annual returns of the hearth-tax collectors, and contained little, if any, critical analysis of the quality of the source data. Following a fundamental structural reform of the hearth tax collection process in the 1780s, two notable studies of contemporary Irish population levels appeared; from Gervais Parker Bushe in 1789 (see appendix 2) and Thomas Newenham in 1805. After these, the regular surveying of the national population by statutory censuses meant that traditional methods of estimating the national population were unnecessary, and interest in Irish population studies waned.

In the 1940s and 1950s Kenneth Connell's studies, including his seminal work, *The population of Ireland, 1750-1845*, rekindled academic interest in the historical course of Irish population levels, but a perceived lack of source material discouraged substantial study in the field. Thus, it was not until the establishment of the Cambridge Group in the 1960s, and with their introduction of new, rigorous methods for critically analysing source material, that Irish population studies again moved into the mainstream of historical study, if briefly. During the 1970s Valerie Morgan and William Macafee pioneered the use of Irish Anglican parish registers in a number of studies focussing on settlement patterns and social order in small areas of Ulster, including urban Coleraine and south County Derry.⁸⁹

Later, in the early 1980s, David Dickson, Cormac Ó Gráda and Stuart Daultrey adopted a different slant. By moving the focus from the parish level to the national level and through a unique interpretation of the surviving data from the hearth tax, they revisited the topic of national population levels, which had

failed to attract much interest since Connell's study, three decades previously.⁹⁰ The new series of national and provincial population levels that resulted from David Dickson *et al.*'s work remains the most lucid interpretation of Irish population history between the late seventeenth and the early nineteenth centuries, and has provided important demographic guidelines for the purposes of this study. Since the publication of this national study, the focus of Irish population studies has broadly shifted back to the local level, with Colin Thomas's detailed examinations of population change in Derry city between since 1650, representing the first significant demographic inquiries focusing on a large Irish urban setting, and William Macafee examination of population change in County Tyrone from 1600 attempting to recreate population history at the level of the county.⁹¹

In spite of the sporadic interest shown by Irish historians in determining population levels, however, few attempts have been made to expand the focus of Irish demographic studies far beyond the re-creation of regional population levels, and the identification of periods of demographic distress. But experience from other countries shows that the results of demographic interpretations of history can be far more propitious. Emmanuel Le Roy Ladurie's masterful study of *Les paysans de Languedoc*, for example, examines 'the Malthusian dilemma of a traditional agrarian society incapable, over the long run, of preserving a balance between population and food production', which shares an obvious resonance with Ireland's historical experience. Taking a long view of Languedoc society, Le Roy Ladurie teases out some of the impacts of fluctuating population-levels during the three centuries following the Black Death, by examining how social organisation, land holding and agricultural practice changed in response to the ebb and flow of population pressures

Some English and American historians have adopted a similar approach. Philip Greven's *Four generations*, for example, studies societal order in Andover, Massachusetts, during the first hundred years of the colony's existence (1646-c. 1760), by plotting the expansion of the colony, and outlining how family structure responded to this advance.⁹² In particular, he notes that the options regarding inheritance which were available during the initial years of the colony, when the population was low, narrowed considerably over the course of a century during

which the colony had experienced sustained, rapid population growth. Kenneth Lockridge's study of Dedham, Massachusetts, used a similar approach, 'taking this single community, from its inception as a village of several hundred souls through the first century of its existence, as it grew into a provincial town of nearly 2000 inhabitants', examining the impact of this growth on the town's social structures and social orders.⁹³ Essentially Greven's and Lockridge's principal arguments are that even apparently diverse features such as inheritance patterns, standards of living, poverty, health, longevity and migration levels were all inherently tied to the demographic characteristics of a particular region.

Studies of the quality, scale and thoroughness of Greven's, Lockridge's and Le Roy Ladurie's are conspicuously lacking on the broad landscape of Irish historical study. While social studies abound, the determination of the impact of demographic change on social history remains little studied, and relatively opaque. The recent arrival in print of Peter Connell's *The land and people of County Meath*, bodes well for the future, however. Connell's work represents an impressive initial foray into the complex linkages between regional population levels, and agriculture, society and the characteristics of the local economy. Focussing on the period after 1750, he observes a steep rise in the county's population throughout the county, with the increase being particularly acute in the western parts.⁹⁴ He then succeeds in tracing some of the economic consequences of this increase, including 'the growth in commercial tillage farming, the emergence and subsequent decline of a domestic linen industry, the widespread adoption of the potato ... while these developments can be seen as driving change, they acted against a bulwark promoting continuity – the dominant position of livestock production in the county's agriculture'.⁹⁵

Useful as Connell's work is, however, it remains focussed on the century preceding the Famine, and only occasionally ventures into the earlier part of the eighteenth century, and studiously avoids any consideration of demographic developments at an earlier period. Thus, this study of County Wicklow has broken new temporal ground by attempting to conduct a demographics-based study of social and economic developments in a part of Ireland, but from an earlier period than has previously been considered. It will be seen that population trends were a

key factor influencing the social, economic and denominational developments within the region between the Restoration of Charles II and the Great Famine of the mid-nineteenth century. Some of the questions that are posed in this thesis have never before been asked of Irish sources, and many of the resulting findings have never previously been presented in any Irish context.

In the following pages, new light is cast upon many aspects of Wicklow's social history, which have hitherto remained hidden. It will be shown that strong cyclical links are evident between a region's demographic characteristics and its physical landscape, between its physical landscape and its agricultural seasonality, between its agricultural seasonality and its economic cycles, and between its economic cycles and its demographic characteristics. However, perhaps the most important question that has been answered during this work is not related to the distinctiveness of Wicklow's demography, or the specifics of its regional growth. Arguably, the most important finding in this work is that, despite the paucity of source materials for Irish demographic study and in spite of previous presumptions, it is not impossible to attempt to consider how changing population levels in a region may have impacted on an area's social and economic development in past time, and the results from such a study can be surprisingly fruitful.

References, introduction

¹ The bounds of County Wicklow were determined at an inquisition held at Newcastle on 8 January 1606 (John Erck (ed.), *A repertory of the inrolments on the patent rolls of chancery, in Ireland* (2 vols, Dublin, 1846), i, no. 1, pp 236-8 (hereinafter Erck (ed.), *Repertory*). However, 'haveinge viewed and surveyed the irish territorie, called Shillelagh ... and findinge the same to be in noe countie, or doubtfeul in what countie lieth', Shillelagh was also to be included in Wicklow (10 January 1606, *ibid.*, pp 238-9).

² James Morrin (ed.), *Calendar of the patent and close rolls of chancery of Ireland of the reign of Charles the First, first to eight year inclusive* (Dublin, 1863), pp 266-7 (hereinafter *Cal. pat. rolls Ire.*, *Chas I*).

³ Brian Donovan, 'Tudor rule in Gaelic Leinster and the rise of Feagh McHugh O'Byrne' in Conor O'Brien (ed.), *Feagh McHugh O'Byrne, the Wicklow firebrand*, pp 118-20 (hereinafter cited as Donovan, 'Tudor rule in Gaelic Leinster').

⁴ Donovan, 'Tudor rule in Gaelic Leinster', pp 133, 135.

⁵ Richard Butler (ed.), 'A treatice of Ireland by John Dymmok' in *Tracts relating to Ireland, printed for the Irish archaeological society* (2 vols., Dublin, 1842), ii (hereinafter cited as Butler (ed.), 'A treatice of Ireland by Dymmok'). Dymmok's tract was written c. 1600. 'The county of Dublin conteyneth ... the mowtaines of the Obirnes, O'tooles, and Banilagh [sic, Raghnaill], called Pheagh Mac Hughs country'. Another county called Ferns was also established at the same time (*ibid.*, p. 13). A commission was established in 1577 to create County Wicklow, the area being 'in effecte waste and desolate, other than inhabited with a few idell and evell-disposed persons' (*The Irish fiants of the Tudor Sovereigns, with intro by Kenneth Nicholls and preface by Tomás Ó Canann* (4 vols, Dublin, 1994), ii, p. 401, no. 3003). The commission failed to create the county and another commission was subsequently established (date of commission, 21 February 1578/9), which seems to have concluded the shiring (*Calendar of the Carew manuscripts preserved in the archiepiscopal library at Lambeth, 1589-1600* (6 vols, London, 1867-73), iii, p. 189) (hereinafter cited as *Cal. Carew MSS*). Nicholls dates the creation of the county to 1577 but 1579 seems a more likely date (K. W. Nicholls, 'Counties, 1542-1613' in *N.H.I.*, ix, p. 108 (map, p. 43)).

⁶ Stanley Lane Poole papers (N.L.I., MS 8818, folder 1, loose flysheet).

⁷ James Hardiman (ed.), 'A statute of the fortieth year of King Edward III, enacted in a parliament held in Kilkenny, A.D., 1367' in *Tracts relating to Ireland, printed for the Irish archaeological society*, ii, p. 141.

⁸ Butler (ed.), 'A treatice of Ireland by Dymmok', p. 13.

⁹ The inquisition held to determine the borders of the new county was held at Newcastle on 8 January 1606 (Erck (ed.), *Repertory*, i, no. 1, pp 236-8).

¹⁰ Wicklow's Gaelic forces were defeated in 1597.

¹¹ Erck (ed.), *Repertory*, i, no. 1, p. 237.

¹² King to Devonshire, 18 Sept. 1603 (*Cal. S.P. Ire.*, 1603-8, no. 139, p. 88).

¹³ Davys to Salisbury, 12 Nov. 1606 (*Cal. S.P. Ire.*, 1603-8, no. 33, p. 16).

¹⁴ Chichester to Salisbury, 26 Jan. 1607 (*Cal. S.P. Ire.*, 1603-8, no. 120, pp 94-5).

¹⁵ John Davies, *A discoverie of the true causes why Ireland was never entirely subdued, nor brought under obedience of the Crowne of England, untill the beginning of his Majesties happie Raigne* (London, 1612), p. 266.

¹⁶ L. J. Arnold, *The Restoration land settlement in County Dublin, 1660-1688* (Dublin, 1993), p. 143 (hereinafter cited as Arnold, *The Restoration land settlement in County Dublin*); *Irish patent rolls of James I: facsimile of the Irish Record Commission's calendar prepared prior to 1830*, pp 17, no. xcvi, 141, no. xiv (hereinafter cited as *Cal. pat. rolls Ire.*, *Jas. I*). The area was established as a manor in May 1611 (*ibid.*, pp 17, no. xcvi, 199, no. xvi). Kilruddery was granted to the William Brabazon in 1619 (*ibid.*, p. 447, no. xix).

¹⁷ Arnold, *The Restoration land settlement in County Dublin*, p. 143.

¹⁸ Gabhall Raghnaill territory around Ballinacor was reduced from about 153,000 acres, to just 20,000, by 1641 (Seán MacAirt, *Leabhar Branach, the book of the O'Byrnes*, (Dublin, 1944), p. ix; *The last county, the emergence of Wicklow as a county, 1606-1845*, p. 12).

¹⁹ Arnold, *The Restoration land settlement in County Dublin*, p. 144.

²⁰ M. V. Ronan (ed.), 'Archbishop Bulkeley's vistingation of Dublin, 1630' in *Archiv. Hib.*, viii (1941), pp 84, 89 (hereinafter cited as Ronan (ed.), 'Archbishop Bulkeley's vistingation'). The Powerscourt figure is likely an overestimate, and was probably meant to be 20, rather than 200, as 200 at divine service would equate to a total Protestant population of c. 500 – 750, which cannot possibly have been the case in the 1630s. It is also possible that since this was the only church in repair in the locality, it was attracting worshipers from surrounding parishes, as was occurring, for example, at Athy (see figure 3).

²¹ In Delgany in 1692 there were twenty communicants on Whit Sunday, twenty-nine on Easter Sunday and fifty-nine on Christmas Day; Delgany Vestry Book, p. 3 (in local custody). It seems probable, although it is not specified, that the attendance on other Sundays was lower. Easter was the most important Christian service and church attendance on Easter Sunday was mandatory. The 1634 canons of the Church of Ireland specified that the names of parishioners not attending Easter Sunday service were to be reported to the bishop. Whether this was ever done or not is doubtful – certainly, the lists would typically have been very long! (Gerald Bray (ed.), *The Anglican canons, 1529-1947* (Woodbridge, 1998), p. 515, no. 63 (hereinafter cited as Bray (ed.), *Anglican canons*)). At Monaghan in 1700, only between 160 and 180 took communion at Easter, although the parish was populated by 665 families and Protestants were significantly more numerous than either Catholics or Dissenters (Toby Barnard, 'The eighteenth-century parish' in Elizabeth FitzPatrick and Raymond Gillespie (ed.), *The parish in medieval and early modern Ireland, community, territory and building* (Dublin, 2006), p. 307 (hereinafter, Barnard, 'The eighteenth-century parish'))).

²² Ronan (ed.), 'Archbishop Bulkeley's vistingation', pp 84, 91.

²³ Ronan (ed.), 'Archbishop Bulkeley's vistingation', pp 79, 91.

²⁴ Ronan (ed.), 'Archbishop Bulkeley's vistingation', pp 78, 82, 84, 92.

²⁵ Court of chancery: entry book of recognizances, 1570-1634 (British Library MS BM Add MS 19,838 (microfilm copy available in N.L.I., microfilm nos p. 509, 510); M. V. Ronan, 'Royal vistingation of Dublin, 1615' in *Archiv. Hib.*, viii (1941), pp 1-55.

²⁶ This is significant, and probably underestimates the extent of Irish language preaching at this time. In west Wicklow and east Kildare, for example, John Bath, who preached at Ballymore (Kildare), Thaddeus Cor, who preached at Hollywood and Donard (Wicklow) Gurney Fletcher (Yago, Co. Kildare) and Walter Young (Rathmore, Co. Kildare), were in possession of Irish language common prayer books. However, Thaddeus Cor also preached at Burgage and Boystown, Walter Young preached also at Tipper and Tipperkevin and John Bath preached at Cotlandstown. It seems likely, therefore, that these ministers, or curates, were preaching, at least partly in Irish, throughout a wide area of east Kildare and west Wicklow. It is notable that this is the only region where Irish language books were noted for the Dublin diocese, but this is because the distinction was simply not being made elsewhere in Dublin. (Ronan, 'Royal vistingation of Dublin, 1615', pp 28-31, 36-45, 52-5. See also T.C.D. MS 1066, pp 25-37, 39-50 for Kildare; *ibid.*, pp 93-114, 117-32 for Ferns; *ibid.*, pp 159-72, 175-88 for Leighlin. Also, see Alan Ford, *The Protestant Reformation in Ireland, 1590-1641* (Dublin, 1997), pp 106-26 for a discussion on Protestant preaching through Irish and the translation of scripture into Irish).

²⁷ Ronan (ed.), 'Archbishop Bulkeley's vistingation', pp 81, 83, 89.

²⁸ Ronan (ed.), 'Archbishop Bulkeley's vistingation', p. 88.

²⁹ Historical collections, relating chiefly to Ireland (T.C.D., MS 843, p. 501). The two county MPs were Gerald Byrne of Tynepark and Phelim McFeagh Byrne who were paid aggregated expenses of £198:13:4. The salary paid per day for MPs was 13:04 for knights, 10:00 for citizens and 6:08 for burgesses (*ibid.*, p. 502).

³⁰ Louis Cullen, *The emergence of modern Ireland, 1600-1900* (London, 1981), p. 210 (hereinafter cited as Cullen, *Emergence of modern Ireland*).

³¹ Equally, the national population, which may have stood at 2 million in 1641, may have been closer to 1.5 million in 1660 (Seamus Pender, *Census of Ireland, circa 1659, with essential materials from the poll money ordinances, 1660-1661* (reprint, with new intro. By William Smyth, Dublin, 2002, of orig ed., Dublin, 1939), pp v, xl (hereafter cited as Pender, with intro by Smyth, *Census Ire., c. 1659*)).

³² David Dickson, 'The gap in famines: a useful myth?' in Margaret Crawford (ed), *Famine: the Irish experience, 900-1900* (Edinburgh, 1989), pp 96-111 (particularly pp 98-101, 105) (hereinafter cited as Dickson, 'Gap in famines'; book cited as Crawford (ed.), *Famine, the Irish experience*).

Also, 1800-1 when 40,000 died nationally (Thomas Newenham, *A statistical and historical inquiry into the progress and magnitude of the population of Ireland* (London, 1805), pp 131-2 (hereinafter, Newenham, *Stat. inq. of Ire.*)). Both Raymond Refaüssé and James Kelly note the early 1780s as a period of substantial subsistence crisis, but the impact on Wicklow, may not have been calamitous (Refaüssé, Raymond. The economic crisis in Ireland in the early 1780s (unpublished Ph. D. thesis, University of Dublin, 1982); James Kelly, 'Scarcity and poor relief in eighteenth-century Ireland: the subsistence crisis of 1782-4' in *I.H.S.*, xxviii (1992-3), pp 38-62 (hereinafter cited as Kelly, 'Scarcity and poor relief in Ireland, 1782-4')).

³³ The first of these initiatives was instigated by the General Convention, on 24 April 1660 (Pender, with intro by Smyth, *Census Ire., c. 1659*, pp 610-27).

³⁴ D. Dickson, C Ó Gráda and S. Daultrey, 'Hearth tax, household size and Irish population change, 1672-1821' in *R.I.A. Proc.*, lxxxii, c, no. 6 (1982), p. 157 (hereinafter Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change'), pp 177-8.

³⁵ See, for example, the following important studies for various parts of Ulster: Valerie Morgan, 'The Church of Ireland registers of St Patrick's, Coleraine as a source for the study of a local pre-famine population' in *Ulster Folklife*, xix (1973), pp 56-67; eadem, 'Mortality in Magherafelt, County Derry, in the early eighteenth century' in *I.H.S.*, xix, no. 74 (1974), pp 125-135; eadem, 'A case study of population change over two centuries: Blaris, Lisburn 1661-1848' in *Ir. Econ. & Soc. Hist.*, iii (1976), pp 5-16; William Macafee, 'The colonisation of the Maghera region of South Derry during the seventeenth and eighteenth centuries' in *Ulster Folklife*, xxiii (1977), pp 70-91; idem and Valerie Morgan, 'Population in Ulster, 1660-1760' in Peter Roebuck (ed.), *Plantation to partition, essays in Ulster History, in honour of J. L. McCracken* (Belfast, 1981), pp 46-63; idem and eadem, 'Mortality in Magherafelt, County Derry, in the early eighteenth century reappraised' in *I.H.S.*, xxiii (1982-3), pp 50-60; Colin Thomas, 'The city of Londonderry: demographic trends and socio-economic characteristics, 1650-1900' in Gerard O'Brien (ed.), *Derry & Londonderry, history and society* (Dublin, 1999), pp 359-78 (hereinafter cited as Thomas, 'City of Londonderry, 1650-1900'); idem, 'Family formation in a colonial city: Londonderry, 1650-1750' in *R.I.A. Proc.*, 100C, no. 2 (2000), pp 87-111 (hereinafter cited as Thomas, 'Family formation in Londonderry'); William Macafee, 'The population of County Tyrone, 1660-1991' in *Tyrone, history and society* (Dublin, 2000), pp 433-459 (hereinafter cited as Macafee, 'The population of County Tyrone, 1600-1991').

³⁶ Michael Drake, 'The Irish demographic crisis of 1740-41' in *Hist. Studies*, vi (1968), pp 101-24; Dickson, 'Gap in famines', pp 96-111; Brian Gurrin, *A century of struggle in Delgany and Kilcoole, an exploration of the social implications of population change in north-east Wicklow, 1666-1779* (Dublin, 2000). See also, William Smyth, 'Society and settlement in seventeenth century Ireland: the evidence of the '1659 Census'', in William Smyth and Kevin Whelan (eds.), *Common ground: essays on the historical geography of Ireland* (Cork, 1988), pp 55-83 (hereinafter cited as Smyth, 'Society and settlement in seventeenth century Ireland'); idem, 'Property, patronage and population - reconstructing the human geography of mid-seventeenth century County Tipperary', in William Nolan (ed.) *Tipperary history and society* (Dublin, 1985), pp 104-38, both of which use various taxation sources, but not parish register data.

³⁷ 'Introduction: local population studies', in Michael Drake (ed.), *Population studies from parish registers, a selection of readings from Local Population Studies* (Derbyshire, 1982), p. xxvi, n. 2 (hereinafter cited as Drake, 'Introduction'; book cited as Drake (ed.), *Population studies from parish registers*).

³⁸ D. V. Glass, *Numbering the people, the eighteenth-century population controversy and the development of census and vital statistics in Britain* (Farnborough, 1973), pp 11-13 (hereinafter cited as Glass, *Numbering the people*).

³⁹ In the mid-eighteenth century a public debate had commenced in England concerning the population level of that country. A particular focus of this debate centred on whether the population of England and Wales had increased during the seven decades following the Glorious Revolution. Although much of the heat was taken out of the debate with the completion of a successful census of Britain in 1801, it is clear that the debate proved to be so long lasting was principally because English population statistics were quite inadequate, see Glass, *Numbering the people*, pp 11-40.

⁴⁰ E. A. Wrigley and R.S. Schofield, *The population history of England, 1541-1871, a reconstruction* (1997 repr. of 1989 ed., Cambridge, 1989) (hereinafter cited as Wrigley and

Schofield, *Pop. hist. of England, 1541-1871*); E. A. Wrigley, R. S. Davies, J.E. Oeppen and R.S. Schofield, *English population history from family reconstitution, 1580-1837* (Cambridge, 1997).

⁴¹ Cullen, *Emergence of modern Ireland*, p. 210.

⁴² D. V. Glass and P. A. Taylor, *Population and emigration* (Dublin, 1976), pp 8-11.

⁴³ Brian Gurrin, 'No country for young men, the 1813-5 census returns for County Meath' in *Ríocht na Midhe*, xvii (2006), pp 173-7 (hereinafter cited as Gurrin, 'No country for young men').

⁴⁴ William Shaw Mason, *A statistical account or parochial survey of Ireland* (3 vols, Dublin, 1814-9), iii, pp xxii-xlv (hereinafter cited as Mason, *Parochial survey of Ire.*). Some parish-specific figures were also included with the individual parish surveys.

⁴⁵ Mason, *Parochial survey of Ire.*, ii, p. 40; iii, p. xlv.

⁴⁶ Mason, *Parochial survey of Ire.*, iii, pp xli (note), xlv.

⁴⁷ A collection of letters to addressed to W. William Shaw Mason, relating to his Statistical Survey of Ireland, 1813, 1814, 1815 (T.C.D., MS 961). See particularly the letters from Thomas Newenham to William Shaw Mason (ff 12-12v) where he criticises the return for Limerick, Louth, Galway and Cork and from John Newport (ff 35-35v) where he notes that 'the deficiency of the county returns [County Waterford] and those of Wicklow County are very striking'. Newport's suggestion that Wicklow returns were deficient may indicate that that Newcastle barony was actually enumerated but that the figures were un-published or it may be that he was commenting on the county total, minus Newcastle, which would result in a very low population.

⁴⁸ Assuming arithmetic integrity, a census can only overestimate a population if the enumerator falsifies the return, or if he inadvertently counts people more than once. A population is underestimated by failing to count all the subjects. Underestimation is always the more likely.

⁴⁹ There is limited evidence in this regard from returns from other parts of the country. The only surviving manuscript return, for Longford barony in County Galway, was also rejected as containing an 'incorrectness' (Mason, *Parochial survey of Ire.*, iii, p. xliii). In the original return, however, while all of the data (number of houses and families and so on) is available on a parish level, the only townland figures are for the total number of inhabitants, and it seems probable that the omission of specific townland data may have been the reason for the rejection of the County Galway figures. The 1813-5 census figures for Galway town are 18,662 (Mason, *Parochial survey*, iii, p.xliii). The 1821 census, however, reported a population of 27,188 (*Abstract of answers and returns, pursuant to act 55 Geo. 3, for taking an account of the population of Ireland in 1821*, H.C. 1824 (577), xxii, p. 330 (hereinafter cited as *Census Ire., 1821*)), rising to 33,648 in 1831 (*Abstract of answers and returns under the population acts Ireland: enumeration 1831*, H.C. 1833 (634), xxxix, p. 298 (hereinafter cited as *Census Ire., 1831*)). This would suggest that the 1813-5 figures grossly underestimated the population. However, it is unlikely that Mason would have known that the returns were highly deficient, unless this suspicion was communicated to him locally, which does not seem to have occurred. Also, from County Sligo, a letter from the peace clerk, J[ame]s Christian, was included with the returns sent to the Chief Secretary, noting that 'on looking over them several errors and inaccuracies appeared which I have noted in pencil at the foot of each [barony return]' (Letter from Js Christian, C. P., to Rt Honble Robt Peele, L.L., 14 August 1813 (N.A.I., OP 394/38)). Bearing these points in mind, therefore, it is likely that Mason's advocacy of some returns and his rejection of others more closely reflects the method by which the returns were structured or presented, rather than being a commentary on Mason's perception of the degree of accuracy in the returns.

⁵⁰ Gurrin, 'No country for young men', pp 186-95

⁵¹ Mason, *Parochial survey of Ire.*, iii, pp xxi note, xlviii note.

⁵² Following the failure of the 1813-5 census to report a national population return, a new census was authorised by a bill passed in June 1815, but the census was not held until 1821 (*Bill for taking account of population of Ireland*, H.C. 1814-15 (350), i, 485).

⁵³ Joseph Lee, 'On the accuracy of pre-Famine Irish censuses' in J. M. Goldstrom and L. A. Clarkson (ed.), *Irish population, economy, and society* (Oxford, 1981), pp 37-56 (hereinafter Lee, 'Accuracy of pre-Famine Irish censuses').

⁵⁴ *Census Ire., 1821*, p. xix.

⁵⁵ Margaret Crawford, *Counting the people: a survey of the Irish censuses, 1813-1911* (Dublin, 2003), pp 13-4 (hereinafter cited as Crawford, *Counting the people*); K. H. Connell, *The population of Ireland, 1750-1845* (Oxford, 1950), p. 2 (hereinafter cited as Connell, *Population of Ireland*); J.K.L., *Letters on the state of Ireland* (Dublin, 1825), p. 96. In the introduction to the

census, Mason notes that, 'among the difficulties anticipated by the Enumerators, that of a determined hostility to their proceedings, which shewed itself openly in some [unfortunately unspecified] districts, was the most formidable, as it affected the very basis of the Inquiry' but that when opposition was encountered 'letters on the subject, transmitted to the resident clergymen [of all denominations] of the district, immediately led to a satisfactory explanation, by which not only the obstacle was removed, but a friendly sentiment substituted in its place' (*Census Ire., 1821*, pp xii-xiii).

⁵⁶ Lee, 'Accuracy of pre-Famine Irish censuses', pp 37-56.

⁵⁷ Connell, *Population of Ireland*, p. 5; Lee, 'Accuracy of pre-Famine Irish censuses' p. 46.

⁵⁸ *Census Ire., 1821*. An abstract of the figures had earlier been presented, *Abstract of population of Ireland*, H.C. 1822, (36), xiv, 737.

⁵⁹ *Census Ire., 1821*, p. xiii. The 1813 data was also compiled on a townland basis and, aside from the Longford barony (County Galway) returns, townland data also survives for Ballintoy (Antrim) (Mason, *Parochial survey*, i, pp 168-9), Drummannon (Waterford) (*ibid.*, pp 236-8), Dungiven (Derry) (*ibid.*, p. 347), Fiddown (Kilkenny) (*ibid.*, pp 374-5), Fuerty (Roscommon) (*ibid.*, 414-5), Killesk (Wexford) (*ibid.*, p. 476, note that this was conducted by the parish minister rather than the barony constable and thus seems not to be compiled under the 1812 act), Kilmanaheen union (Clare) (*ibid.*, pp 511-4), Lea (Queen's) (*ibid.* p. 545), Macroom (Cork) (*ibid.*, pp 573-4), Maghera (Derry) (*ibid.*, p. 618), Carrigaline (Cork) (*ibid.*, ii, pp 140-1), Devenish (Fermanagh) (*ibid.*, pp 200-6), Killuken (Cork) (*ibid.*, 331), Ardclinis (Antrim) (*ibid.* iii, pp 39-43), Holywood (Down) (*ibid.*, 218), Syddan (Meath) (*ibid.*), pp 394-5 and Tintern (Wexford) (*ibid.* pp 496-7, this may not have been compiled under the 1812 act).

⁶⁰ *Report of the Commissioners appointed to take the census of Ireland for the year 1841*, H.C. 1843 [504], xxiv, p. viii (hereinafter cited as *Census Ire., 1841*).

⁶¹ *Census Ire., 1841*, p. viii, 'it was taken in different places at different times, extending over a considerable period. It is understood, too, that the enumerators considered that they would be paid – and in many cases were paid – in proportion to the numbers they enumerated, the obvious tendency of which would be to augment the total numbers. These and other considerations induce us to believe that the numbers returned in 1831 were greater than the real population, or at all events that any error was rather one of excess than of deficit. With respect to the Census of 1821, it is to be recollected that it was the first successful occasion of enumerating the people in Ireland, and that it was probably effected with a less perfect machinery. We may perhaps therefore assume that it was rather below than above the truth'. For the 1841 census Larcom expressed the hope that 'it is not far from the truth' (*ibid.*) Larcom did also note that 'We cannot take upon ourselves to pronounce with certainty, the extent to which any of these [1821 and 1831 censuses] may vary from the truth' (*ibid.*).

⁶² Lee, 'Accuracy of pre-Famine Irish censuses', p. 37, *Census Ire., 1841*, p. viii. In *Return of the population of the several counties in Ireland, as enumerated in 1831*, H.C. 1833, (254), xxxix, 1 the national population is recorded at 7,784,536.

⁶³ Phelim Boyle and Cormac Ó Gráda, 'Fertility trends, excess mortality, and the Great Irish Famine' in *Demography*, xxiii, no. 4, p. 556 (hereinafter cited as Boyle and Ó Gráda, 'Fertility trends').

⁶⁴ Lee, 'Accuracy of pre-Famine Irish censuses', p. 53; Boyle and Ó Gráda, 'Fertility trends', p. 556.

⁶⁵ Michael O'Flanagan (ed.), *Letters containing information relative to the antiquities of the County of Wicklow, collected during the progress of the Ordnance Survey in 1838* (Bray, 1928), p. 8 (hereinafter cited as O'Flanagan (ed.), *O.S. letters, Wicklow*).

⁶⁶ *Census Ire., 1821*, p. 128; *Abstract of answers and returns under the population acts*, p. 116 (hereinafter cited as *Census Ire., 1831*); *Census Ire., 1841*, p. 140. Between the 1831 and 1841 censuses the parish of Calary was created. This new parish included the townland of Powerscourt Paddock, from Powerscourt, and the townlands of Ballinteskinn and Ballyremon Commons, from Kilmacanoge. The 1841 population figures for these three parishes have been added to the respective Powerscourt and Kilmacanoge 1841 figures to maintain consistency between the census data. Thus the 1841 recorded figure of 3,070 has been increased by 89, the population of Powerscourt Paddock in 1841 and the figure for Kilmacanoge, 2,336, has been increased by 127, the combined population of the townlands of Ballinteskinn and Ballyremon Commons. 1841 townland figures are available from *Addenda to the census of Ireland for the year 1841; showing*

the number of houses, families, and persons in the several townlands and towns of Ireland, County of Wicklow (Dublin, 1844), p. 10 (hereinafter, *Census Ire., 1841, addenda, Wicklow*).

⁶⁷ Lee, 'Accuracy of pre-Famine Irish censuses', p. 53; Crawford, *Counting the people*, p. 19. In the 1841 census report, however, the date is given as 7 June 1841 (*Census Ire., 1841*, p. vi).

⁶⁸ Lee, 'Accuracy of pre-Famine Irish censuses'.

⁶⁹ 6 and 7 Wm IV, c. 84, s. 51, dated 17 August 1836. Additionally 3 and 4 Vict. C. 109 allowed for the transfer of territory from counties of cities into the counties at large (territory was transferred from Drogheda to Counties Louth and Meath under this act). 6 and 7 Wm IV, c. 116, s. 175 allowed for grand juries to divide baronies. See *Census Ire., 1841*, p. vi.

⁷⁰ *Census Ire., 1841*, p. 5.

⁷¹ *Census Ire., 1841*, pp 30-1, 5 and 6 Vict., c. 96. For map of County Dublin prior to the reallocation of barony territories see Robert Simington, *The Civil Survey A.D., 1654-1656, County of Dublin* (Dublin, 1945), p. i, map. If this is compared with the post-transfer situation (Mitchell, *A new genealogical atlas of Ireland* (6th printing, Baltimore, 1998), p. 47) the extent of the territorial changes between the 1831 and 1841 censuses becomes apparent.

⁷² *Census Ire., 1841*, p. 31. Other boundary changes impacting on Wicklow's barony level at this time was the transfer of the townland of Ladystown in Baltinglass parish from Talbotstown Upper (Co. Wicklow) to Rathvilly (Co. Carlow), although the townland remained part of Baltinglass parish.

⁷³ Leave was granted to bring in a bill to divide Ballinacor barony into two divisions in 1798, under the purposes of 36 George III, c. 25, but the first three censuses (including 1813-5) treated the area as a single barony. The division was necessitated to ease the administration of justice. It seems likely that this initial proposal to divide the barony was not successfully prosecuted (*Journals of the house of commons of the kingdom of Ireland* (3rd ed., 19 vols, Dublin, 1796-1800), xvii, pt 1 (1797), p. 258 (hereinafter cited as *Commons' jn. Ire.*)).

⁷⁴ Liam Price, *The place-names of County Wicklow* (7 vols, Dublin, 1945-67), i, pp 50, 52, 53, 54; ; v, pp 304; vii, pp 391, 400 (hereinafter cited as Price, *Place-names of County Wicklow*).

⁷⁵ Samuel Lewis, *A topographical dictionary of Ireland* (2 vols + atlas, London, 1837), ii, p. 511 (hereinafter cited as Lewis, *Topog. dict. Ire.*).

⁷⁶ Crawford, *Counting the people*, pp 16-21.

⁷⁷ *Addenda to the census of Ireland for the year 1841; showing the number of houses, families, and persons in the several townlands and towns of Ireland* (Dublin, 1844).

⁷⁸ Joel Mokyr and Cormac Ó Gráda, 'New developments in Irish population history, 1700-1850' in *Econ. Hist. Rev.*, xxxvii, no. 4 (1984), p. 476 (hereinafter cited as Mokyr and Ó Gráda, 'New developments in Irish population history'). Numerous commentators remarked on the dramatically increasing population towards the end of the eighteenth century. It is questionable whether the rate of increase was actually unprecedented, however. Dickson *et al.* estimate the national population at 4.42 million in 1791 (Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 156) and Joseph Lee has estimated the 1821 population at 7.20 million (Lee, 'Accuracy of pre-Famine Irish censuses', p. 54). This represents an annual rate of increase of 1.64 per cent between 1791 and 1821, which is an exceptionally high rate of population increase. However, Dickson *et al.* also estimate the population in 1753 at between 2.20 and 2.57 million which represents an annual rate of increase of between 1.44 and 1.85 per cent between 1753 and 1791, not significantly different from the 1791-1821 figure. Furthermore, their estimates for 1749 are between 1.95 and 2.28 million and for 1753 are between 2.20 and 2.57 million. These figures suggest an annual rate of population increase ranging from -0.65 per cent (highest figure in 1749 and lowest figure in 1753) to an impossible 7.1 per cent (lowest figure in 1749 and highest figure in 1753) with a mean rate of increase of 3.0 per cent.

⁷⁹ Mokyr and Ó Gráda, 'New developments in Irish population history', p. 476.

⁸⁰ Mokyr and Ó Gráda, 'New developments in Irish population history', p. 476.

⁸¹ The 1740s had been a very difficult decade, during which the national population probably declined. High growth rates can be expected in the immediate aftermath of a demographic crisis, but rates usually quickly return to more normal levels. An annual rate of population increase of 3.0 per cent would result in a population doubling within a quarter of a century.

⁸² Tim Dyson and Cormac Ó Gráda, 'Introduction' in Tim Dyson and Cormac Ó Gráda (ed.), *Famine demography, perspectives from the past and present* (Oxford, 2002), p. 11, point 13

(hereinafter cited as Dyson and Ó Gráda, 'Introduction'; book cited as Dyson and Ó Gráda, *Famine demography*).

⁸³ L. P. Murray, 'Hearth money rolls' in *Louth Arch. Soc. Jn.*, vii, no. 4 (1932), p. 500; *A view of the present state of Ireland ... intended for the consideration of parliament* (1780), pp 80-1.

⁸⁴ John Dubourdieu, *Statistical survey of the county of Down, with observations on the means of improvement; drawn up for the consideration, and by order of the Dublin Society* (Dublin, 1802), p. 33 (hereinafter cited as Dubourdieu, *Stat. survey of county Down*).

⁸⁵ Edward Wakefield, *An account of Ireland, statistical and political* (2 vols, London, 1812), ii, p. 751 (hereinafter cited as Wakefield, *Account of Ire.*); Charles Smith, *The ancient and present state of the County of Kerry* (reprint, Dublin, 1979, of orig. ed., Dublin, 1756), pp 252-3.

⁸⁶ Gervase Bushe, 'An essay towards ascertaining the population of Ireland' in *Transactions of the Royal Irish Academy*, iii (1790), unnumbered sheet between pp 148-9 (hereinafter cited as Bushe, 'Essay towards ascertaining the population of Ireland').

⁸⁷ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', pp 135-6.

⁸⁸ Connell, *Population of Ireland*, p. 4.

⁸⁹ See footnote 35.

⁹⁰ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change'.

⁹¹ Macafee, 'The population of County Tyrone, 1600-1991'; Thomas, 'Family formation in Londonderry', pp 87-111; Thomas, 'City of Londonderry, 1650-1900', pp 359-78.

⁹² Philip J. Greven, *Four generations: Population, land and family in colonial Andover, Massachusetts* (Cornell, 1970).

⁹³ Kenneth Lockridge, *A New England town: the first hundred years* (expanded ed., New York, 1985), p. xiv.

⁹⁴ Peter Connell, *The land and people of County Meath, 1750-1845* (Dublin, 2004), p. 59.

⁹⁵ Connell, *Land and people of Meath*, p. 18.

Part 1 – Wicklow: its land, and its people

There are many features which may influence the character of human settlement and social organisation in an area in the historical past, but two features – its physical relief and the number of people inhabiting it – are usually of primary importance. In this section (chapters one, two and three) Wicklow's demographic history during what can be termed the long eighteenth century, between the Restoration and the Act of Union, is examined. Particular emphasis is placed on examining the various developments in human landscapes in the region, and on teasing out the extent of regional population changes at this time.

Wicklow's general population history during this period was characterised by steady advances, occasionally punctuated by critical Malthusian crises, the most serious of which occurred in the late 1720s and during the 1740s. In the denominational sphere, however, things were more complex, at least during the middle decades of the eighteenth century, for which reasonably firm source material survives. While the Catholic population advanced substantially between the 1730s and the 1760s, for example, the number of Protestants in the county stagnated, and even retreated in some areas. The extent of these demographic changes and the contrasting demographic fortunes of both denominations form the subject matter of the first part of this thesis, while the implications of the changes that were occurring during this period are examined in part two.

Chapter 1 – The evolution of human landscapes in Wicklow before the nineteenth century.

During the eighteenth century Wicklow's population increased substantially, reflecting patterns that were being similarly experienced throughout the country. Just like any area, however, Wicklow's settlement patterns, agricultural practices and infrastructural orientations were strongly influenced by its geological framework. Thus, the uplands, predominantly infertile and remote, remained largely unoccupied throughout the eighteenth century, with human settlement within the county primarily confined to narrow corridors to the east, south and west of the mountains. As the eighteenth century progressed these corridors became increasingly crowded, making habitable Wicklow one of the most densely populated regions in the country.

This was particularly the case during the latter half of the eighteenth century, when very rapid population growth occurred, at a time when substantial modifications to the human landscapes of the region were also being effected. Road-building proceeded apace, particularly after the 1750s, while attempts were also made to exploit Wicklow's maritime advantages, by upgrading the paltry shipping facilities at Wicklow and Arklow. Although the area remained predominantly agricultural, it will be seen that belated industrial developments in the south and west were an important spur for much of the infrastructural change that occurred during the closing decades of the eighteenth century. New access roads, constructed across the mountains after 1760, facilitated the development of trade links between the nascent linen and flannel industries in the west of the county and the markets and economies of the wider world. In the uplands, various mining initiatives also commenced in the latter half of the eighteenth century, which further fostered infrastructural developments, and the emergence of cash-based economies. Determining the impact of human settlement patterns and human development during the seventeenth and eighteenth centuries on Wicklow's physical and human landscapes is the primary focus of this chapter.

The evolution of Wicklow's human geography

During the opening decades of the seventeenth century, large areas of Wicklow were seized by new Protestant settlers, and following the defeat of Gaelic resistance by Cromwellian forces, the remaining holdings were inevitably confiscated. Later, even more grandiose schemes had been considered. In 1654 a scheme to remove all Catholics from five Leinster counties ('the Five Counties'), including Wicklow, was proposed, but, opposed by the settlers, this was quickly seen to be impractical, and was abandoned.¹ For a land confiscation scheme to succeed a ready supply of replacement tenants was required, and since there was an insufficiency of Protestants, Catholics were required to work the land and pay rents.² An additional bonus was that, in Protestant eyes at any rate, contemporary Catholic agricultural practices, a more frugal way of life and a more restricted diet permitted Catholics to pay higher rents than their Protestant contemporaries could afford, and to tolerate higher rents for marginal lands. This chauvinistic concept was not unique to Wicklow Protestants, and was resilient.³ In the Wicklow context these attitudes are well reflected in an early eighteenth century survey of the vast Malton estate, based around Shillelagh in the south of the county.⁴ This survey considers (reputedly) each tenancy on the estate, noting for each the names of the subtenants and their family structure, and other ancillary information. Crucially, specific information is provided on each individual lease, and it is regularly noted that early leases had been granted on the proviso that only Protestant subtenants be facilitated, although this proved a forlorn hope; practicality, and financial realities, ensured that substantial numbers of Catholics remained in place by the late 1720s, because

it is to be observ'd that an Irish papist is much abler to pay rent for a farm than a protestant of equal ability with the Roman by reason that a Roman and his whole family can live upon potatoes and Buttermilk the whole year through for to make a rent which the protestant can not do. For the protestants must have Beef & Bread, and much better Cloaths than Romans. I think by the Return made of Every Roman upon every farm upon my Lord Malton's Estate I have plainly proved. That Estate is mostly

inhabited by Romans, and that they are the only persons who pay the rents.⁵

Although relatively little land remained under Catholic ownership at the time of the Restoration, that denomination, nonetheless, remained numerically pre-eminent. William Petty's Down Survey maps, constructed to record the confiscation of land in the aftermath of the Cromwellian victory, provide a first view of human and cultural landscapes in mid-seventeenth century Wicklow, although they are of limited use in this regard.⁶ Important for the purpose of this work, however, are the tantalising suggestions that that the county had suffered considerably during the wars. In the north-east, both Newcastle barony experienced a 'late depopulation', and Rathdown was 'not very well inhabited, occasioned ... by the destruccions of the ancient inhabitants during the warrs'.⁷ Further south, Wicklow town, the principal urban centre in the county, had also suffered; prior to the wars it had been a thriving urban centre and was the prime port in the county, where 'ships of foure or five hundred tunn may ride in', with 'severall ffares, also two sessions yearly and a market once a week', but these had, at least temporarily, ceased.⁸

From the Down Survey onwards, cartographic representations of County Wicklow are particularly useful for constructing a temporal view of the development of human landscapes and Petty's next involvement with the region involved the mapping of the county in his 1685 atlas, *Hiberniae delineatio*. This represented the first attempt to produce a county map, but, although this map was widely used – and often plagiarised – by subsequent cartographers, it is, like the Down Survey, of limited use as a source for the study of human settlement in the region in the seventeenth century. For *Hiberniae delineatio* Petty borrowed heavily from his confiscations' surveys, which accounts for the paucity of the coverage for areas – including Arklow, Shillelagh and Hollywood – which had not required earlier survey, for forfeiture purposes. The map is further compromised by the absence of communications routes, which do not begin to appear on maps before the eighteenth century.

It was not until the early years of the eighteenth century when the first view of Wicklow's principal communications infrastructure comes to light, on

national maps published by, among others, Charles Price and Herman Moll⁹ Published in 1714, Moll's map, the better known of the two, replicates most of the routes shown in Price's map of three years earlier, although only the principal routes were shown in both surveys (figure 8). The following decade Moll was again to the fore, publishing an atlas of twenty maps covering various parts of the country.¹⁰ The title of this atlas unambiguously states Moll's prerogative, which was to show the 'great roads and principal cross-roads ... very useful for all gentlemen', and, thus, the roads shown suggest the best passageways within the region, or more particularly, Moll's interpretation of what constituted the most suitable roads. Unquestionably, the routes shown on these maps are no more than rough representations, and one would be advised not to read too much into the orientation of the routeways shown. Nonetheless, many of the routes shown on Moll's county map can be readily identified on subsequent county surveys, including nineteenth century Ordnance Survey maps, and efforts had clearly been made to indicate the direction followed by the road, including indicating turns, kinks and corners. Some curiosities do emerge, however. In the extreme south of the county, a seven-mile link road between Tinahely and Arklow is shown, but by mid-century, a significant proportion of this route had disappeared, and the route had veered northwards, greatly increasing the distance between these two towns (figure 9). It will be seen later that the changed orientation of this route provides strong evidence of the relatively strong links between the Shillelagh region and County Wexford, rather than with the closer, but smaller, port of Arklow.



Figure 8 – County Wicklow, from Herman Moll's 1714, *A new map of Ireland*.

Notably, too, no cross-mountain routes are indicated, despite cross-mountain tracks being in use since the Bronze Age.¹¹ The belated development of some east-west tracks across the mountains will be examined later in this chapter, but those that were available at the time of Moll's map were dangerous and difficult, and often impassable outside of summertime. The principal urban settlements are also shown, and while no indication of their relative sizes is available, Wicklow, Arklow and Tinahely are presented as the main radical centres on the roads network. Moll's map was also one of the first maps to indicate the distance between the principal towns along routes, which indicates the growing importance of travel and trade at that time, as does the representation of Glendalough and Black Bull, the location of a popular inn.¹²

Peter O'Keeffe and Tom Simington have noted the presence of twenty-seven bridges, three of which were named, on the 211 miles of road shown

by Moll for Wicklow ((figure 8).¹³ O’Keeffe and Simington have, however, probably apportioned too much respect to Moll’s map, and it seems doubtful that bridges were as common a feature on Wicklow’s primary road infrastructure as Moll’s representation suggests. A detailed – and extremely accurate – survey of County Wicklow, conducted for the Grand Jury by Jacob Nevill, a half-century later (1760) presents a contrasting picture, with many of Moll’s ‘bridges’ being shown as fords by Nevill.¹⁴ In fact, only nineteen of the thirty bridges shown on Moll’s map are also indicated as bridges on Nevill’s survey (appendix 5). For the remainder, in most cases Nevill indicates the presence of a fording point rather than a bridge, but in some instances the rivers shown by Moll do not even exist (figure 9).

Fords were commonplace in the mid-eighteenth century, even on Wicklow’s principal roads, such as those linking Dublin with Baltinglass or Wicklow town, and rivers could restrict travel, particularly during the winter months, or after heavy rainfall. They could also be dangerous. When Gabriel Beranger, the acclaimed eighteenth-century artist, travelled to Glendalough in 1779 his way was obstructed at two fording points near Laragh, by torrents ‘where we found several horsemen, the river, running with such rapidity, that no one dared to cross it ... the servant insisted it could be done; he went in, crossed safely, and came back to bring us over ... when we were in the middle, our horse, frightened by the noise and waves of the torrent, refused to go on ... we gave him the whip, but notwithstanding he kept us some minutes in the greatest anxiety’.¹⁵

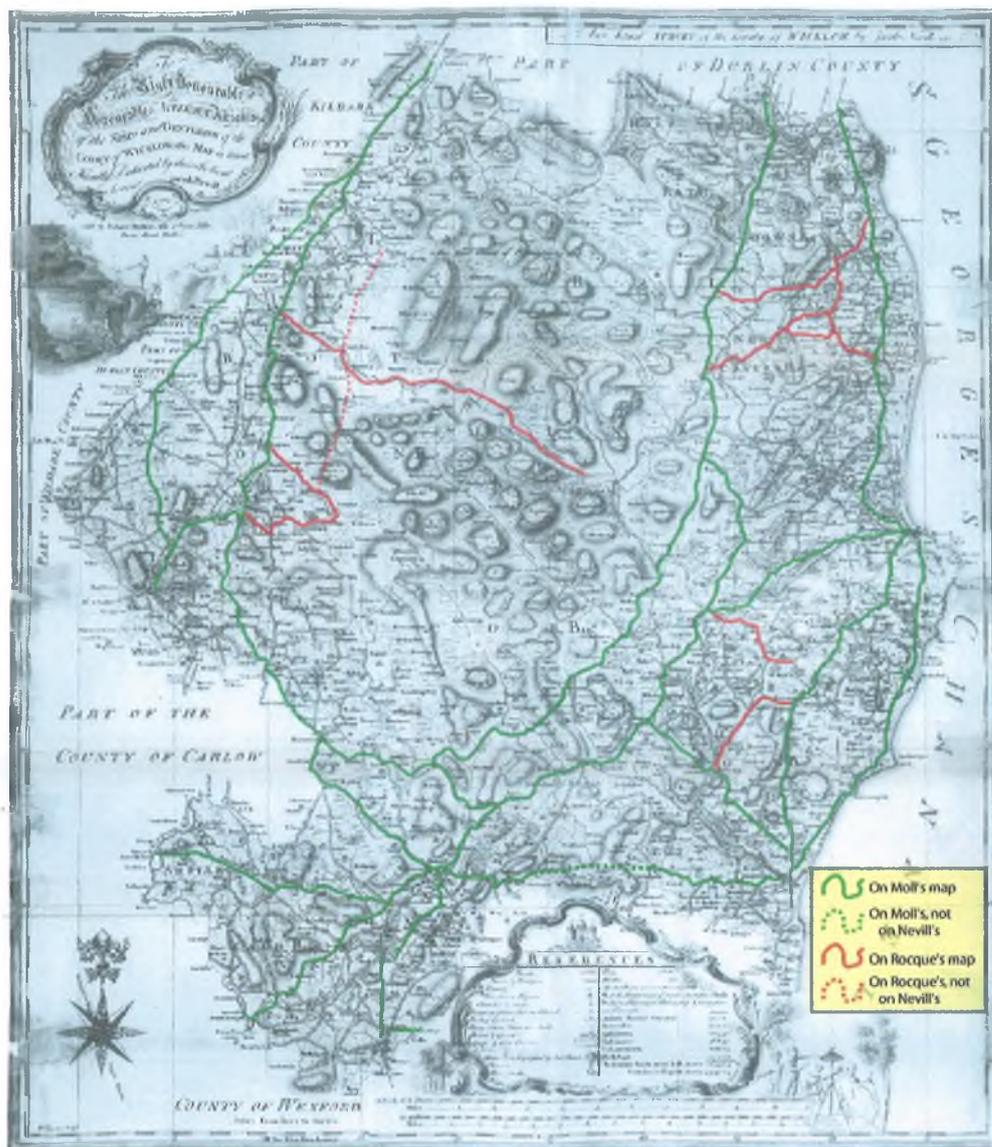


Figure 9 – Jacob Nevill’s *An actual survey of the County of Wicklow*, with routes shown on Moll’s *Map of Ireland* and Rocque’s *Map of the Kingdom of Ireland*.

Note: All of the routes shown by Moll are replicated on Rocque’s *Map*.

Subsequent cartographic presentations, before Nevill’s 1760 survey, provide little further evidence of infrastructural developments, as most were plagiarised presentations of earlier efforts.¹⁶ Even John Rocque’s map of Ireland of 1759 relied heavily on Moll’s map, and repeated many of the errors made by Moll decades previously (figure 9).¹⁷ Nevill’s survey was different, however (figure 9), and was a milestone in the charting of the county. It was scrupulously compiled

and is an extremely useful source for examining the human landscape within Wicklow in the middle years of the eighteenth century. Commissioned by the county's grand jury, and presenting the first detailed, and original, cartographic survey of the county in more than a century, Nevill's map, a remarkably detailed and accurate undertaking, projects an air of calm in an evidently settled society. Unlike on Moll's chart, the barony boundaries are accurately plotted,¹⁸ and the principal roads and rivers are shown. Urban settlements also appear, and the principal towns can be identified. Wicklow and Arklow were unambiguously the largest towns in 1760, although other urban areas, including Rathdrum, in the uplands, Baltinglass in the west and Carnew in the south must also have been important regional centres. Principal buildings are also shown, including parish churches, large estate houses, mills, Catholic chapels and, occasionally, schools. Dotted throughout the countryside were the great houses of Wicklow's landholders, including Powerscourt and Kilruddery, the two largest houses in the county, in the north east, Shelton Abbey, the seat of the earl of Wicklow, Malton House, on the huge Fitzwilliam estate in the south of the county, and Russborough House, south of Blessington.

Crucially, too, Nevill's map provides unique evidence of contemporary industrial and agricultural practices in Wicklow in the middle of the eighteenth century, and the locations of fairs and markets are also shown. Determining conventional agricultural practices in early-modern Ireland can be challenging, but conveniently Nevill provides, perhaps uniquely for any mid-eighteenth century county survey, extensive evidence on regional agriculture, by distinguishing between land under 'grass' and land under 'corn'. It is, of course, doubtful that the agricultural distinctions shown on his *Map* are the product of a thorough survey, but they are likely, nonetheless, to represent, within tolerable limits of accuracy.

The north eastern corner of the county was the breadbasket of the county, with extensive acreage under various grain crops, including wheat, in Bray, Kilmacanoge, east Powerscourt, Kilcoole, east Delgany, Newcastle and along the coast to Wicklow town. It is notable that when attempts were being made during the 1770s to encourage the spread of tillage through the introduction of bounties, this area was disqualified from the scheme.¹⁹ South of Wicklow town, a more

mixed agricultural balance is evident, with roughly comparable acreages under grass and grains in the barony of Arklow. The principal grain crops were wheat and oats, which provided foodstuffs for humans and animals, and barley, which provided a raw material necessary for brewing.²⁰ By the middle of the eighteenth century Wicklow town, 'long famous for the best malt liquor', provided a convenient market for locally grown grains.²¹ There was a long-term stability to this agricultural practice, too, as later, when more unambiguous data becomes available from nineteenth century parliamentary inquiries, this grain and grass balance along the east coast, with the north-east favouring the former, and grass being relatively more popular in the south-east, had been maintained.²²

Elsewhere, typical agricultural practices are further confirmed with the mountainous regions, including virtually all but the eastern margins of Ballinacor, presented as being virtually devoid of both habitation and human exploitation. With the exception of some field patterns in Clone in north Powerscourt parish, in Addown [Athdown] in Kilbride (Talbotstown Lower barony) parish and to the east of Glendalough, in Derrylossary parish, the upland regions appear to have contributed little to the county's rural economy at this time.²³ The cultivation of rye on the mountain slopes, around the elevated village of Roundwood, effectively represented the western limit of grain growing to the east of the mountains, although booleying and transhumance permitted the exploitation of marginal lands in the mountains. To the west and south of the mountains, although grains remained important, grass-based agriculture was considerably more important than in the coastal strip. In the Talbotstown baronies, Nevill shows roughly comparable acreages devoted to grain and grass although, since much of this grain was grown at altitude, it is likely to have been primarily oats and rye, rather than the wheat which was predominant in the east. The heavy clay soils of Shillelagh were even less suited to arable agriculture, and there pasturage was considerably more popular. Notably, too, even after more than a century of sustained exploitation of the ancient woodlands, there remained considerable acreage under timber. Sheep and cattle were reared in both of regions, as were saddle horses in Talbotstown.²⁴

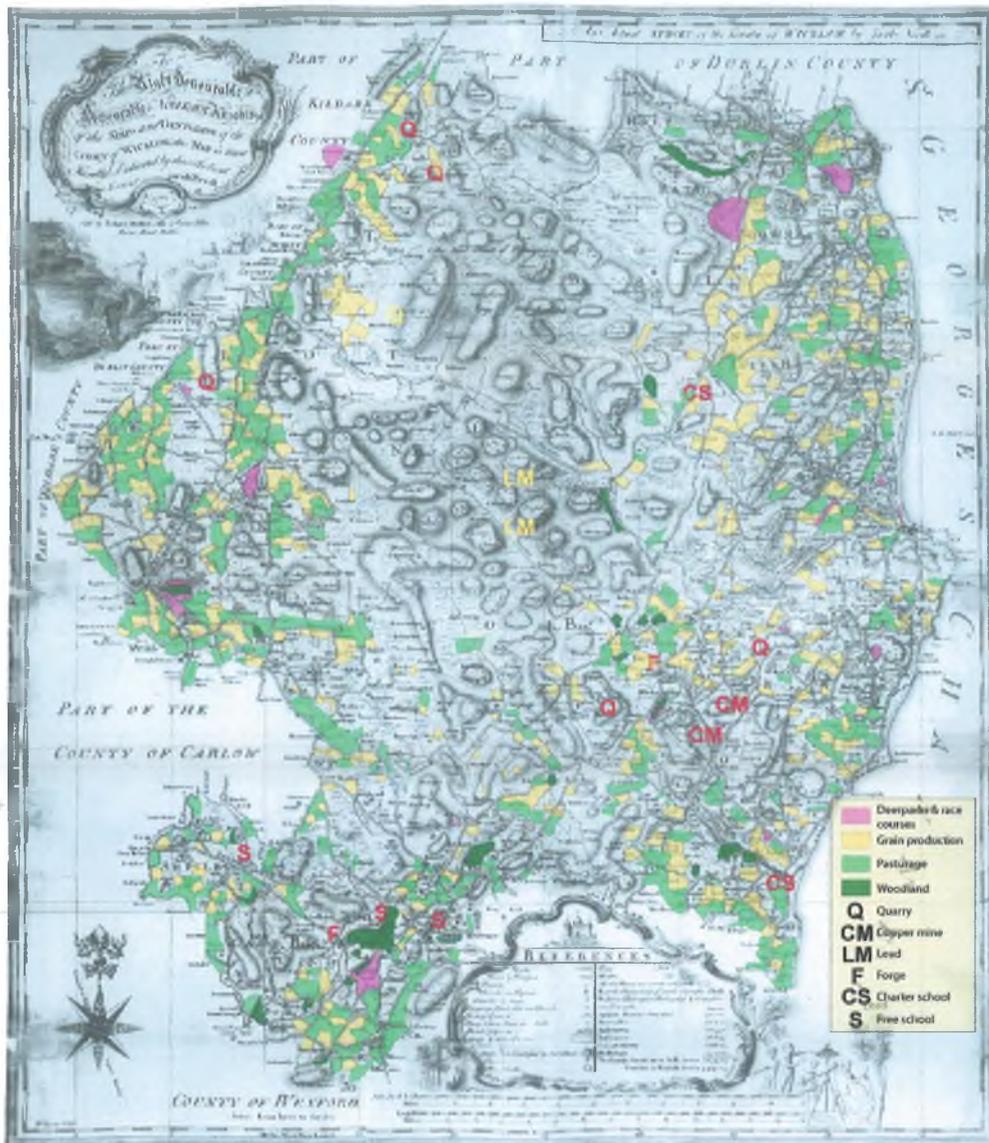


Figure 10 – Primary and secondary industry in Wicklow, c. 1760. Arable (grain), pastoral (grass) and forest lands are shown, as are estate deerparks and race courses. Industrial undertakings are also highlighted.

Note: Red text shows industries noted by Nevill; yellow text shows industries which post-dated 1760. Deerparks at Blessington and Ballybeg identified from N.L.I., MS 22,017, f. 17 of survey; Race course at Wicklow from Topog. survey of Wicklow, c. 1740 (Armagh Pub. Lib., MS KI II 14, survey 2, f. 2). If this map is compared with figure 17 (showing land quality), the link between agricultural practice and land value clearly emerges.

Figure 10 shows the grain and grass distinctions shown on Nevill’s map. If Nevill’s presentation of agricultural practice is considered in the light of varying regional land quality and productive capacity, it becomes clearly evident that

agricultural practices were strongly influenced by land quality. Figure 17 provides an indication of land-quality in Wicklow, based on Richard Griffith's *General valuation*, which was undertaken almost a century later. Comparing the data from the two surveys clearly shows that tillage was concentrated in regions where land values were highest and pasturage was prevalent where the productive capacity of the land was lower. Distinctive agricultural regions are clearly evident from both surveys, and, fortuitously, agricultural practices can be conveniently characterised within the barony-based physical regions that were identified in the introduction (see table 3).

Table 3 – Predominant agricultural practices in Wicklow in 1760, by barony.

Region/ Barony of ...	Land quality	Predominant agricultural practices in 1760s	Mean valuation of 1,000 acres (£)
half Rathdown	Variable. Well drained, sandy soils along the east coast are among the most fertile in the county, although tracts in the west are infertile uplands.	Mixed agricultural practices, but arable, grain growing, predominant.	434
Newcastle	Very fertile, well drained soils in the east, although western fringes are mountainous	Grains predominant.	614
Arklow	Generally fertile, little uplands.	Mixed agriculture, comparable acreage under grain and grass.	677
Ballinacor	Predominantly infertile uplands	Little permanent agriculture in mountains. Rye and oats in eastern parts. Cattle and sheep in the marginal fringes and some transhumance in summer.	195
Talbotstown	Reasonably fertile in west. Eastern parts infertile uplands	Mixed agriculture, but greater acreage under grass.	360
Shillelagh	Land quality typically poor.	Mixed agricultural, but primarily grass	439

Source: land valuation determined from Griffith's *General valuation of Wicklow* (unions of Baltinglass, Naas, Rathdown, Rathdrum, Shillelagh, 1852-4) (see figure 17).

Agricultural regions could, of course, be considerably refined below the barony level. In the north-east, for instance, the eastern parts of half-Rathdown and Newcastle contain some of the most fertile lands in the county, but western stretches of both of these baronies were infertile and unoccupied, which would justify their inclusion with the marginal lands in eastern Ballinacor. However, since the barony was an important administrative boundary throughout the seventeenth and eighteenth centuries, substantial advantages accrue from the creation of agricultural regions within the barony hierarchy. Not least, it will be seen in chapter two that a considerable body of the surviving eighteenth-century source material for population estimation is only available to barony level. Furthermore, although agricultural regions could be created which are not coincident with barony boundaries, nonetheless agricultural practices were sufficiently homogeneous in the most densely populated parts of the various baronies to justify barony based agricultural regions. The broad agricultural practices within the various baronies (agricultural regions) are briefly summarised in table 3.

Another survey, near-contemporary with Nevill's, but conducted for the Physico Historical Society, confirms the broad regional agricultural practices outlined in the map and provides additional, but brief, evidence on the state of industry and agriculture during mid-century. The lowlands were, in the 1740s, 'exceedingly rich & fertile & supply the mark[et] of Dublin with abundance of corn & cattle'.²⁵ During the summer months the peripheral areas, on the margins of the uplands, were of use for fattening sheep and cattle, but most 'yield little proffitt, being over-run with heath & bog'.²⁶ Further to the east, in the lower lying coastal regions arable farming was more commonly practiced. Grain growing was undertaken in the most fertile and sheltered areas, and on the lea side of hills. Wheat, the most profitable crop, was grown in the low lying, fertile lands, and oats and rye were prevalent on marginal, less fertile grounds, and on the sides of hills. 'The latter [rye] is ye bread of the common people'.²⁷

These regional agricultural distinctions persisted, too. In 1784, William Wilson occasionally commented on agricultural practices within the county, noting that the land to the north of the Glen of the Downs, was 'a distant landscape

of inclosures ... to the sea' and was 'chiefly under corn', while the slopes of the Glenmalure valley, 'rude and uncultivated' were of no practicable use, except for fattening cattle.²⁸ Two decades later, the Dublin Society and Farming Society surveys of the county also confirm the broad distinctions between arable and pastoral Wicklow, with wheat predominating along the eastern coastal strip, and pastoral practices being prevalent elsewhere. At this time the fertile soils in the north-east ensured 'very considerable' harvests, which 'generally brings the top price of Dublin market'.

Nevill also presents a first glimpse of the denominational landscapes in the county. Protestantism, monolithic in earlier times, had become more diverse, as evidenced by the presence of Quaker meeting houses at Redcross in east Wicklow and near Blessington in the west of the county. Another meeting house, not shown by Nevill, had been constructed at Wicklow town in 1720, and a Quakers' burying place was also located at Ballykean, near Redcross.²⁹ However, these sporadic dissenting Protestant communities were likely to have been very small, and the meeting houses may have been private houses rather than dedicated buildings.³⁰ In 1861, when reliable religious figures were first reported by the statutory census, less than sixty Quakers were reported to be living in the county. Furthermore, in 1861, 93 per cent of Protestants subscribed to the doctrinal authority of the Established Church, while Methodists and Presbyterians, the second and third largest Protestant denominations respectively, and a variety of micro-denominations, accounted for only 6 per cent of total Protestant numbers. The fifty-eight Quakers recorded in 1861 comprised only 0.4 per cent of Protestants, and an insignificant proportion of the total county population.³¹ While admittedly small, these numbers for dissenting Protestants represented a marked improvement on the situation three decades previously, when the education inquiry reported a total of 274 dissenters of all denominations, comprising only 1 per cent of the reported population.³²

Further evidence, albeit sporadic, is provided by the 1766 religious census. In the surviving material for the county, only two parishes record the presence of non-Established Church Protestants, although since distinguishing between Protestant denominations was not a purpose of the survey, the figures are

probably imprecise. Nonetheless, in these two parishes, the union of Wicklow and Dunganstown, only four of 255³³ and three of eighty-three Protestant families respectively are noted as being dissenting, all of which were recorded as Quakers.³⁴ Both of these parishes correspond with the general location of Quakers facilities on Nevill's map.

Schools also attracted Nevill's attention. By 1760 two charter schools had been established in County Wicklow, at Arklow and Templetown (Roundwood, or Togher), and both are shown on the map. Established under the authority of 'The Incorporated Society in Dublin for Promoting English Protestant Schools in Ireland',³⁵ the Templetown school was among the earliest in the country to open – in 1737 – and to close – in 1776.³⁶ The school at Arklow, which included twenty acres of arable land and one acre of bog, opened a decade later, in 1748, and lasted until the second decade of the nineteenth century.³⁷ In the south of the county, the vast Rockingham estate had, for generations, been proactive in encouraging education and Nevill showed three 'free schools', at Coolroe, Coolattin and Killinure.³⁸ These three schools were to be self-supporting, so each was supplied with about ten acres of land to provide revenues for their maintenance, and requisite provisions.³⁹ The date of establishment of the Rockingham schools is unknown, but the Killinure and Coolroe facilities had both been operating in 1728, when the estate was surveyed, as was another school at Ballinglen, which may have closed by 1760.⁴⁰ The Physico Historical Society survey also notes a 'publick school' at Wicklow town and 'an English school, & lands sett apart for it' at Carysfort, neither of which were shown by Nevill.⁴¹

These schools aimed to provide the children with both a practical education and religious instruction; the Charter Schools system, the brainchild of Archbishop Boulter, aimed grandiosely to convince Catholics of their doctrinal errors, but also to instruct the children in 'husbandry, housewifery, trades, manufactures, etc., so that they would be brought up, not only in virtue, but also in labour and industry'.⁴² All were small, however (the Templetown school had accommodation for 'the education and support of twenty poor popish children in the Protestant religion'⁴³), and were never likely to have met their stated aims. Among the private schools, too, the sponsors typically aimed to further their

priorities by determining the curriculum. In Shillelagh, for example, the Rockingham estate had sponsored the development of linen production, at least since the 1720s, and so, the school curriculum in Ballinglen included educating girls in spinning, although interest in the exercise was reported as lamentably low – ‘The mistress hath been there these three months and not one Child hath been Sent to be Instructed as was expected’.⁴⁴

Of course, these seven schools did not represent the entirety of Wicklow’s educational services. Many parishes, as they were statutory obliged to do since Tudor times,⁴⁵ provided money to support a school and schoolmaster. Delgany parish was employing a schoolmaster soon after the re-establishment of the parochial union, with payments first recorded to the schoolmaster in the parish’s accounts in 1666, and in 1713 Thomas Friend was allocated money in the parish cess, for ‘keeping an English school for ... teaching & instructing five poor children of the said parish yearly gratis such as ye churchwardens from time to time shall name & appoint’.⁴⁶ A few years after Delgany’s first foray into the educational sphere, Charles Whittingham, appointed vicar of Wicklow parish in 1688, was instructed to establish a school house for ‘teaching or instructing boys ... in the English language’,⁴⁷ and in the eighteenth century Bray parish’s schoolhouse, located near the pound, was repaired in 1736-7, and a schoolmaster was located in Rathdrum parish from 1743.⁴⁸ Catholics, too, had their own educational facilities, despite the legislation banning this practice. In 1731, an enquiry into popery, reported thirteen Popish school throughout the county, including one in Bray, Ennisboyne, Rathdrum, Baltinglass and Kiltegan, where Latin was taught, and two in Delgany, Hollywood, Newcastle and Wicklow.⁴⁹ The teaching of Latin at Kiltegan may imply preliminary training for the priesthood.⁵⁰

Despite the reported reluctance among tenants on the Malton estate to have their daughters trained in spinning in the 1720s, the Physico Historical Society inquiry was reporting the presence of a linen industry, run by ‘a colony of industrious Protestants’ in the Carnew area two decades later.⁵¹ In the 1740s linen was being commonly propounded as a panacea for poverty – ‘A barrel of flax seed, a wheel and a loom, have often rais’d an industrious family’ – and the linen industry was reputedly making strides throughout the county, aided by the

marginal quality of much of the soils.⁵² 'Flax do's well & spinning wheels & looms are in motion'.⁵³ Landlords in diverse areas, including, at Arklow, and at Dunlavin and Kiltegan in the west of the county were settling linen-workers, and fostering the industry during the middle of the eighteenth century,⁵⁴ and at Baltinglass, Nevill's representation of a substantial bleach yard provides further confirmation of the importance of the industry. It is notable that attempts to foster cloth and linen manufactures appear to have been broadly centred on the southern and western parts of the county, where the soils were poorest, and avoided the eastern regions, where mixed arable farming predominated.

These various attempts to establish a substantial domestic industry in the region, although briefly successful, ultimately failed. Evidence for the development of the industry is sparse, but it appears to have collapsed by the beginning of the nineteenth century, when it failed to merit inclusion in either the Dublin Society's (Robert Fraser) *Statistical survey of County Wicklow*, of 1801, or the 1812 Farming Society's (Thomas Radcliff) *Report on the agriculture and livestock of County Wicklow*.⁵⁵ Edward Wakefield was more explicit, claiming, also in 1812, that 'it [the linen industry] may be said in some measure to extend to every part of Ireland, except Wicklow and Wexford, where it is almost unknown'.⁵⁶ Fraser's *Statistical survey* confirms the belated demise of this previously important industry at Kiltegan, noting that linen, flannel and frieze manufactures, 'until the late disturbances [1798 Rebellion, and its aftermath], was very considerable', and by 1809 only thirty-six acres in Counties Kildare and Wicklow were under flax.⁵⁷ Although Fraser notes that linen manufacture was still undertaken for domestic use, the industry had failed to develop as a staple.⁵⁸

The county was also endowed with alternative, secondary, economic opportunities. Rolf Loeber has argued that the new settlers were prominent in promoting the industrial development of the county, through the exploitation of the varied, and rich, natural resources that were available,⁵⁹ and, in fact, Wicklow's economic development was closely tied in with the demographic and denominational machinations occurring within the county during the seventeenth and eighteenth centuries. Industrial development was unbalanced, being broadly limited to the inhabited regions south of Wicklow town, in the east, and south of

Dunlavin, in the west. Timber, which Wicklow had in abundance, was one of first industries to attract exploitation. In the far south, the ancient woodlands around Shillelagh, heavily worked since Tudor times, had been considerably reduced in size by the 1660s, but there still remained 'a large quantity of great timber there'.⁶⁰ Demand for timber had grown under the Tudors,⁶¹ and the increased market-value of wood encouraged settlers to cast their eyes on Irish forests, leaving Wicklow, by the 1620s, as the only remaining Leinster county with extensive tree coverage.⁶²

By 1654 at the latest, a forestry service had been established in the county and a woodreeve, four assistants and a clerk had been employed to manage the exploitation of the resource.⁶³ Some years later, in 1661, on foot of concerns that the country's timber was being squandered, a Ranger-General for Irish woodlands was appointed to ensure the preservation of the resource and the stability of supply,⁶⁴ and the earl of Strafford, who was reducing his woods in Shillelagh at the time, quickly fell foul of this new regime.⁶⁵ Nonetheless, the long-term development of the industry was not grievously impinged upon, aided by the cost of processing Irish timber, which was considerably lower than comparable costs in England.⁶⁶ By 1668, woodland in the remote upland townland of Rosahane, in Ballinacor parish, was being heavily worked, perhaps an indication that the more accessible, low-lying, forests had been, by then, fully exploited.⁶⁷

The perennially high demand for timber should have promoted links between Wicklow and the wider world, but physical geography and the difficulties associated with contemporary land transport conspired to hinder these opportunities. The development of ports at Wicklow and Arklow, convenient conduits for the English market, could have been anticipated as a consequence of the growth of the timber industry, but this did not result. Shipping timber overland from the woodlands in Shillelagh or southern Ballinacor, to either of these ports was costly, and shallow sandbanks lying off the coast restricted the size of the shipping which could conveniently, and safely, access both ports (figure 8), and in the 1670s neither port could accommodate ships of more than 30 tons.⁶⁸ River transport provided a cheaper and easier alternative, and initially the Derry River, a tributary of the River Slaney, facilitated the exporting of timber from the region

through the more distant port of Wexford – which could handle ships twice as large,⁶⁹ but this had become impractical by 1671.⁷⁰ By that stage transportation of the timber overland to Enniscorthy, from where it could be ferried down the Slaney to Wexford, was being proposed. River-transport, faster, more convenient, and cheaper than shipping overland, was a vital part of the communications system of the country a time when the road system was poorly developed.⁷¹ Thus, transporting the timber ten miles by road, from Carnew to Enniscorthy would cost 10 shillings per ton, but the remaining ten miles, from Enniscorthy to Wexford, downriver, only added an additional 2 shillings.⁷² River transport, therefore, was five times more profitable for the exporter than was transport by road, at least in the direction of the flow. It is notable, too, that between the 1710s (Moll) and the 1760s (Nevill) a road linking Shillelagh and Arklow had been discontinued, which would not have been the case if that route had been commonly used to transport raw materials to markets.

Extensive hardwood cover also facilitated the development of heavier industries. Shillelagh's sturdy oak had encouraged the early development of iron smelting in the south of the county, a practice which had migrated northwards from Wexford during the early years of the seventeenth century.⁷³ By 1635, a forge was located at Carnew and forges were also constructed on the Derry River, near the present day village of Shillelagh, which owes its origin to that industry.⁷⁴ The location of heavy smelting facilities in the Wicklow hills presents a fascinating hint of the economic priorities of early-modern south Wicklow, and the links that had been constructed between the area and a wider economy since the establishment of the county some few decades previously. The raw material for the industry was not mined extensively in Ireland, so the ore was imported into the region from England or Wales, where it was processed, for re-export.⁷⁵ Because of this, Loeber has speculated that the timber and iron industries were probably tightly coupled, with the ships which transported the ore across the Irish Sea from Wales returning laden with Wicklow's timbers.⁷⁶ Such linkages between a rural backwater in a relatively inaccessible part of Ireland and wider national and international economies could only have come about through the confluence of geographic advantage, the ready availability of necessary raw materials and the

influence of powerful sectional interests (in this case, Protestant). Furthermore, the iron and timber industries melded this part of south Wicklow, which a generation previous to the establishment of the forge at Carnew had been wild, dangerous and inaccessible, firmly into a wider economic sphere, which had previously long been alien to it. This could not, and indeed, would not, have occurred at that time without the requisite denominational and demographic revolutions which were impinging on the region from the early decades of the seventeenth century.⁷⁷ Nevill's depiction of a forge at Shillelagh, a century later, one of only two shown on his map – the other forge was at Ballinaclash, near Rathdrum – indicates the resilient importance of the iron industry in south Wicklow. Earlier, in 1692, the forge had fallen into disrepair, possibly as a consequence of the political difficulties at that time, but it had been reconstructed.⁷⁸ It also indicates the survival of timber resources in the region, more than two centuries after their exploitation by colonists began in earnest, and Nevill confirms this, depicting extensive areas of woodlands in the south of the county (figure 10).

Mining was another important industry in various parts of the county, and notably, Nevill used a mining image as the cartouche for his map (figure 9). Copper mines provided employment in the Avoca area from the early years of the eighteenth century⁷⁹ and in the 1750s 500 people were employed in mining at Cronebane, in Castlemacadam (then Kilmacoo) parish, and a second, large scale mine was opened in the same region, at Ballymurtagh.⁸⁰ The industry was tempered towards the end of the eighteenth century, by high rates of duty on exports to England,⁸¹ but the free trade ushered in by the Act of Union led to the reconstitution of the industry on a more commercial basis.⁸² In 1801, a total of 319 people were reported to be employed in various aspects of the mining industry in Castlemacadam parish, accounting for more than 10 per cent of the total population, and the employment in 1752, cited above, was sure to have been proportionately considerably higher.⁸³

Effluent and pollution from the mining industry ultimately led to the destruction of a profitable and important salmon and trout fishing industry downstream at Arklow, by 1740,⁸⁴ but advantages had accrued to that town too. Although the Cronebane ore was carted to Wicklow, from whence it was exported

to Wales for processing, the owners of the Ballymurtagh mine constructed a smelter at Arklow for local processing.⁸⁵ Bearing in mind the advantages of river transport, it is not certain why Arklow did not become the focus for all ore exports, but the limited capacity of its port may well have been a factor. Certainly, the carting of rock and ore between Cronebane and Wicklow town must inevitably have been both costly and injurious to the road network between Wicklow and Avoca.⁸⁶ Mining brought other advantages, too, and agricultural practices could be a beneficiary. Robert Fraser, in his 1801 *Statistical survey* of the county, observes, that, similar to the linkages between the timber and iron industries, which were noted earlier, the presence of a substantive mining industry in the area permitting the importing of lime from Wicklow port 'at an easy expense'.⁸⁷ Clearly, rural economies in pre-industrial Wicklow, while they may have been parsimonious, were anything but unsophisticated.

During most of the eighteenth century little mining was carried out elsewhere in the county, other than in the vicinity of Avoca (figure 10). In 1800 a lead mine in remote Glenmalure was in production, at Ballyfunshoge, on the southern side of Lugduff mountain, and lead mines were later opened at Glendassane and Glendalough.⁸⁸ In the 1820s the ore at Ballyfunshoge was being smelted on site before being transported out of Glenmalure.⁸⁹ Towards the end of the eighteenth century, in August 1796, the public discovery of gold at Ballycoog in Ballintemple excited a flurry of interest among the local inhabitants, before the army seized control of the location in October, and put an end to the prospecting.⁹⁰

The astonishing discovery caused an immediate and general sensation throughout the country: all the lower class of people, of every sex and age, were busied in exploring this golden mountain, from the labourer who could weild [sic] a spade or pickaxe, to the child who scraped the surface of the rock with a rusty nail, all were employed daily to the number of some thousands in search of gold; all rural labour was of course suspended: fortunately the harvest had been previously gathered in, otherwise the country had dearly purchased its golden treasures.⁹¹

By the mid-1810s production at the site had been discontinued, but a guard was maintained to prevent 'the idle assemblage of the populace'.⁹²

With the southern parts of the county having clear natural advantages in terms of geology, raw materials and strong political and infrastructural links with the outside world, it is unsurprising to observe a relative paucity of rural industry in the northern half of the county (figure 10). Of course, the development of rural industry in a region was predicated on the presence of three requirements – substantial capital investment, the enthusiastic support of a landlord, endowed with an entrepreneurial spirit, and the availability of raw materials. Typically, therefore, a substantial estate was a common feature of areas where rural industry sprouted or where new enterprises were entertained. Nevill's representation of the Shillelagh region, home to a strong iron industry, shows many infrastructural features which were distinctive of an established estate, including free schools and an extensive deerpark at Coolattin.⁹³ Further to the north, in west Wicklow, both the Baltinglass and Dunlavin regions boasted race courses, and deerparks were also located at Castleruddery, south of Donard, at Baltinglass and at Blessington.⁹⁴ Features such as these are sure evidence of a confident, substantial gentry society, and are, unsurprisingly, also to be found dotted along the heavily settled east coast. In the northeast large deerparks were located at Kilruddery and Powerscourt, and three smaller ones further south, at Dunganstown and West Aston, south of Wicklow town, and at Whaley Abbey, near Rathdrum. The flat, sandy lands of the Murrough, to the north of Wicklow town were another popular location for horse racing, and during the latter half of the eighteenth century Viscount Powerscourt laid out a race course on his estate 'at the critical moment of a lamentable dearth ... [when] a starving peasantry assembled in multitudes, to avail themselves of his bounty'.⁹⁵ However, the variety of rural industries which peppered the southern and western regions during the eighteenth century was not equally matched elsewhere in the county. Although the presence of lead deposits 'in the bosom of some of the mountains' had been acknowledged by the 1740s, 'for want of a sufficient fund to work them, they are neglected', and it was not until the next century before their exploitation commenced. Neither was eastern Wicklow endowed with energy supplies comparable to the substantial timber reserves with which the south was well endowed.

One of the few industries that were practised north of a line from Wicklow, through Carysfort, to Dunlavin, was quarrying (figure 10); an abundance of good quality granite facilitated the development of a substantial and sustained industry in the north-west of the county, near Blessington. Nevill shows two stone quarries to the east of the town, at Golden Hill and at Oldcourt, and the Physico Historical Society survey, two decades previously, referred to 'good quarrys of slat[e], flag & other stones fit for building' in the county. In the early nineteenth century a new and important quarry was opened to the east of Blessington, at Ballyknockan,⁹⁶ and elsewhere, Nevill showed a stone quarry at Carysfort and slate quarries at Dunlavin and at Kilmacrea, in Redcross (formerly Ballydonnell) parish. Transporting the quarried material from quarry site to construction site must have represented a substantial challenge, and a substantial cost. Likely, much of the material would have been used in the localities for building houses, walls and walled gardens on the various estates, but Wicklow granite was also used in many of Dublin's landmark buildings.⁹⁷

Nevill's map also provides the first detailed presentation of the principal roads through the county, although many of these roads, particularly those linking minor towns and villages, were likely of dubious quality. Contemporary comment about the condition of the public roads is scarce and often contradictory, so it can be a challenge to form a convincing impression of the quality of the road surface or the challenges involved in travelling through the county.⁹⁸ Before the nineteenth century the surface of many of these roads was likely to have been roughly paved; in 1812 Edward Wakefield noted that 'places are often found, where the old-fashioned paved roads are still in existence. I remember them to have been twenty years ago very general in some counties, but at present they are confined nearly to those of Kilkenny, Kerry, and Wexford, where the roads are the worst in Ireland',⁹⁹ and John Carr, during his 1806 tour, was impressed 'to find such excellent roads, and no turnpikes ... wherever we moved, in the course of our Wicklow tour', in spite of the county boasting a relatively low level of expenditure on its roads' network.¹⁰⁰

While paved roads may have been typical along the main routes, gravel was considered a sufficient surface for less popular roads. In 1758 a Rathdrum

vestry meeting approved a cess to 'make, raise and gravell' a new road to Ballykine churchyard, which was later described as 'good and sufficient'.¹⁰¹ Comparing routeways shown by Nevill with the modern road network can also provide evidence for the quality of the roads system during the eighteenth century (appendix 6), and parts of many of Nevill's roads correspond with the lowest quality roads on the modern Ordnance Survey *Discovery Series* maps, and even the main roads to Dublin presented challenges. The inland route from Wicklow town to Arklow, the county's two principal urban centres in 1760, for example, wound south-westerly, then southerly, through the small village of Redcross, but today, the quality of this route progressively deteriorates beyond Redcross for three kilometres, until it improves again at Barranisky Cross Roads, on the approach to Arklow.¹⁰² The important, and strategic, market towns of Wicklow and Rathdrum were also linked by a route that is shown on today's Ordnance Survey maps as trackway. A contemporary, official commentary on the difficulties associated with land travel is also illustrated by a statute passed by parliament in the 1770s, which aimed to encourage grain growing by paying bounties to producers, to reduce the relative costs of delivering grains to the market. The bounties were, however, only payable on grain that was transported by sea.¹⁰³

In spite of this, the principal routes, linking Wicklow's regions with Dublin or connecting market towns, were still of better quality than east-west routes, or cross-roads. Gabriel Beranger's description of his 1779 journey to Glendalough includes a comment about the road between Roundwood and Glendalough, which merited inclusion on Nevill's *Map*. Travelling by chaise, he turned off the main road between Dublin and Rathdrum, onto a road which was 'so bad and rocky that we were obliged to alight, the servant leading the horses'.¹⁰⁴ Travel by chaise was, it would appear, a luxury that was only appropriate for the principal routeways.

Rivers, seen earlier as an important element in the transport infrastructure of the region, could also present challenges, particularly after heavy rainfall, and the Wicklow grand jury was proactive in building or improving bridges throughout the eighteenth century. Mostly, new bridges were confined to the principal roads, such as those at Ardairry and at Pennycomequick (built in 1738), on the main route linking between Wicklow town and Arklow. Ardairry bridge,

built because 'the sand hill on the land of Ardairy on the great road leading from Wicklow to Arklow, as lately viewed, is very difficult for carriages to pass through at any season' had been shown on Moll's map, even though it was not constructed until 1737.¹⁰⁵ Wooden bridges were also progressively replaced by stone constructions, as at Aughrim, in 1717, Clara in the early 1730s and Newrath, in 1735, each also strategically located on primary routeways.¹⁰⁶ Minor routes received less frequent attention. In 1715 £13 was authorised to build a bridal bridge over the Vartry River, at Annamoe,¹⁰⁷ a route which provided access to Glendalough and was only infrequently travelled. Annamoe was located on the road that Beranger was to describe decades later as 'so bad and rocky'.¹⁰⁸

It is likely that Annamoe received this attention because it was located on the principal cross-mountain route¹⁰⁹ – and the only one which Nevill chose to represent on his map – which linked north-west Wicklow with Glendalough, and Wicklow borough,¹¹⁰ although this road was probably impassable much of the time. By the middle of the mid-nineteenth century a survey of Wicklow's mining industry notes that there are only three passes through the mountains – 'Sally Gap, Wicklow Gap, and Glenmalure. The first two of these passes were, prior to 1798, scarcely ever practicable, even in summer; but the great military roads made during the unhappy insurrection of that period have since rendered communication by all of them convenient at every season of the year'.¹¹¹ While this comment, made some five decades after the opening of the Military Road is unlikely to have been entirely accurate, it does, nonetheless, highlight the considerable difficulties facing travellers through Wicklow in early-modern times, and particularly before the construction of the Military Road.¹¹² Even at the start of the twentieth century (1908-9) Harry Inglis, in his description of road contours, could describe the Wicklow Gap route in no more fetching terms than 'a fine mountain road, rather stiff to travel'.¹¹³

Nevill does not show a road through the Sally Gap, even though one existed at that time, and is shown both on some subsequent, but near-contemporary, maps.¹¹⁴ Rather does he show a road, departing from the road linking Enniskerry to Roundwood, at Sraghmore and travelling westerly, then northerly, to Luggelaw Lodge, at which point it terminates. A further section of

the road – short and isolated – is shown near the Sally Gap, and in the west, he shows a road travelling east from Blessington,¹¹⁵ and terminating at a free stone quarry near Woodend Hill. This segment of road probably represented the western segment of the Sally Gap route at that time.¹¹⁶ That Nevill chose to represent only parts of this route must indicate that the surface of this road was extremely poor, and, for Inglis, the Wicklow gap route was ‘the easiest pass across the Wicklow mountains’.¹¹⁷

The quality of the road network was especially important in the case of County Wicklow, because good roads were necessary in order to overcome the difficulties presented by the geological barriers, and this was particularly the case with east–west routeways, which were essential if the distinct regional economies were to be integrated. In the latter half of the eighteenth century parliament attempted to encourage the development of roads through inaccessible parts of the kingdom, including through the Wicklow Uplands, in order to encourage their settlement and development.¹¹⁸ Prior to 1765 the responsibility for the maintenance of the principal roads lay with the individual parishes,¹¹⁹ but the operational methodology – six days voluntary labour from parishioners – was old-fashioned, cumbersome and difficult to implement, and failed to ensure that, with few exceptions, even the most commonly used roads were rarely in little more than a tolerable condition. The perilous condition of the road system would ensure that trade and economic development would be hindered, and parish maintenance of roads was particularly unsuited in the mountainous, thinly populated regions which typified central Wicklow. In the case of key mountain route through Sally Gap, for example, it was not possible for Derrylossary parish, through which the route passed for much of its course, to effectively maintain this route under traditional methods. Even after 1759, when amending legislation, permitting the seizure of goods from defaulting parishioners to fund the employment of labourers in their place, was passed,¹²⁰ the road network failed to substantially improve.

Thus, in 1765, responsibility for the maintenance of the road system was transferred from the parish to county grand juries, but within upland Wicklow the impact of this change was minimal, and the condition of roads did not substantially improve. For this change to have a substantive impact on Wicklow’s

cross-mountain roads, well-populated baronies were necessary, but the road networks in thinly populated areas were less likely to benefit. Of more significance for the county, however, the grand juries were also empowered to build new roads by plotting new, more convenient, routes between market towns if they deemed necessary.¹²¹ This new authority provided considerable scope within Wicklow, and produced substantial change in the visage of the county's road network in the forty years between Nevill's survey and the Act of Union.

During the 1770s and 1780s further statutory initiatives were passed to improve or build roads through mountainous parts and through thinly populated regions of the country. Commencing with legislation in the 1771-2 parliamentary session, a series of measures permitted the construction of mountain roads to reduced specifications, which the grand juries deemed 'suitable to the nature of the place, through which such road shall run'.¹²² The surface of these roads, had to be constructed of either stones or gravel – gravel surfaces were likely the more common – but they could be narrower than the recommended thirty-one feet, if the grand juries determined them apt, which significantly reduced costs.¹²³ Narrow wheel rims on carts were also disallowed from 1760.¹²⁴

Unfortunately, the grand jury presentments for County Wicklow have not survived, so it is impossible to determine how active the grand jury was in implementing its new responsibilities. The earliest contemporary comment on the performance of the grand jury came with the publication, in 1778, of the first edition of Taylor and Skinner's *Maps of the roads of Ireland*, which provides the first impression of details of the development of the county's infrastructural network in the twenty years following Nevill's survey. Unlike Nevill's map, which presents a traditional cartographic view of the county, Taylor and Skinner's publication (figure 11) presents the maps in two-to-a-page strips, showing the principal features along specific routes, and is, in terms of the road network, less detailed than Nevill's presentation, only detailing the principal roads between large towns. Nonetheless, the maps are sufficiently clear to indicate that, despite the statutory efforts of parliament, little progress had been made in the reconstruction of a road network more appropriate to Wicklow's topography and industrial make-up, and more appropriate for fostering economic development.



Figure 11 – Wicklow’s principal roads in 1777, superimposed on Jacob Nevill’s 1760 map (source: Taylor and Skinner, *Map of the roads of Ireland* (1777), pp 138-42, 145-7, 155).

Note: Part of Ballydonagh Lane (see discussion in appendix 6) is marked on Taylor and Skinner’s roads map.

A direct comparison between the road networks shown by Nevill and by Taylor and Skinner is inappropriate, because there is clear evidence that some roads which must have been in existence in 1760 were omitted by Nevill,¹²⁵ although some developments had occurred between the two surveys (figure 11). By the time of Taylor and Skinner’s publication, the road to Enniskerry, south

from Dublin, had been diverted westwards, through The Scalp, and a second road across the mountains – the road through Sally Gap, which Nevill had shown only in part – is also unambiguously shown.¹²⁶ Further south, at Ballinaclash, two new roads, travelling in a westerly direction, are shown. One of these appears to be the link road between Ballinaclash and Carysfort, which appears on later maps, but was not shown by Nevill, and the second road is shown swinging north-westerly, towards Ballard. This second route was important; ultimately it was to be continued in a north-westerly direction to the top of the Glenmalure valley, before travelling westwards across the mountains towards Donard and Baltinglass, but the part beyond Ballagh had probably not been commenced by the time Taylor and Skinner's road atlas was surveyed.¹²⁷ Lead had been discovered in Glenmalure in the 1720s but intensive exploitation of the mineral did not commence until 1783,¹²⁸ and it was not then that the road, which opened in the 1780s, became necessary.¹²⁹ In fact, it is notable that the opening of the mines post-dated the parliamentary incentives, alluded to earlier, to build roads in mountainous regions, and had it not been for the passage of those statutes it is doubtful if a third route across the mountains could have been justified. Prior to the commencement of the mining operation, the Glenmalure valley was of little economic worth, although 'a little rich lawn through which the river meanders' provided some summer pasturage for cattle.¹³⁰

The new Glenmalure route proved of little benefit to Baltinglass, the principal town in the west of the county, and a focal point for the linen industry. Rather did it facilitate communication between the Donard/Dunlavin area and the ports of Arklow and Wicklow, but still left thriving Baltinglass isolated from the coast. In 1798, Jacob Nevill's cousin, Arthur Nevill, published an updated county map, which provides the next substantive view of infrastructural developments in the county. A rapidly evolving infrastructural landscape over the previous two decades is the inevitable interpretation from Arthur Nevill's survey. Figure 12 shows the modifications which occurred to the communications infrastructure between 1760 (Jacob Nevill) and 1798 (Arthur Nevill), based on the presentations of the infrastructures in their two surveys.



Figure 12 – New roads shown on Arthur Nevill’s 1798 survey, superimposed on Jacob Nevill’s 1760 map. All of the roads in 1760, except those highlighted in green, were replicated by Arthur Nevill.

Note: the primary east-west route, through Wicklow Gap, had been re-orientated, and now ran to the north of King’s River. Most of the old route, which had been focussed on Hollywood, had been abandoned, and the route was now orientated towards Blessington.

By the time of Arthur Nevill’s cartographic exploits the east-west routes had been further modified, and a fourth east-west road, designed to link Baltinglass with Rathdrum, had been started. Although only partly complete, this new route may have improved the communications options for the south-west

Wicklow region, centred on Baltinglass and Rathvilly, County Carlow, as it provided a shorter passage from Baltinglass to the sea at Arklow, via Aughrim. Progress had also occurred further north, with the Glenmalure route, linking Donard with Rathdrum, now completed, although William Wilson's note that 'from this [Glenmalure] valley, the road is continued with as easy an ascent as the nature of the ground admits' implies a sense of the difficulties involved in travelling a road which, over the course of five kilometres, climbed almost 500 metres as it skirted the trough between Table Mountain and Camenabologue, two of the county's highest peaks.¹³¹ It would appear, therefore, that in spite of Wilson's protestations that this route 'is of great advantage',¹³² passage along it cannot have been appealing, and it was likely impassable for prolonged periods, and was probably never passable with heavy loads. Nonetheless, although through traffic was rare, the presence of an important lead mine at Ballinafunshoge, on the northern slopes of the eastern part of the valley, which had been worked at least since the mid-eighteenth century,¹³³ suggests a substantial population in the glen, which was sufficiently large by the middle of the nineteenth century to justify the presence of a national school.¹³⁴

Table 4 – Development of the road infrastructure in County Wicklow.

Map (date)	Miles of road (Irish)
Moll (1714)	269
Jacob Nevill (1760)	461
Arthur Nevill (1798)	c. 560
Robert Fraser (1801)	579
G. N. Wright (1822)	659

Source: O'Keefe and Simington, *Irish stone bridges*, p. 47; O'Keefe, *Alexander Taylor's roadworks in Ireland, 1780-1827*, p. 57.

Despite the clear infrastructural improvements which had occurred during the latter half of the eighteenth century, Richard Griffith's description of the condition of the various east-west routes, in an 1812 report compiled for the Commission on Irish Bogs, amply conveys the difficulties involved in travelling those roads.¹³⁵ It is notable that rivers were forded rather than bridged along all of these roads, which further compromised travel (figure 14). Notably, the incomplete section of the Baltinglass to Rathdrum route shown on Arthur Nevill's map (figure 12) had been rendered superfluous by the new Military Road, and had

never been completed. Thus, by the early nineteenth century only three routes linking east and west Wicklow had survived. The oldest of these routes, through the Wicklow Gap, was in extremely poor condition. From the Glendalough side 'the first two miles were only marked out, at the end of which it had been formed but not gravelled'.¹³⁶ It would seem, therefore, that this route, despite it being the primary route across the uplands, linking the north-west with Wicklow town, little more than an un-surfaced, muddied track. The Sally Gap route, which had been shown in part by Jacob Nevill and in its entirety by his cousin, Arthur, was in worse condition, poorly laid out and accessible only on foot, or on horseback, despite it having recently been improved when the Military Road was being built.¹³⁷ 'Even in the valley of the river Liffey where the descent might have been gradual, it has usually been carried over instead of round the projecting points of mountains which bound the valley. It is at present also in wretched order and is impassable to carriages of any description'.¹³⁸ Worse still, and most challenging of all, was the southernmost road, through Glenmalure. Griffith describes the western end of the road, near Donard, as 'extremely good, but the mountainous part, viz. that which crosses over Table Mountain, and that in the upper part of Glen Malure, is barely passable for horsemen. With some attention and a trifling expense, it might be rendered fit for farming carriages'.¹³⁹ It was, therefore, of little use in the economic sphere.

In spite of these evident difficulties, however, the construction of roads linking the eastern coast with the western plains did represent an important phase in the economic integration of the county. Previous to these constructions, County Wicklow, since its inception, had largely been an administrative convenience, artificially binding distinct and disparate social and economic regions, but the new east-west link roads at least provided the possibility of shared development. Furthermore, the development of an enhanced infrastructure also indicates that rural economic developments were spurring travel and transport within the county in the latter half of the eighteenth century. The development of mining operations in Glenmalure and along the Avoca Valley, for instance, provided employment opportunities, and the construction of roads across the mountains facilitated access to these sites from the mineral-deficient west.

Other infrastructural enhancements were also being simultaneously propounded. In the early 1760s parliament approved the expenditure of the impressive sum of more than £7,200 on improvements to the harbour at Wicklow, to accommodate ships of 200 tons and to provide an alternative route of supply between Dublin and Wexford. The results may have been less impressive, however, for in the 1790s the port was still 'of little trade', and by the 1810s the harbour could admit 'nothing but small craft'.¹⁴⁰ Arklow harbour was also receiving attention, and in the 1790s parliament authorised the reconstruction and expansion of Arklow harbour by the Hibernian Mine Company.¹⁴¹ The new harbour was to facilitate the export of ores from the recommenced, and then booming, mining operations, but ultimately proved of limited success.¹⁴² At this time a canal from a reconditioned Arklow harbour to the bridge at the Meeting of the Waters and from there branching north-westwards to the lead mines at Glenmalure and westwards towards the coal mines in Kilkenny was also being proposed, as an alternative to road transport and later, in the nineteenth century, an innovative railway was constructed to transport copper ores from the mines at Ballymurtagh to the harbour, before the mainline railway had even reached Bray.¹⁴³ Although nothing ever came of this grandiose scheme for a network of canals, nonetheless, the various improvements to the road network and the improved marine facilities at Wicklow's principal ports facilitated, to a limited degree, access between the linen and cloth producing areas in the west and the ports in the east.

The other significant road developments highlighted by Arthur Nevill are broadly concentrated in the east of the county, and particularly in the southern baronies of Arklow and Ballinacor South. Notably, it is clearly evident from figure 12, that many of these new roads were explicitly orientated towards the port of Arklow, then in receipt of the flattering attentions of parliament. It must be acknowledged that it is unclear whether some of these roads were in existence in 1760 but not shown on the earlier map, or whether they were entirely new roads, although the various parliamentary encouragements to rebuild and repair roads coupled with the assumption of the responsibility for road-maintenance by the grand juries likely resulted in either the construction or improvement of many. In

general, there were few additions to the road infrastructure between major towns between 1760 and 1798, with the exception of the east-west mountain routes. East-west communications within the barony of Arklow had also improved, with the construction of a new road between Aughrim and Pennycomequick, via Castlemacadam. Further to the north, a new, shorter road, had been constructed between Annamoe and Laragh, and a short, but important, new route between Foxhall and Clara reduced the distance between Wicklow town and the north-west of the county, along Wicklow Gap. At the western end of Wicklow Gap a new road is also shown between Garryknock and King's River, which represented a significant improvement (a reduction of about 5 kilometres) on the Blessington-to-Wicklow route, via Hollywood, which had been shown by Jacob Nevill. New east-west link roads had also been established in the north-east, but the scale of these developments did not match those orientated towards Arklow.

Clearly, the intensive phase of road construction, which must have been concentrated in the last two decades of the eighteenth century, is a manifestation of the impact of belated economic developments. All of these new routes were designed to reduce commuting distances, between urban centres, to facilitate access to raw materials, or to reduce the distance, time and costs involved in transporting merchandise between urban centres and the modestly improving harbours in the east. By 1798 Blessington, Donard, Baltinglass and Dunlavin in the west, and Aughrim, Tinahely, Rathdrum and Roundwood in the midlands, were all considerably closer to the east coast than they had been during the 1760s, and much of this road construction had been facilitated by landowners, and driven by the requirements of industry. Lord Carysfort, for example, had permitted the construction of a new road along the Avoca River, linking Ballintemple with Arklow, which shortened and eased the journey.¹⁴⁴ Tourism may also have been spurring developments. To the north, near Ashford, a new road had been constructed by 1786, by Lord Rossmore and Charles Tottenham along the Devil's Glen, to the base of the waterfall, although this private road, built to facilitate tourists, did not appear on the 1798 plot.¹⁴⁵ Most of this routeway remains largely unimproved today, and provides physical evidence of the likely condition of much of the road network in the eighteenth century (figure 13).



Figure 13 – Road surface on access route through the Devil’s Glen, constructed to facilitate tourist access in the late eighteenth century. The paved road is four kilometres in length and, never exceeding two metres in width, is constructed of large stones, firmly set into the ground.

Commuting difficulties between the middle years and the end of the eighteenth century must have been further eased by the replacement of river fords with bridges throughout the county, but most particularly in the south (figure 14). Bridges were common on the newer roads, although, being expensive to build and maintain, fords remained favoured where traffic-volumes were light, or where the water was shallow, or slow-moving. Small streams were often allowed to run across the surface of the road, which damaged the paved road surfaces, and bridges were rare on all of the routes connecting the east and the west of the county, even on the newly constructed ones. In Shillelagh, substantial improvements in the road infrastructure had been effected, and by 1798 only one ford, at Boley, between Shillelagh and Knocklow, remains marked in the barony, although they had been commonplace in the 1760s. Progress was slower in the west, but there also the number of bridges had increased, particularly on the main roads towards Dublin. Developments were less spectacular in the east, but new bridges had replaced fords on the principal routes, including near Kilcoole and at Newcastle and Blackbull, on the main road to Wicklow town, and the route southwards from Wicklow town, towards Arklow, had been similarly improved.

Bridges were also typical on the new road network orientated towards Arklow port.

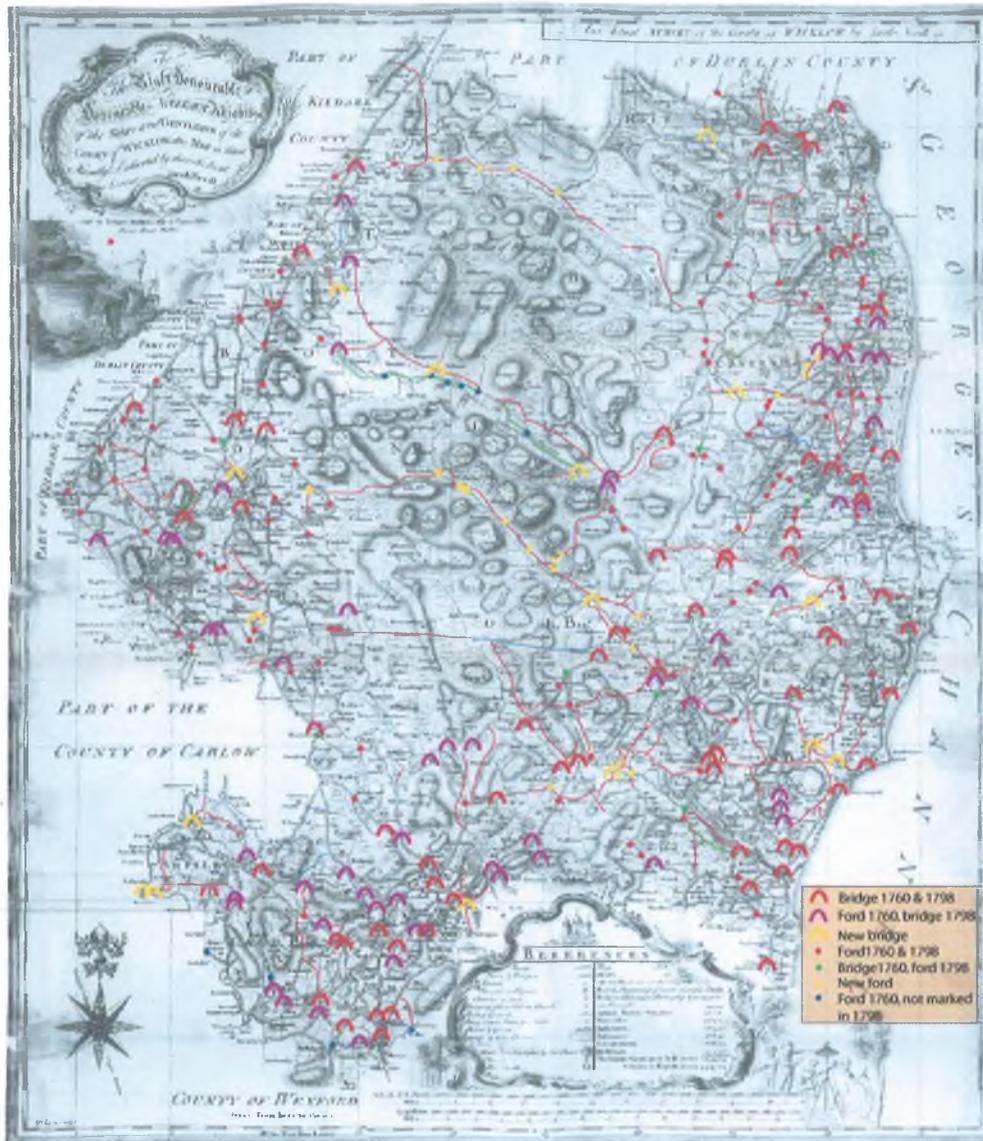


Figure 14 – Bridges and fording points on Wicklow’s principal routes in 1760 and 1798. Based on these two surveys, the clearest improvement in infrastructure had occurred in the south of the county.

Urbanisation, and industrial development

No significant changes to the pattern of urbanisation in the county in forty years after 1760 are evidenced by the two maps, with the exception of the establishment of a new planned town, Stratford, in the west of the county. Located

a few kilometres north of Baltinglass, industrial opportunity had been the spur for its establishment by the earl of Aldborough in the 1770s and 1780s, as a centre for the printing of cottons and the manufacture of calico by workers introduced from Ulster and from Paisley in Scotland.¹⁴⁶ In 1786, William Wilson described the model town in glowing terms – ‘it consists at present of four squares and twelve streets, and will, when finished, be augmented to nine squares, and near thirty streets... The town is to be lighted and paved, and to have a fountain of water or obelisk in each square’, and for Wakefield in 1812 it had ‘an appearance of superior opulence and industry’.¹⁴⁷ Economic success could bring disadvantages, too, however; for William Hanbidge, of Donaghmore, Stratford was ‘a prosperous little place but it was also a most abominable wicked place. The scenes to be seen of a Saturday night and on Sundays were awful. Drunkenness, prostitution, cursing and fighting’, and Thomas O’Conor, during the course of the first Ordnance Survey, was equally underwhelmed.¹⁴⁸

It seems probable that the continued development of linen and cotton industries in the west of the county, and particularly the establishment of Stratford, was the spur for the construction of the link road through Glenmalure during the 1780s. Although the route was difficult, it encouraged the development of economic linkages between east and west Wicklow, and encouraged the development of cloth-based industries to the east of the mountains during the closing decades of the eighteenth century. At Rathdrum, a flannel fair was held on the first Monday of every month, in a purpose built flannel hall, which provided a market for locally produced produce. Constructed by earl Fitzwilliam in 1793,¹⁴⁹ the hall merited inclusion on Arthur Nevill’s map, as did Henry Allen’s woollen factory (‘the best in Ireland’) and mill a few kilometres further to the west, at Greenane. Allen’s factory, the showpiece of the county’s industrial development, was involved in the ‘manufacture of superfine woollen cloths’, and was, according to Fraser, employing more than 300 people at the outbreak of the rebellion, which suggests a population in the surrounding area of 1,000, or more.¹⁵⁰ However, in spite of the presence of significant employment opportunities at Greenane, and despite the Catholic chapel of Rathdrum parish being located there,¹⁵¹ no town ever developed, and the 1831 census recorded just eight houses in the hamlet.¹⁵²

Furthermore, although Allen's factory was burned in 1798 and never rebuilt, an indication of its scale can be garnered from the size of compensation claim (£5,366: 9: 0 ½) lodged by Allen in the aftermath of the rebellion.¹⁵³

Although one must be careful not to overstate the importance of the industrial and infrastructural developments that were occurring in the latter decades of the eighteenth century, they were, nonetheless, significant. The agricultural economies that typified rural Wicklow in the early modern period were primarily cashless economies, which required only rudimentary communications and economic infrastructures, but the various regional industrial drives which were occurring during the latter half of the eighteenth century forced the upgrading of traditional infrastructures. Factory employment did not just provide new and exciting economic opportunities but it also translated communities from cashless to cash-based economies. At Stratford in 1809, for instance, 500 people were in employment in one calico factory, and unprecedented sums of money were being earned – 'men earn two guineas per week, women seven shillings, and children three-pence per day'.¹⁵⁴ The social impact of this was significant; a weekly market was established to supply necessities to the industrial workers, and the new Glenmalure route was required to transport goods to the ports, and to markets.

Although Stratford was exceptional, by virtue of the size of its manufacturing operation, similar developments, on a reduced scale, were occurring throughout Wicklow during the second half of the eighteenth century, and all of this industrial development, be it the manufacture of cloth, the exploitation of timber resources or the expansion of mining, was characterised by the payment of money-wages. Crucially, too, industrial development also providing the labouring classes with an additional bulwark against disaster during economic downturns. Charles O Hara, writing about Sligo in 1760, for instance, intimates that 'the wetness of this season would have created dreadful apprehension fifteen years ago. At present I fear little from it'.¹⁵⁵ Similarly, in Wicklow the gradual expansion of cloth-based industries is likely to have had the additional benefit of lessening the immediate threat of starvation during years of harvest difficulties.

Urbanisation, of course, is a typical consequence of industrial development, as the availability of regular wages permitted a community to divorce itself from dependence on the land. Before the nineteenth century Wicklow was predominantly rural, and its towns remained of limited size. In the 1660s the Wicklow hearth money roll records thirty or more tax payers in only six towns in the county. Pre-eminent was Wicklow town, which, with 152 taxpayers, was more than double the size of the second town, Arklow (figure 15). The actual number of people living in these towns at this time is unknown, but Wicklow town's population is likely to have exceeded 1,000. Smaller towns, which subsequently developed into important settlements, included Bray in the north east (twenty-four taxpayers) and Shillelagh (fourteen) and Carnew (twelve) in the south east. It should, of course, be remembered that all of these towns were likely much larger than the number of taxpayers suggests, although all were likely to have been small and the rank-order of the number of taxpayers is likely to have closely reflected the proportionate size of each urban centre.

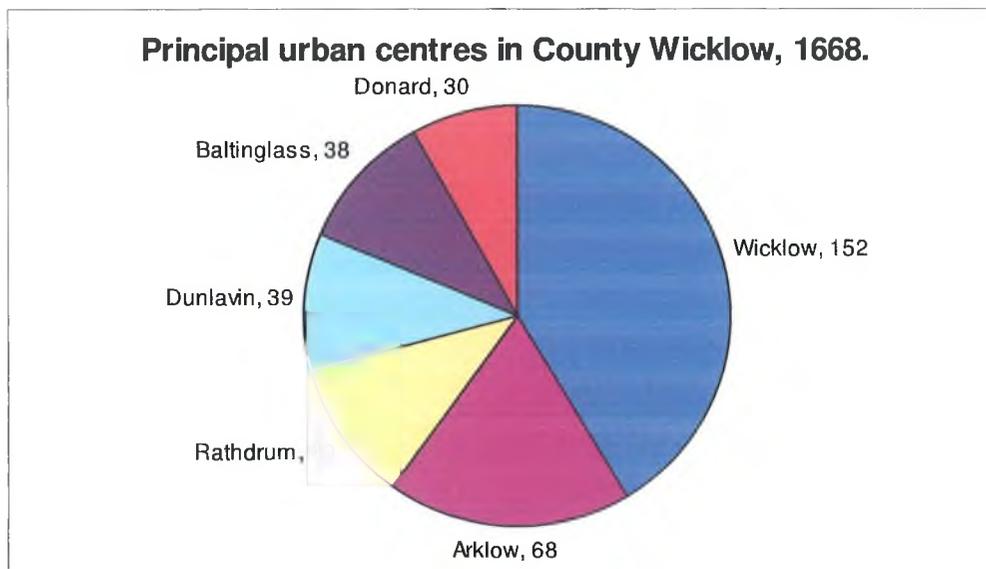


Figure 15 – Hearth money taxpayers in Wicklow's principal towns, 1668-9 (source: N.L.I. G.O. 667).

Bearing in mind the muted economic development within the county before the 1760s, it is unlikely that urbanisation of the county proceeded at any great pace in the nine decades subsequent to the compiling of this roll. Thus,

although there is no supporting evidence, it is reasonable to speculate that Wicklow and Arklow remained the largest towns in the county in 1760, and while Jacob Nevill's map provides no more than a cursory view of the size of urban areas, Wicklow and Arklow are unmistakably portrayed as the two largest towns in the county, with Wicklow clearly the larger of the two. In 1786 William Wilson also described Wicklow as 'the principal town of the county', and although this casual description was similarly repeated in a republished edition in 1815, by which time Arklow had surpassed Wicklow town in terms of size,¹⁵⁶ it is likely to have reflected the situation in the 1780s, as subsequent editions of the *Post chaise companion* were rarely extensively updated.

It is impossible to grade the remaining urban settlements, based on their presentation on Nevill's map, although the principal urban settlements can be identified. In the north east, Bray, Enniskerry, Delgany, Kilcoole, Newtown Mount Kennedy and Newcastle were all locations of concentrated settlement, and south of Wicklow, Rathdrum, Ballinaclesh and Redcross, on the inland route between Wicklow and Arklow, appear as small, but strategically sited, urban centres. Rathdrum, one of the larger towns in the 1668 tax roll, may have been the largest of these towns, but it was not dramatically so. There were few significant urban concentrations in the south of the county, but Carnew was probably the largest, with other population centres located at Coolboy, Tinahely and Aughrim. In Talbotstown, Baltinglass, driven by the expanding linen industry, was probably the largest town, and Dunlavin and Donard, are shown as being of comparable size. Two decades later, Baltinglass was the only town in west Wicklow which William Wilson considered merited being described as 'large'.¹⁵⁷

The next substantial view of urban settlement in the county does not become available until 1821, when the census reported that Arklow, with a population of 3,808, occupying 551 houses, had surpassed Wicklow town, to become the county's largest town. Only four towns, Arklow, Bray, Wicklow and Baltinglass had populations of more than 1,000 and a further five towns – Carnew, Rathdrum, Dunlavin, Stratford and Donard – contained 500 or more inhabitants (figure 16). Bray, which had been very small in the late 1660s, had also grown

dramatically, and had also surpassed Wicklow town, which had slipped to third place.

The extent to which the historically pre-eminent Wicklow town was eclipsed by towns to the north and south is remarkable. In 1821 the census was reporting the town's total population to be marginally above 2,000 persons, which cannot have been much above its population in the mid 1660s.¹⁵⁸ The rapid expansion of Arklow town, by contrast, is, of course, to be expected, bearing in mind the considerable infrastructural improvements that had occurred in the south of the county in the four decades after 1760, much of which was focussed on improving the access routes into Arklow (figure 12). Revd Henry Bayly, rector of Arklow, writing about the town in the 1810s, suggests that considerable improvements had occurred within the town since the 1770s. This enhanced prosperity had arisen from increased employment opportunities, principally centred on the herring fishing industry, which was, at the time, 'considered, (next to that of Galway) as the best on the coast of Ireland'.¹⁵⁹ It is ironic that fishing was the driving force behind Arklow's advance in the latter years of the eighteenth century, as it had been the demise of a substantial, long-established trout fishing industry in the estuary by the 1740s as a consequence of the commencement of mining upstream, at Avoca, which had stifled the town's growth half a century earlier. The quality of the town's housing stock had also improved considerably since the 1770s. In the middle of that decade Arklow 'was merely a fishing hamlet, and with the exception of one slated house, consisted of a number of thatched cabins built of mud', but by the 1810s there were 'sixty-three slated houses, two stories high, with considerable accommodation in the rere [sic]'.¹⁶⁰ Mud houses still predominated in the poorer fishing quarter, but although they remained 'irregularly placed, and badly constructed', they were 'neither of the best nor worst construction', with most comprising of two or more rooms.¹⁶¹

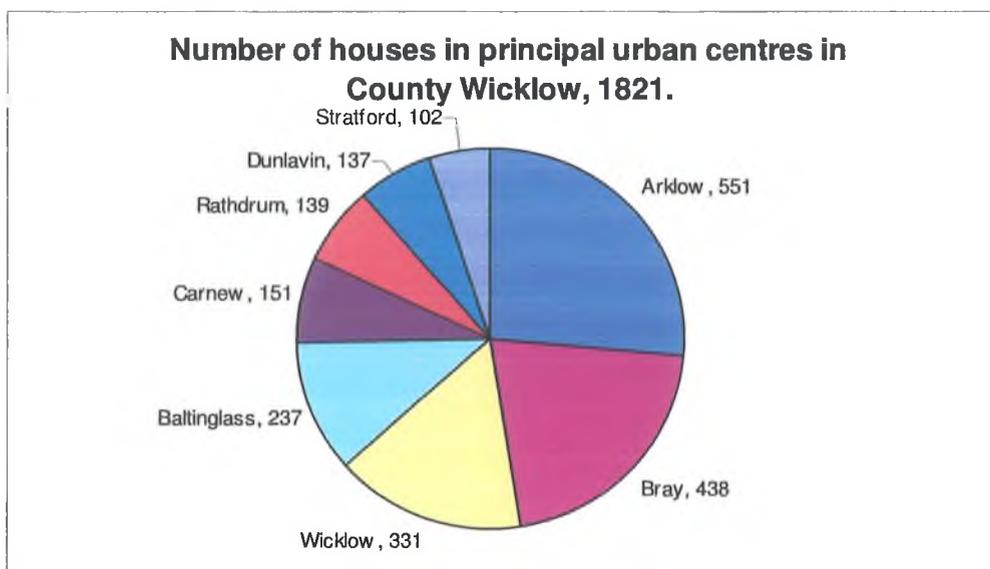


Figure 16 – Number of houses in principal urban centres (100 or more houses) in County Wicklow, 1821 (source: *Census Ire., 1821*, pp 126-31).

Despite the belated, rapid development of the town employment opportunities remained closely tied to the fishing industry. An exclusively male preserve, fishing was seasonal, and, notes Bayly, involved only six weeks work in early summer and a further six weeks in November and December.¹⁶² Women and children were residually involved in the industry, through working in the town's only manufacturing industry, which revolved around the production of hemp and fishing nets. More than 1,000 women and children were reputedly involved in hemp production by the mid 1810s.¹⁶³

Bayly was unimpressed by the substantial road construction which had been undertaken at the close of the eighteenth century, describing the condition of road surfaces in the region as 'generally speaking, bad', occasioned by the transportation of heavy loads, including ores from Glenmalure, Cronebane and Ballymurtagh.¹⁶⁴ The proposed canal, which was to have been built by the Hibernian Mine Company, had never materialised and Robert Fraser was still lamenting its absence in 1801.¹⁶⁵ Significant infrastructural developments were continuing in the region, nonetheless. Bayly reports that the principal route from Wicklow to Arklow ran along the coast, through Ardair and Pennycomequick, but that a new, inland, mail route, was 'in a state of forwardness'.¹⁶⁶ Another new,

shorter, route between Arklow and the western parts had also been constructed, and a new route between Gorey and Wexford, bypassing Coolgreany, was also being surveyed at the time.¹⁶⁷

It should be noted that the many new routes into the mountains and to the west, which had been constructed since Jacob Nevill's 1760 survey, did not just benefit landowners, industry or local commerce, and neither did they just facilitate inland access to the coast. To the east of the mountains, the price of turf, the staple energy source for most of Arklow's population, 'considerably diminished' following the opening of the access routes to the bogs in the mountains, and the new routes aided the transporting of Arklow's herring catch into west Wicklow, Wexford, Carlow and Kilkenny. Carters were also able to import lime from Carlow (a 24-hour round trip).¹⁶⁸ Clearly, the opening of east-west routes had expanded the economic horizons of Wicklow's distinctive regions.

Ultimately, economic linkages between south Wicklow and Britain were to remain compromised by the condition of the harbour at Arklow, which remained perilous, in spite of the reconstruction work lately performed by the Hibernian Mine Company. Although Bayly notes eighty herring boats based in the town, Edward Wakefield, his contemporary, viewed the harbour as little more than rudimentary.¹⁶⁹ Bayly, too, appealed for the redevelopment of the harbour, but this necessary work was never carried out, and by the 1830s the lucrative herring industry had considerably declined.¹⁷⁰ The failure to develop the harbours at Wicklow or Arklow ultimately curtailed any prospects that the county may have had of substantive economic development.

A final aspect of Wicklow's infrastructural network involved water-transport. Although the proposed canal-route through southern Wicklow was never constructed, Wicklow did benefit from the revolution in transport-infrastructure that occurred in Ireland in the closing decades of the eighteenth century, although only to a marginal degree. The Newry Canal had opened in the 1740s,¹⁷¹ and in 1756 construction commenced on the Grand Canal, linking Dublin with the midlands, and with the River Shannon.¹⁷² Progress was slow, but by 1780 the canal had reached Sallins and by 1784, Robertstown, in West Kildare, was connected with the capital.¹⁷³ From Robertstown, the canal

branched, travelling southwards towards the Barrow River, via Monasterevin, which was reached in 1785, and Athy, which was connected in 1791.¹⁷⁴ From Athy, the Barrow was navigable southwards, to the port of Waterford. In 1790 construction also commenced on the Royal Canal, located further north, which, skirting the Kildare-Meath border, ultimately linked Leixlip, Maynooth and Kilcock with the Dublin market. Although neither construction entered County Wicklow, it will be seen in chapter four that these infrastructural improvements did impact on the western parts of the county, by providing a more rapid and reliable method of communicating and trading with the capital than along the alternative land route, although high prices restricted trade.¹⁷⁵ It is notable, for example, that the first edition of Daniel Beaufort's *Map of Ireland* shows only one route linking Baltinglass and the Dunlavin region, with Dublin, which runs north-westwards to Naas, and the Grand Canal, rather than north-eastwards along the land route.¹⁷⁶

Rural Wicklow

Despite the drive towards industrialisation and urbanisation in the latter decades of the eighteenth century, however, Wicklow remained the least urbanised county in south-east Leinster. Miners, quarrymen, blacksmiths, fishermen, road builders, harbour builders and carters were all minor elements in the county's economy – agriculture, and the exploitation of land remained primary. Land valuations could provide evidence for the demographic colonisation of the natural landscape, but, unfortunately, county-wide land valuations do not become a feature of the fiscal order until the nineteenth century. Prior to then, the key for parish cesses, often recorded in parish vestry records, can give indications of the relative valuation of parcels of land within parishes, but because these keys were compiled at different times and according to local methods and measures, they cannot be used to accurately compare land valuations between parishes. Richard Griffith's *General valuation* provides an essential, simultaneous and standardised insight into land qualities in post-Famine Wicklow, and although this period falls outside the chronological bounds of this study, relative land qualities evidenced by this survey likely broadly reflects localised land qualities during the previous century. Admittedly the various reclamation and fertilising efforts by improving

landlords, particularly in the late eighteenth and the early decades of the nineteenth centuries will have changed relative land values, occasionally substantially, in some areas, but most of these efforts will have been localised, and relatively insignificant at the county level. Figure 17 presents the valuation per acre, per townland, in Griffith's *General valuation*, superimposed on Nevill's 1760 map of the county.

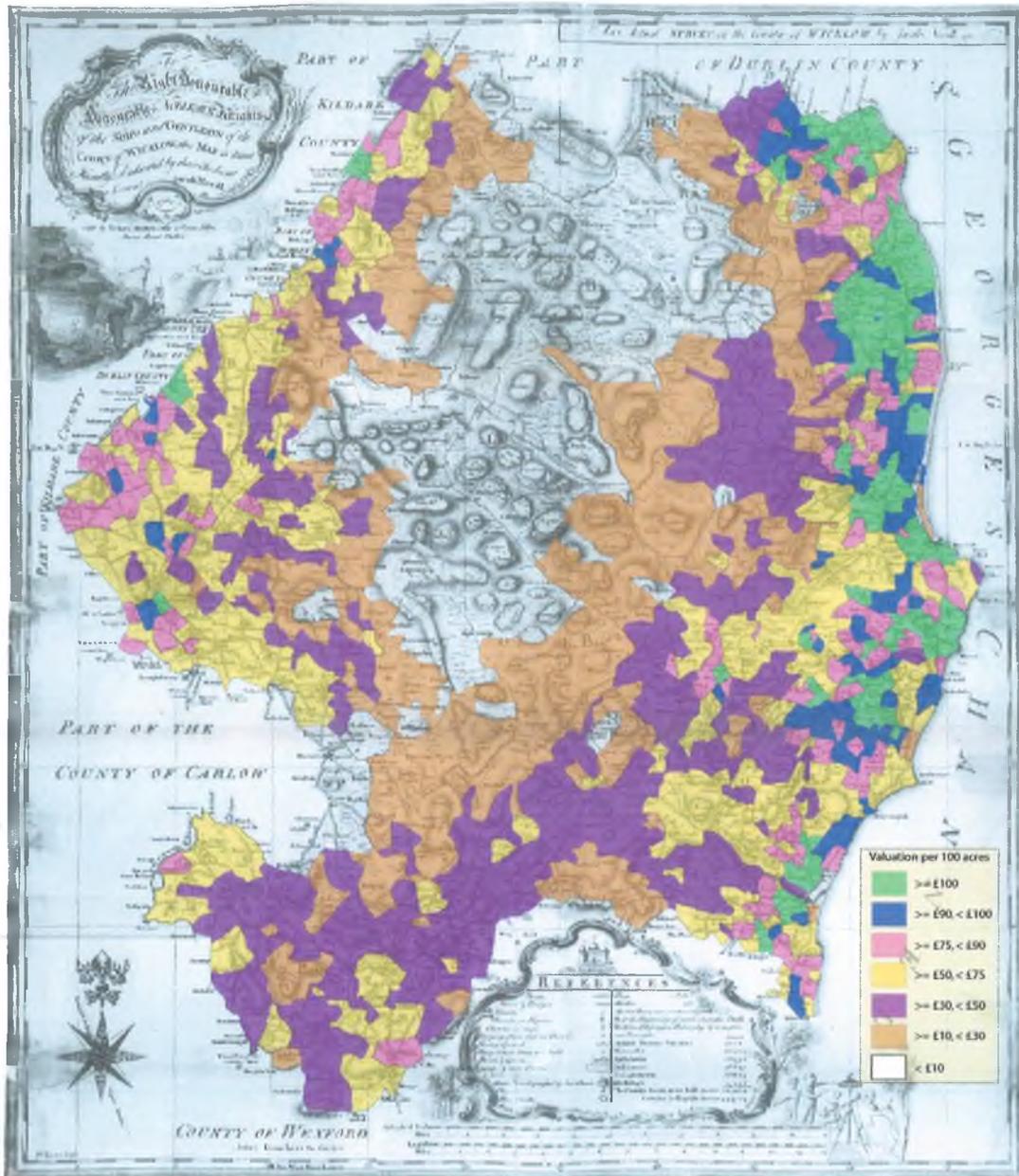


Figure 17 – Griffith's *General valuation of Wicklow*, superimposed on Nevill's 1760 map of the county.

Note: although Nevill's county map pre-dated Griffith's valuation by almost a century, nonetheless the valuation is likely a reasonable guide to land-quality in most of the county in the eighteenth century.

The most valuable land in the county (green on the map) was concentrated in the north-eastern corner of the county, stretching from Bray to Dunganstown parish, south of Wicklow town. Parish valuations were particularly high in the

lowland parts of the adjacent, north-eastern parishes of Bray, Delgany, Kilcoole and Newcastle. Further south, along the coast, land valuations, while rarely reaching the levels in the north-east, remained high, particularly in parts of Redcross, Ennereilly, Kilbride and Arklow parishes. It was relatively rare for townland land valuations to reach £1 per acre south of Dunganstown parish, with the lands in the immediate vicinity of Arklow being the only notable exception.

Elsewhere within the county land valuations were lower, reflecting the productive capacity of the heavier clay soils. In the two Talbotstown baronies valuations of £1 or more per acre, common along the east coast, were only achieved in the immediate surrounds of Blessington, Dunlavin and Baltinglass, all centres of various industrial practices. In general, in these baronies land valuations of between ten and fifteen shillings per acre predominated. Earlier it was seen that, while grain production was important in Talbotstown in the 1760s, grass and pasture was relatively more important in this region than it had been along the coastal belt.

Further south, poor land with low valuations predominated in the barony of Shillelagh, even in the vicinity of urban or industrial centres and only two townlands boasted a valuation of more than fifteen shillings per acre. Throughout most of the barony arable farming was unproductive, with land valuations failing to reach ten shillings per acre over extensive areas. Despite the poorer lands, however, the barony, under the ownership of an absentee, but reasonably benign, landlord had long been recognised as a place where tenants' improvements had been enthusiastically encouraged. Bridge construction in the latter decades of the eighteenth century has all ready been noted, and the quality of the tenants housing stock was above average throughout the eighteenth century. In the 1720s the houses of the chief tenants were two-storied, substantial dwellings, many of which had been slated, and a century later, Edward Wakefield noted that the houses on Fitzwilliam's estate are 'by far the best and the most comfortable I have seen in Ireland'.¹⁷⁷ His suggestion that priority is given to the sitting tenant when a lease falls due and Fraser's earlier commendation of the estate's policy of tenant right suggest a rare egalitarian spirit in this corner of Wicklow, at least towards the Protestant, and thus voting, freeholders.¹⁷⁸

In vast Ballinacor, in the centre of the county, devoid of people, agriculture and industry, land valuations were extremely low, often typically failing to reach one shilling per acre. In forty-three townlands in or bordering Ballinacor, covering almost 70,000 acres, land valuations in post-Famine Wicklow failed to reach this extremely low level. During the eighteenth century, the occasional isolated grain or grass plots break the barren monotony of Jacob Nevill's depiction of central Wicklow, although the landowners in the uplands stubbornly resisted any development or settlement opportunities, until mining activities were commenced during the latter years of the eighteenth century. This is, of course, unsurprising. Land improvement, drainage and reclamation were costly processes, which was unlikely to realise profits for a considerable period, if at all. In the aftermath of the defeat of the 1798 Rebellion proposals for the reclamation of the uplands were propounded, involving the settling of disbanded troops along the course of the Military Road, but apathy on the part of the Dublin archbishopric thwarted the plan.¹⁷⁹ Around Carysfort, eastern Derrylossary and in patches near Glendalough Nevill shows areas of grain production – typically rye and oats¹⁸⁰ – and in the settled booleying and transhumance was practiced during the summer months.¹⁸¹ Only a few areas of woodlands are shown in the uplands, too, although Arnold Horner has recently speculated that an old iron-works, located at Shranamuck near Kippure, in the north of the barony, suggests 'both woodlands and human activity at a height of 400 metres'.¹⁸²

Conclusion

This chapter has outlined some of the changes that were occurring to the human landscape within the Wicklow region during the seventeenth and eighteenth centuries in the light of an expanding population, and of the growth of new industries, especially in the west and the south of the county. At the Restoration, County Wicklow had a considerable infrastructural deficit and routes across the mountains, linking the west of the county with the coast, were conspicuously lacking. The effect of this was that the various regions within the county were distinctive, and were often more closely linked with the economies and infrastructures of adjacent areas in neighbouring counties, than with other regions of Wicklow, from which they were physically separated by the mountains.

Although this situation was ultimately to change during the eighteenth century, it was, nonetheless, long-lasting. Herman Moll's and Jacob Nevill's surveys of the county (figures 8 and 9) both confirm the difficulties involved in travelling from east to west, and even by 1760 there was only one east-west route which Nevill considered worthwhile to detail on his map. By the end of the century, however, a number of additional east-west routes had been constructed (figure 12), although travelling any of them was, at best, challenging.

Industrial development was the primary impetus for these belated infrastructural improvements. During the eighteenth century successful attempts to introduce linen and cloth-manufacturing industries in the region had fostered both urbanisation and an improved communications infrastructure. Commencing in the south of the county, by the 1720s at the latest, and later in the west, at Baltinglass, Dunlavin, Kiltegan and elsewhere, landlord-inspired schemes succeeded in constructing an impressive variety of industries, providing welcome employment for many. These new industries required access to markets, however, and the new routes across the mountains were constructed to link the emerging industrial centres with the harbours at Wicklow and Arklow, and through them, with an expanding English marketplace.

A second typical consequence of industrial development is urbanisation, and this was also evident in Wicklow during the eighteenth century. The most obvious example of this was the construction of Stratford, a new, modern, industrial town, beginning in the 1780s, but more important was the progressive expansion of Arklow during the closing decades of the eighteenth century. That town was strategically positioned to benefit from industrial developments elsewhere, and many of the main infrastructural improvements after 1760 were focussed on improving access to the town, by both land and sea. As a consequence, Arklow expanded rapidly, to emerge as the principal population centre in the county, at least by the 1820s.

In spite of the twin impacts of developing industries and improving infrastructures, however, Wicklow's primary urban centres remained small in comparison to the principal towns in the neighbouring counties, and the county remained substantially rural. Hence, as the eighteenth century progressed, the

narrow corridors of habitable land circling the mountains became increasingly crowded, with the majority of rural inhabitants facing a perennial struggle to eke out a miserable existence on tiny holdings. The essential elements of Wicklow's population history during the period between the Restoration and the Great Famine will be outlined in the following chapter.

References, chapter 1

¹ John Prendergast, *The Cromwellian settlement in Ireland* (London, 1865), pp 133-4.; Arnold, *The Restoration land settlement in County Dublin*, p. 144.

² Prendergast, *Cromwellian settlement*, p. 134.

³ Similar attitudes towards the natives of Ulster facilitated the maintenance of Catholic enclaves in even the most heavily settled areas of Ulster, including in north-east Antrim and south Down. In 1812, Wakefield observed that 'the protestant never pays so much rent as the Roman Catholic; and he will not hire land unless he sees a probability of a suitable maintenance for himself and his family. On the other hand, the Catholic looks only to a bare existence' (Wakefield, *Account of Ire.*, ii, p. 380).

⁴ Observations made upon the Rt Honble the Lord Malton's estate in Ireland (N.L.I, MS 6054) (hereinafter Malton estate survey, 1729).

⁵ Malton estate survey, 1729 (N.L.I. MS 6054), p. 15

⁶ It was land rather than topography that was of principal concern to the surveyors, and, thus, only occasionally evidence of cultural landscapes, with the exception of townland boundaries, is presented, to break the monotony of confiscated land acreages. Castles and large houses, typical features of Protestant settlement, appear reasonably regularly, and churches less so, but towns are either not indicated, or represented by just a handful of houses. Infrastructure and communications routes are rare.

⁷ Down Survey Maps, The barony of Newcastle in the County of Wicklow; The halfe barony of Rathdowne in the County of Wicklow (N.L.I., microfilm p. 7385).

⁸ Down Survey Maps, The barony of Newcastle in the County of Wicklow (N.L.I., microfilm p. 7385).

⁹ Charles Price, *A correct map of Ireland* (London, 1711) (hereinafter cited as Price, *Map of Ireland*); Herman Moll, *A new map of Ireland* (Dublin, 1714).

¹⁰ Herman Moll, *A set of twenty new and correct maps of Ireland, with the great roads and principal cross roads, shewing the computed miles from town to town; very useful for all gentlemen that travel to any part of that Kingdom* (London, 1728).

¹¹ Price, *Place-names of County Wicklow*, vii, p. xi.

¹² Price's map (1711) also indicated distances along roads (Price, *Map of Ireland*). Outside of Wicklow, spectacular sights are also highlighted, including visual presentations of the Giant's Causeway and St Patrick's Purgatory.

¹³ Peter O'Keefe and Tom Simington, *Irish stone bridges, history and heritage* (Dublin, 1991), p. 47 (hereinafter cited as O'Keefe and Simington, *Irish stone bridges*). In fact, 30 bridges (road crossing a river) are identified, including the bridge at Bray, which spanned the county boundary.

¹⁴ O'Keefe and Simington suggest that the absence of a road linking Rathdrum and Arklow indicates that 'there was no road from Arklow to Woodenbridge and the Meetings'. It seems doubtful, however, that travel from Rathdrum to Arklow would require the substantial detour through Aughrim which is shown on Moll's map (O'Keefe and Simington, *Irish stone bridges*, p. 241).

¹⁵ William Wilde (ed.), 'Memoir of Gabriel Beranger, and his labours in the cause of Irish art, literature, and antiquities from 1769 to 1780' in *R.S.A.I. Jn.* ii, 4th series (1872-3), p. 446 (hereinafter cited as Wilde (ed.), 'Memoir of Gabriel Beranger').

¹⁶ Errors made in one map can, therefore, often be observed cascading through subsequent generations of maps and surveys. John Rocque's *Map of Ireland*, for instance, replicates the clearly inaccurate barony boundaries on Moll's map in his publication, four decades later John Rocque's *A map of the kingdom of Ireland* (London, c. 1760) (hereinafter cited as Rocque, *Map of Ireland*).

¹⁷ John Rocque's c. 1760 *Map of Ireland* provides little additional detail for County Wicklow, although, importantly, it does show a handful of east-west routes, which Moll had not shown on his chart. In the north-east, a route through Delgany and another through Kiltimon link the Dublin-to-Rathdrum and Dublin-to-Wicklow roads and, further to the south the first impression of a cross-mountain road is shown, providing access from west Wicklow to Glendalough. It is doubtful if these routes represent road-construction in the first half of the eighteenth century, however, and they were probably in place at the time of Moll's map, but were not shown. Further evidence on the quality of the mid-century road network can be seen in the west of the county,

where Rocque also shows a north-south route, linking Corkbeg (Cock brook) with Sheskin (Seskin). No route linking these two regions exists today, and any such link road must have crossed Cavanagh's Gap, to the east of Lobawn Mountain. Today, while roads run southwards to the north of Cavanagh's Gap and northwards to the south of the gap, there remains four kilometres of inaccessible countryside, between the two termini. On modern Ordnance Survey maps Cavanagh's Gap is not even marked as a walking route, so any traces of this road have now disappeared. That it did register for inclusion on Rocque's map clearly suggests that the quality of some of the road network was highly dubious, and indicates that many of these routes were often likely little more than rough trackways.

¹⁸ Except the boundary between Rathdown and Ballinacor, which remained ambiguous even as late as Richard Griffith's *General valuation*, in the 1850s.

¹⁹ An act for the encouragement of tillage, and rendering the carriage of corn to the city of Dublin less expensive (17 and 18 George III, c. 34, sect. 1 (*Stat. Ire.*, xi, pp 222-3)).

²⁰ Thomas Radcliff, *A report of the agriculture and livestock of the County of Wicklow, prepared under the direction of the Farming Society of Ireland* (Dublin, 1812), pp 34-40 (Radcliff, *Report on agriculture and livestock of Wicklow*).

²¹ Topographical and statistical returns from various respondents sent to Walter Harris and Physico Historical Society, 1745 (Armagh Public Library, MS KI II 14), survey 2, f. 2; O'Flanagan (ed.), *O.S. letters, Wicklow*, pp 109-10.

²² F. H. Aalen, Kevin Whelan and Matthew Stout (ed.), *Atlas of the Irish rural landscape* (Cork, 1997), pp 70, 72, 74 (maps).

²³ A century and a half previously, when Gaelic tribes were firmly located in the mountains, corn was grown by them in the mountainous regions (*Cal. S. P. Ire.*, 1600-1, p. 178).

²⁴ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, f. 12).

²⁵ Physico Historical Survey, c. 1740, Leinster summary (Armagh Public Library, MS KI II 14).

²⁶ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, f. 7).

²⁷ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, ff 7, 12).

²⁸ William Wilson, *The post-chaise companion: or, traveller's directory through Ireland* (2nd ed., Dublin, 1786), pp 270, 279, 292 (hereinafter cited as Wilson, *Post-chaise companion*, 2nd ed.).

²⁹ David Butler, *The Quaker meeting houses of Ireland* (Dublin, 2004), pp 89-91. Butler also notes that there had been a meeting at Ballinaclesh in the early eighteenth century but it had closed prior to 1751 (*ibid.*, p. 24). The meeting house at Ballykean was open by 1716, and the one at Blessington was open by 1710. Another meeting house may have been located near Arklow (*ibid.*, pp 30-1, 68).

³⁰ Such was the case at Ballymurrin, near Wicklow town (*An introduction to the architectural heritage of County Wicklow* (n.p., 2004), p. 11, fig 5).

³¹ *The census of Ireland for the year 1861*, pt iv: *Reports and tables relating to the religious professions, education, and occupations of the people*, vol. i [3204-III], H.C. 1863, lix, I, p. 199

³² *First report of the commissioners of public instruction, Ireland*, H.C. 1835 (45), xxxiii, pp 30b, 32b, 44b, 56b, 62b, 64b, 84b, 92b, 94b, 96b, 98b, 102b, 104b, 106b, 112b, 114b, 124b, 128b, 130b (cited in text as *Comm. of public instruction, Ire., first report*). Furthermore, half of all the dissenting Protestants were living in or near Stratford (*ibid.*, p. 56b).

³³ The Lane Poole papers record the number of Protestant families in the union of Wicklow in 1766 at 255 and the number of Papist families at 843 (Stanley Lane Poole papers (N.L.I. MS 8818, folder 5, loose sheet entitled Parl. return, Parish of Wicklow, 1766)) but in another abstract in the same ms., the number of Protestant families is recorded at 254, including 4 quakers. The names of the four quakers are given as Eliz^l Scully, Alsoln Pitts, Widow Thomas and Kiriah Doolittle (*ibid.*, folder 5, f. 26).

³⁴ 1766 religious census returns (R.C.B. Lib., MS 37, ff 7-8); Lane Poole papers (N.L.I., MS 8818, folder 5, f. 23).

³⁵ The Society was established on 6 February 1734, for the purpose of providing a Protestant education to Irish Catholics (Kenneth Milne, *The Irish Charter Schools, 1730-1830* (Dublin, 1997), p. 23-4 (hereinafter cited as Milne, *The Irish Charter schools*)).

³⁶ Milne, *The Irish Charter schools*, p. 348.

- ³⁷ Milne, *The Irish Charter schools*, p. 347; G. N. Wright, *A guide to the County of Wicklow* (London, 1822), p. 85 (hereinafter cited as Wright, *Guide to Wicklow*).
- ³⁸ In the late 1720s another school was located at Ballinglen (Moland's survey of Malton estate (N.L.I. MS 22,017, survey section, f. 17)).
- ³⁹ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, ff 7, 11); Moland's survey of Malton estate (N.L.I. MS 22,017, maps and reference section, ff 7-8v, 10-11v). Killinure was located on 9:3:0 acres and Coolroe on 9:1:20 acres (ibid.).
- ⁴⁰ Moland's survey of Malton estate (N.L.I. MS 22,017, survey section, f. 9v, 13v).
- ⁴¹ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, ff 2, 5).
- ⁴² Milne, *The Irish Charter schools*, p. 25.
- ⁴³ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, f. 7).
- ⁴⁴ Rockingham estate survey, 1729, p. 17.
- ⁴⁵ 28 Henry VIII, c. 15, sect. 9 (*Stat. Ire.*, i, pp 125-6); 12 Elizabeth, c. 1 (ibid., pp 361-2) specified that a free school be maintained in every diocese.
- ⁴⁶ Delgany vestry book, f. 9. In 1713 Thomas Friend was allocated a salary for keeping an English school in the parish (ibid., f. 63v).
- ⁴⁷ Henry Rooke, *Gleanings from the past: diocese of Glendalough, parish of Wicklow, town of Wicklow* (Dublin, 1895), p. 19 (Rooke, *Gleanings from the past*).
- ⁴⁸ Vestry meeting, 25 January 1736 (Bray vestry book, book 1 (R.C.B. Lib., MS P. 580.1.1, f. 13)); Richard Dan, the child of Barnabas, the schoolmaster, was baptised at Rathdrum on 25 August 1743 (Rathdrum parish registers, book 1, f. 17).
- ⁴⁹ 'Report on the state of popery in Ireland, 1731, diocese of Dublin' in *Archiv. Hib.*, iv (1915), pp 134-6, 154-5 (hereinafter cited as 'Report on state of popery, 1731, Dublin').
- ⁵⁰ 'Report on state of popery, 1731, Dublin', p. 155.
- ⁵¹ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, f. 11).
- ⁵² Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, ff 10, 11, 12).
- ⁵³ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, f. 12).
- ⁵⁴ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, ff 4, 10); Robert Fraser, *General view of the agriculture, and mineralogy, present state and circumstances of the County Wicklow, with observations on the means of their improvement, drawn up for the consideration of The Dublin Society* (Dublin, 1801), p. 119 (hereinafter cited as Fraser, *General view of Wicklow*).
- ⁵⁵ Fraser, *General view of Wicklow*; Radcliff, *Report on agriculture and livestock of Wicklow*.
- ⁵⁶ Wakefield, *Account of Ire.*, i, p. 758.
- ⁵⁷ Fraser, *General view of Wicklow*, p. 119; Wakefield, *Account of Ire.*, p. 683.
- ⁵⁸ Fraser, *General view of Wicklow*, p. 120.
- ⁵⁹ Rolf Loeber, 'Settlers' utilisation of the natural resources' in Ken Hannigan and William Nolan (ed.), *Wicklow history and society* (Dublin, 1994), pp 267-304 (hereinafter cited as Loeber, 'Settlers' utilisation of the natural resources'; book cited as Hannigan and Nolan (ed.), *Wicklow history and society*).
- ⁶⁰ *Calendar of state papers, domestic series, 1671* (London, 1895), p. 207 (hereinafter cited as *Cal. S.P. Dom.*, 1671).
- ⁶¹ T. P. Le Fanu, 'The Royal forest of Glenree' in *J.R.S.A.I.*, xxiii (1893), p. 269.
- ⁶² Le Fanu, 'The Royal forest', p. 273. Timber was required for fuel and heat, housing and ship-building and wood-charcoal was also essential for smelting iron (ibid., p. 273). The magnificent oak woods near Shillelagh, in the south of the county, were particularly well renowned and Sir Arthur Chichester in 1608 was noting that the timber from these woods could 'furnish the King for his shipping and other uses for 20 years to come' (Chichester to Salisbury, 27 Oct. 1608 (*Cal. S.P. Ire.*, 1608-10, no. 126, p. 88)). Despite this, the woods were not plundered all that rapidly (The woods were still *in situ* in 1661 (*Cal. S.P. Ire.*, 1660-2, p. 429)).
- ⁶³ Le Fanu, 'The Royal forest', p. 274.
- ⁶⁴ *Cal. S.P. Ire.*, 1660-2, p. 412.

- ⁶⁵ *Cal. S.P. Ire., 1660-2*, p. 429.
- ⁶⁶ Loeber, 'Settlers' utilisation of the natural resources', p. 282, table.
- ⁶⁷ Hearth money roll – Co. Wicklow, 1669 (G.O. MS 667, f. 32); eight of the ten taxpayers were woodcutters (hereinafter cited as Wicklow hearth roll, 1668-9).
- ⁶⁸ *Cal. S.P. Dom., 1671*, p. 207. This represented a considerable reduction in the capacity of Wicklow port which, it will be remembered, could facilitate 500 ton ships before the Cromwellian period.
- ⁶⁹ Loeber, 'Settlers' utilisation of the natural resources', pp 279, 284; *Cal. S.P. Dom., 1671*, p. 207.
- ⁷⁰ Loeber, 'Settlers' utilisation of the natural resources', p. 283; *Cal. S.P. Dom., 1671*, p. 207.
- ⁷¹ Daniel Beaufort, *Memoir of a map of Ireland* (Dublin, 1792), map inserted between pp 10 and 11.
- ⁷² Loeber, 'Settlers' utilisation of the natural resources', p. 283; *Cal. S.P. Dom., 1671*, p. 207.
- ⁷³ Loeber, 'Settlers' utilisation of the natural resources', pp 287-8.
- ⁷⁴ Loeber, 'Settlers' utilisation of the natural resources', p. 288. In fact, Shillelagh village did not become known by its modern name until the nineteenth century, being known as Forge in prior times, and called Ironworks in the 1668-9 hearth roll (Price, *Place-names of County Wicklow*, vi, p. 339).
- ⁷⁵ Loeber, 'Settlers' utilisation of the natural resources', p. 288; Price, *Place-names of County Wicklow*, vii, p. 445 (Jacks Hole).
- ⁷⁶ Loeber, 'Settlers' utilisation of the natural resources', p. 293.
- ⁷⁷ Of course, this is not to imply that the native Irish were unaware of the potential of the raw materials in their geographic spheres, or that they were incapable of exploiting a region's natural advantages. They were, but unfortunately surviving documentary evidence is fragmentary in the County Wicklow context (Loeber, 'Settlers' utilisation of the natural resources', p. 294. Loeber has also speculated that timber production may have been continued by the native Irish following the capture of Carnew Castle in 1641 (Ibid., p. 281)).
- ⁷⁸ Price, *Place-names of County Wicklow*, vi, p. 339.
- ⁷⁹ D. Cowman, 'The mining community at Avoca, 1780-1880' in Hannigan and Nolan (ed.), *Wicklow history and society*, p. 761 (hereinafter cited as Cowman, 'Mining community at Avoca').
- ⁸⁰ Cowman, 'Mining community at Avoca', p. 761; Grenville Cole, *Memoir of localities of minerals of economic importance and metalliferous mines in Ireland* (3rd ed., Dublin, 1998), p. 35..
- ⁸¹ Fraser, *General view of Wicklow*, p. 17.
- ⁸² Fraser, *General view of Wicklow*, p. 16.
- ⁸³ Fraser, *General view of Wicklow*, p. 107.
- ⁸⁴ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, f. 4).
- ⁸⁵ Fraser, *General view of Wicklow*, pp 16, 108.
- ⁸⁶ Loeber, 'Settlers' utilisation of the natural resources', p. 289.
- ⁸⁷ Fraser, *General view of Wicklow*, p. 108.
- ⁸⁸ *The mines of Wicklow* (London, 1856), p. 23 (hereinafter cited as *Mines of Wicklow*).
- ⁸⁹ Wright, *Guide to Wicklow*, p. 98.
- ⁹⁰ Fraser, *General view of Wicklow*, pp 19-20.
- ⁹¹ *The post chaise companion or travellers directory through Ireland* (4th ed., Dublin, n.d.), col. 408. John Carr notes that 'the shepherd left his flock, the husbandman his field, the manufacturer his loom, thousands deserted their homes and occupations, all rural employment was at a pause; and, had not the harvest been previously gathered in at the time of the discovery, a famine must have followed' (John Carr, *The stranger in Ireland* (1806 reprint of orig. ed., Philadelphia, 1806), p. 107 (hereinafter cited as Carr, *Stranger in Ireland*)).
- ⁹² Henry Bayly, 'Parish of Arklow' in Mason, *Parochial survey of Ire.*, ii, p. 58 (hereinafter Bayly, 'Parish of Arklow').
- ⁹³ A deerpark was also located at Ballybeg, although it is not depicted on Jacob Nevill's *Map of Wicklow* (Moland's survey of Malton estate (N.L.I., MS 22,017, f. 17 of survey)).
- ⁹⁴ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, f. 9) for Blessington's deerpark.

- ⁹⁵ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, f. 2); Radcliff, *Report on agriculture and livestock of Wicklow*, p. 208. The race course was built on the instruction of the fourth Viscount, who held the title from 1788 until 1809.
- ⁹⁶ Physico Historical Survey, c. 1740, County Wicklow, survey 1 (Armagh Public Library, MS KI II 14, f. 4v). Russborough House, the seat of the earl of Milltown, was reputedly built from Golden Hill granite in the 1740s. The skills involved in specialised rural industries such as mining and quarrying were passed on through the generations, which helped maintain and secure employments alternative to various agricultural pursuits, but by the commencement of the nineteenth century dwindling supplies from these quarries forced their closure. That some of the quarrymen chose to migrate a short distance southwards to develop a new green field quarry at Ballyknockan rather than emigrate suggests the sustained importance of the quarrying enterprise to the local economy (Séamas Ó Maitiú and Barry O'Reilly, *Ballyknockan, a Wicklow stonecutters' village* (Dublin, 1997), pp 3, 4-5, (hereinafter cited as Ó Maitiú and O'Reilly, *Ballyknockan*)).
- ⁹⁷ Ó Maitiú and O'Reilly, *Ballyknockan*, pp 1-14, 19-21, 28-37.
- ⁹⁸ Contour road books, such as Harry Inglis, *The 'Contour' road book of Ireland* (Edinburgh, 1908-9) can provide useful impressions of the difficulties involved in road travel (hereinafter cited as Inglis, *'Contour' road book of Ireland*).
- ⁹⁹ Wakefield, *Account of Ire.*, i, p. 657.
- ¹⁰⁰ Carr, *Stranger in Ireland*, pp 93-4; Wakefield, *Account of Ire.*, i, p. 660.
- ¹⁰¹ Vestry meetings, 13 November 1758 and 21 April 1760 (Rathdrum vestry book, book 1 (R.C.B. p. 377.5.1, pp 5, 13)).
- ¹⁰² Note that between from Blindwood to Barranisky Crossroads the route in Nevill's time did not follow the modern route to the east of the hill at Ballinvally, but instead travelled along the western route – today part trackway – through Ballinvally Upper.
- ¹⁰³ An act for the encouragement of tillage, and rendering the carriage of corn to the city of Dublin less expensive (17 and 18 George III, c. 34, sect. 1 (*Stat. Ire.*, xi, pp 222-3)).
- ¹⁰⁴ Wilde (ed.), 'Memoir of Gabriel Beranger' in *R.S.A.I. Jn.* ii, 4th series (1872-3), p. 446.
- ¹⁰⁵ Lane Poole notebook (N.L.I. MS 7227, pages unnumbered (63rd, 65th page in notebook)). Ardanairy was authorised in April 1737, and Pennycomequick in 1738.
- ¹⁰⁶ Lane Poole notebook (N.L.I. MS 7227, pages unnumbered (56th, 58th and 61st page in notebook)). Aughrim bridge authorised on 4 March 1717, Clara in 1731 or 1732 and Newrath authorised in 1735.
- ¹⁰⁷ Lane Poole notebook (N.L.I. MS 7227, pages unnumbered (53rd page in notebook)), 6 April 1715.
- ¹⁰⁸ Wilde (ed.), 'Memoir of Gabriel Beranger' in *R.S.A.I. Jn.* ii, 4th series (1872-3), p. 446.
- ¹⁰⁹ Inglis, *'Contour' road book of Ireland*, p. 196, note 246 (p. 197 for road profile).
- ¹¹⁰ It is notable that the present-day route through the Wicklow Gap follows this mid-eighteenth century route only in part. Nevill shows the route following the paved part of St Kevin's Road, east from Glendalough, before slipping through the Gap, from whence it following a path to the south of the present road before rejoining the present route to the west of King's River, at Garryknock Bridge. A short distance further west the road diverged southwards again, travelling into Hollywood to the south of King's River. Today, part of this route remains trackway, while extended segments are inaccessible.
- ¹¹¹ *Mines of Wicklow*, p. 3.
- ¹¹² Parts of the east-west oriented routes have changed considerably since Nevill's map was published, and in many cases all trace of the abandoned segments of road have now disappeared. This can surely be viewed as an indication of the quality of the contemporary road surface, because if the structures were of solid construction their course would surely still be evident.
- ¹¹³ Inglis, *'Contour' road book of Ireland*, p. 196, note 246.
- ¹¹⁴ It is shown as 'Wicklow Road' on George Taylor and Andrew Skinner, *Taylor and Skinner's maps of the roads of Ireland*, surveyed 1777, (Dublin, 1778), p. 138 (hereinafter cited as Taylor and Skinner, *Maps of the roads of Ireland*) and the western part of the road is shown on Alexander Taylor's 1783 *Map of County Kildare* as the 'Road to the Pass called Sally Gap', although the road is incorrectly shown to ford the River Liffey south of Kilbride Hill.
- ¹¹⁵ Part of this road is now submerged under the reservoir at Pollaphuca.
- ¹¹⁶ Today this third class roadway continues eastwards, joining with the Sally Gap – Kilbride road near Ballysmuttan Bridge.

¹¹⁷ Harry Inglis, *The "Royal" road book of Ireland* (Edinburgh, 1905), p. 20.

¹¹⁸ An act for the making of narrow roads through the mountainous unimproved parts of this kingdom (11 and 12 George III, c. 20, sect. 1 (*Stat. Ire.*, x, p. 260)).

¹¹⁹ 5 George III, c. 14 (*Stat. Ire.*, ix, pp 324-341). This statute repealed 11, 12 and 13 James I, c. 7, the act which initially introduced the statutory requirement and placed the responsibility for the repair of the roads on the county's grand jury (sect. 2).

¹²⁰ An Act to alter and amend the laws for the repair of highways (33 George II, c. 8, sect. 16 (*Stat. Ire.*, vii, pp 669-70)).

¹²¹ An Act for more effectually amending the publick roads (5 George III, c. 14, sect. 6 (*Stat. Ire.*, ix, p. 328)).

¹²² An Act for the making of narrow roads through the mountainous unimproved parts of this kingdom (11 and 12 George III, c. 20, sect. 1 (*Stat. Ire.*, x, pp 260-1)).

¹²³ After 1727 newly constructed highways had to be 'at least thirty foot broad in the clear' and old roads which were narrower than twenty-one feet could be widened by the grand jury (An act for explaining and amending several laws made for amending the highways and roads of this kingdom; and for the application of the six days labour (1 George II, c. 13, sect. 19 (*Stat. Ire.*, v, p. 247))).

¹²⁴ 33 George II, c. 8, sect. 16 (*Stat. Ire.*, vii, pp 672-3). See also, 13 and 14 George III, c. 32 (*Stat. Ire.*, x, pp 511-39), 17 and 18 George III, c. 22 (*Stat. Ire.*, xi, pp 197-202), 23 and 24 George III, c. 42 (*Stat. Ire.*, xii, 716-25).

¹²⁵ The representation of only part of the road through the Sally Gap has already been noted. Furthermore, occasionally mills and chapels, such as those shown at Killpatrick and Polafoca, north of Arklow, or agricultural practices, such as at Clone, west of Enniskerry, are shown, which have no corresponding access routes.

¹²⁶ Taylor and Skinner, *Maps of the roads of Ireland*, pp 138, 147. John Rocque's *A map of the county of Dublin, divided in baronies* (1762) shows the main road to Enniskerry and Powerscourt still lying to the east of The Scalp, so that new route must have been constructed some time between 1762 and 1777.

¹²⁷ This road was not complete by 1786 (Wilson, *Post-chaise companion*, 2nd ed., p. 279).

¹²⁸ Wilson, *Post-chaise companion*, 2nd ed., p. 280.

¹²⁹ Wilson, *Post-chaise companion*, 2nd ed., p. 279.

¹³⁰ William Wilson, *The post-chaise companion: or traveller's directory through Ireland* (3rd ed., Dublin, 1803), p. 410 (hereinafter cited as Wilson, *Post-chaise companion*, 3rd ed).

¹³¹ Wilson, *Post-chaise companion*, 3rd ed., p. 411. The road climbed from less than 150 metres above sea level at the eastern end of the glen to almost 690 metres at its highest point (altitudes from Ordnance Survey *Discovery Series*, map 62 (1st ed., 1995).

¹³² Wilson, *Post-chaise companion*, 3rd ed., p. 411.

¹³³ *Mines of Wicklow*, p. 18.

¹³⁴ *Mines of Wicklow*, map between pp 16 and 17.

¹³⁵ Griffith undertook his survey in 1812 (Arnold Horner (ed.), *Wicklow & Dublin Mountains in 1812* (Dublin, 2004), p. 7 (hereinafter cited as Horner (ed.), *Wicklow & Dublin Mountains in 1812*)).

¹³⁶ Horner (ed.), *Wicklow & Dublin Mountains in 1812*, p. 21.

¹³⁷ Wright, *Guide to Wicklow*, p. 139.

¹³⁸ Horner (ed.), *Wicklow & Dublin Mountains in 1812*, p. 20.

¹³⁹ Horner (ed.), *Wicklow & Dublin Mountains in 1812*, p. 21.

¹⁴⁰ *Stat. Ire.*, vii, p. 619; *ibid.*, p. 799; *ibid.*, ix, p. 6; *ibid.*, p. 267 (The total sum approved was £7,264:9:8); *Commons' jn. Ire.*, 1761-4, vii (1796), pp appendix lxxii-lxxvi, ccxxxi-ccxxxv; George Tyner, *The traveller's guide through Ireland, being an accurate and complete companion to Alexander Taylor's, Map of Ireland* (Dublin, 1794), p. 80; Wakefield, *Account of Ire.*, i, pp 627, 631.

¹⁴¹ An Act ... to improve the harbour of Arklow ... (32 George III, c. 24, sect. 2 (*Stat. Ire.*, xvi, p. 280)).

¹⁴² In the 1810s 'the boats, from the wretched state of the harbour, are liable to be damaged', and 1822 'the harbour of Arklow is very unsafe, being encompassed by sand banks, and admits only small craft' (Wakefield, *Account of Ire.*, i, p. 627; *ibid.*, ii, p. 101; Wright, *Guide to Wicklow*, p. 84.

¹⁴³ *Mines of Wicklow*, p. 11; Stephen Johnston, *Johnston's atlas & gazetteer of the railways of Ireland* (Leicester, 1997), p. 84.

- ¹⁴⁴ William Wilson, *The post-chaise companion: or, traveller's directory through Ireland* (4th ed., Dublin, c. 1815), p. 406 (hereinafter cited as Wilson, *Post-chaise companion*, 4th ed.).
- ¹⁴⁵ Wilson, *Post-chaise companion*, 2nd ed., p. 293; Wilson, *Post-chaise companion*, 4th ed., p. 427.
- ¹⁴⁶ Wakefield, *Account of Ire.*, i, p. 706, note.
- ¹⁴⁷ Wilson, *Post chaise companion*, 2nd ed., p. 265; Wakefield, *Account of Ire.*, i, p. 706.
- ¹⁴⁸ W. J. McCormack (ed.), *Memories of west Wicklow, 1813-1939: William Hanbidge and Mary Ann Hanbidge* (Dublin, 2005), p. 42 (hereinafter McCormack (ed.) *Memories of west Wicklow: Hanbidge and Hanbidge*); O'Flanagan (ed.), *O.S. letters, Wicklow.*, pp 36-7.
- ¹⁴⁹ J. Redmond, 'Notes on the parish of S.S. Mary and Michael, Rathdrum' in *Reportorium novum*, iii, no. 1, p. 195 (hereinafter cited as Redmond, 'Notes on the parish of S.S. Mary and Michael, Rathdrum').
- ¹⁵⁰ Fraser, *General view of Wicklow*, pp 262-3, note; William Nolan, 'Land and landscape in County Wicklow, c. 1840' in Hannigan and Nolan (ed.), *Wicklow history and society*, p. 680 (hereinafter cited as Nolan, 'Land and landscape in Wicklow').
- ¹⁵¹ Lewis, *Topog. dict. Ire.*, i, p. 673.
- ¹⁵² *Census Ire., 1831*, p. 114.
- ¹⁵³ *List of persons who suffered losses in their property in the County Wicklow*, p. 1; Ruan O'Donnell, *The rebellion in Wicklow, 1798* (Dublin, 1998), pp 289-90 (hereinafter cited as O'Donnell, *Rebellion in Wicklow, 1798*); idem, *Aftermath: post rebellion insurgency in Wicklow, 1799-1803*, pp 14-6. Allen's claim was the second highest in the comuty, after Downshire's.
- ¹⁵⁴ Wakefield, *Account of Ire.*, i, p. 706, note.
- ¹⁵⁵ Charles O'Hara, An account of Sligo in the eighteenth century (P.R.O.N.I., MS T/2818/19/1).
- ¹⁵⁶ Wilson, *Post-chaise companion*, 2nd ed., p. 295; *ibid.*, 4th ed., p. 429.
- ¹⁵⁷ Wilson, *Post-chaise companion*, 2nd ed., pp 263-6.
- ¹⁵⁸ 152 hearth tax taxpayers in 1668 must have equated to a population exceeding 1,000 persons, bearing in mind the likely deficiency in any taxation roll (Wicklow hearth roll, 1668-9 (N.L.I. MS G.O. 667, ff 24-5, 64-6).
- ¹⁵⁹ Bayly, 'Parish of Arklow', p. 56.
- ¹⁶⁰ Bayly, 'Parish of Arklow', p. 33.
- ¹⁶¹ Bayly, 'Parish of Arklow', pp 34, 44.
- ¹⁶² Bayly, 'Parish of Arklow', p. 55.
- ¹⁶³ Bayly, 'Parish of Arklow', pp 52-3.
- ¹⁶⁴ Bayly, 'Parish of Arklow', p. 37.
- ¹⁶⁵ Fraser, *General view of Wicklow*, p. 97.
- ¹⁶⁶ Bayly, 'Parish of Arklow', pp 37-8.
- ¹⁶⁷ Bayly, 'Parish of Arklow', p. 38.
- ¹⁶⁸ Bayly, 'Parish of Arklow', pp 37-8, 49, 55.
- ¹⁶⁹ Wakefield, *Account of Ire.*, i, p. 627.
- ¹⁷⁰ Lewis, *Topog. dict. Ire.*, i, p. 60.
- ¹⁷¹ V. T. Delany and D. R. Delany, *The canals of the south of Ireland* (Newtown Abbot, 1966), p. 18 (hereinafter cited as Delany and Delany, *Canals of south of Ireland*).
- ¹⁷² Ruth Delany, *The Grand Canal of Ireland* (2nd ed., Dublin, 1995), p. 4 (hereinafter cited as Delany, *Grand Canal*).
- ¹⁷³ Delany, *Grand Canal*, pp 21, 23.
- ¹⁷⁴ Delany, *Grand Canal*, p. 26; Delany and Delany, *Canals of south of Ireland*, p. 46..
- ¹⁷⁵ *Appendix to the first report of the commissioners appointed to inquire into the municipal corporations in Ireland, part I: southern, midland, western, and south-eastern circuits*, H.C. 1835 (27), p. 221 (hereinafter cited as *Commission for municipal corporation, first report, appendix, part I*).
- ¹⁷⁶ D. A. Beaufort, *A new map of Ireland, civil and ecclesiastical* (Dublin, 1792).
- ¹⁷⁷ Moland's survey of Malton estate (N.L.I., MS 22,017); Wakefield, *Account of Ire.*, i, p. 284.
- ¹⁷⁸ Wakefield, *Account of Ire.*, i, p. 283; Fraser, *General view of Wicklow*, p. 118.
- ¹⁷⁹ Horner (ed.), *Wicklow & Dublin Mountains in 1812*, p. 22.
- ¹⁸⁰ Physico Historical Survey, c. 1740, County Wicklow, survey 2 (Armagh Public Library, MS KI II 14, ff 7, 12).

¹⁸¹ Townland names in the uplands imply that these nomadic agricultural practices were likely to have been of ancient origin. Many of the townland names in the uplands begin with 'Bally', some of which, like Ballyknockan, are unambiguously derived from 'buaile' (Deirdre Flanagan and Laurence Flanagan, *Irish place names* (Dublin, 1994), p. 36).

¹⁸² Horner (ed.), *Wicklow & Dublin Mountains in 1812*, p. 5. Little is known about this industry, which was apparently either not in operation or not considered worthy of inclusion on Nevill's 1760 survey. By 1801 all traces of the smelting facility had disappeared, Fraser simply noting that the location was 'a place where an iron smelting furnace is said to have been formerly erected' (Fraser, *General view of Wicklow*, p. 273). Richard Griffith shows a building at Shranamuck, which may have been the remains of the furnace, but he does not mention the building in his report, even when describing the adjacent road through the Sally Gap (Horner (ed.), *Wicklow & Dublin Mountains in 1812*, p. 20). Furthermore, since Jacob Nevill's map showed neither the Sally Gap road nor extensive tree cover in the region any smelting facility can not have been large, and it is doubtful if such an industry ever even existed at all.

Chapter 2 – The population history of County Wicklow, 1660 - 1845.

In chapter one it was shown that Wicklow's infrastructure was considerably modernised during the eighteenth century, particularly during the closing two or three decades. Simultaneous with these infrastructural enhancements, the region was undergoing substantive social and demographic changes. Working backwards from the statutory censuses, this chapter examines some of the structural changes that were occurring within Wicklow's demographic profile in the two centuries following the Restoration. Primarily, it will be seen that the county's population was growing rapidly during the latter half of the eighteenth century. At the same time, however, Protestant numbers, which had risen substantially in the decades after the Restoration, stagnated during the middle years of the eighteenth century. The consequences of this decline in Protestantism, which were considerable, will be considered in part two of this thesis.

Wicklow's pre-Famine population, the evidence from the statutory censuses

THE 1813-5 AND 1821 CENSUSES

As was noted in the introduction, historians rarely make use of the data recorded in the 1813-5 census, usually considering it unreliable, although it has recently been suggested that while the population numbers may not be too accurate, the house-count figures from this census may be reasonably accurate for some areas.¹ However, as this census represented the first attempt ever undertaken by the state to count *all* the people on the island, it has an intrinsic importance, and if due care is applied, the figures from this enumeration can provide a unique insight into local populations at the beginning of the nineteenth century.

By the time the 1813-5 census was terminated, in May 1815, returns had been received for six of the seven Wicklow baronies. Three of the sets of figures (Arklow, Ballinacor and half Rathdown) had been accepted by the census commissioner, while data for the remaining three reporting baronies (Shillelagh, Talbotstown Upper and Talbotstown Lower) contained some unspecified

'incorrectness' (figure 5). A comparison between the 1813-5 figures and the equivalent figures for 1821 can provide an insight into the likely degree of regional accuracy in the earlier initiative, although it must be borne in mind that the accuracy of the latter enumeration has been convincingly questioned.² In particular, very large reputed increases in population in the eight years between 1813 and 1821 should be a cause of serious concern, although, since both censuses were conducted before the Ordnance Survey was established, even extremely large rates of population change cannot necessarily be presumed indicative of under- or over-counting as confusion over barony-borders may have resulted in areas being enumerated in the wrong barony in either of the censuses.³ Despite their failings, the 1813-5 returns, presented in table 5, imply that the population of the county was approaching 100,000 persons in 1813.

In order to derive a population estimate for the county in 1813, an estimate has been included for the defaulting barony of Newcastle, based on the population-proportions recorded in the subsequent census.⁴ The figures are enlightening (table 5). The southern baronies of Arklow, Shillelagh and Talbotstown Upper emerge as the most densely populated parts of the country, with population densities exceeding 250 persons per 1,000 acres. Nominal population densities can be misleading, however, particularly in a region which contains vast tracts of marginal lands, which typifies extensive areas of County Wicklow. In particular, much of Ballinacor barony, eastern Talbotstown Lower and western half-Rathdown and western Newcastle are infertile uplands, which were primarily suitable for non-permanent, seasonal agriculture, and were unable to support dense settlement patterns, and intensive agricultural economies.

Table 5 – 1813-5 census figures for County Wicklow, including an estimate for Newcastle barony, in italics (see footnote 4).

Barony	Area (acres)	1841-4 GVI (£)	Houses	Pop.	People per ...		% of total ...	
					house	1,000 acres	houses	people
Arklow	67,281	47,935	2,867	18,248	6.36	271	18.7	19.3
Ballinacor	152,426	30,872	3,039	18,419	6.06	121	19.8	19.5
Newcastle (est.)	52,088	32,943	<i>1,877</i>	<i>11,333</i>	<i>6.04</i>	<i>218</i>	<i>12.3</i>	<i>12.0</i>
half Rathdown	34,382	18,575	1,165	7,287	6.25	212	7.6	7.7
Shillelagh	44,349	21,203	1,971	12,122	6.15	273	12.9	12.8
Talbotstown Lower	86,858	21,462	1,869	11,250	6.02	130	12.2	11.9
Talbotstown Upper	62,510	31,279	2,534	15,783	6.23	252	16.5	16.7
Co. Wicklow	499,894	204,269	15,322	94,442	6.16	189	100.0	100.0

Source: Mason, *Parochial survey of Ire.*, iii, p. xliii; acreage from *Census Ire., 1851*, p. 366; GVI (General Valuation of Ireland, of the 1840s) from parish figures in *Dublin Gazette*, 2 June 1848, pp 585-9.

The three coastal baronies, Arklow, Newcastle and half Rathdown were all relatively heavily populated in the early nineteenth century. This eastern strip, for the most part level and fertile, and a strategic link between Dublin and the south-east, had been a focus of attention for colonists since the twelfth century, and had, by 1813, a sizeable Protestant population. For the baronies of Newcastle and half-Rathdown, the real population densities were even higher than the respective nominal figures of 218 and 212 persons per 1,000 acres suggests (table 5). If the large areas of uninhabited land in their western parts are excluded (c. 15,000 acres for half Rathdown and c. 3,000 acres for Newcastle) from the calculation then the population per 1,000 fertile acres increases to 350 persons in half Rathdown and 240 persons in Newcastle. Thus, whilst Wicklow was nominally the least densely populated county in the south-east in 1813, the county's real population density was significantly higher than the nominal densities recorded for most of the surrounding counties (table 6).

Table 6 – Population densities in south-eastern counties in 1813-5.

County	Acres	Pop. per 1,000 acres, 1813-5
Carlow	221,342	314
Meath	579,899	246
Kildare	418,436	203
Wicklow	499,894	189
Wicklow (adjusted)	c. 300,000	c. 315
Dublin		No figures for two baronies
Wexford		No figures for the county

Source: population figures from Mason, *Parochial survey of Ire.*, iii, pp xxxii, xxxiv, xxxvi, xlv; acreages from *Census Ire., 1841*, pp 4, 42, 100; *Census Ire., 1851*, p. 366. Note: the 'Wicklow (adjusted) figure excludes largely uninhabited acreage in the uplands (townlands where the population density is below 25 person per 1,000 acres).

In Wicklow in 1813, the mean household size (MHS) was exceptionally high in comparison with neighbouring counties.⁵ The reason for this is unclear, but the scarcity of land, evidenced by the high real population density (table 6), is likely to have been a principal factor. Furthermore, the county, boasting the largest proportion Protestant population outside Dublin and Ulster,⁶ was also liberally populated with gentry and strong-farmer houses, which usually boosted mean household size, through the employment of cohabiting servants. In 1801 Robert Fraser's Dublin Society survey claimed that the average number of persons per house in the county was less than 5.5, somewhat below the equivalent statistic favoured in the other contemporary county surveys,⁷ but this presumption was probably incorrect, because the 1813-5 census reported a mean household size exceeding 6.0 in all of the baronies in the county. In Arklow barony, the mean household size was recorded at an exceptionally high 6.35,⁸ although that barony included the largest urban area in the county, Arklow town, which, doubtless, boosted the figure. The contrast between the mean-household-size in Wicklow and in the surrounding counties is striking (table 7). At this time, the only county in the area exhibiting a mean household size larger than County Wicklow was County Dublin, with a figure of 6.85. However, the Dublin data included figures for the predominantly urban baronies of Donore and St Sepulchre, which had mean household sizes of 13.59 and 11.29 respectively. If these two figures are excluded the mean household size for the county falls to 6.29, which remains larger but is, nonetheless, comparable with the Wicklow statistic. No other county in the region had a mean household size approaching 6.0.

Table 7 – Mean household size for eastern counties, calculated from 1813-5 census data.

County	Inhabited houses	Families	Population	MHS
Co. Carlow	12,090	12,427	69,566	5.75
Co. Kildare	14,564	15,225	85,133	5.85
Co. Wicklow (incl. est. for Newcastle)	15,322	N/A.	94,442	6.16
Co. Wicklow (excl. est. for Newcastle)	13,445	N/A.	83,109	6.18
Co. Dublin (pt. of, incl. suburbs)	17,430	N/A.	119,438	6.85
Co. Meath	25,921	26,184	142,479	5.50
Co. Dublin (pt. of, excl. suburbs)	15,830	N/A.	99,527	6.29

Note: the Carlow, Kildare and Meath figures were accepted by Mason as accurate as were the Dublin figures (the Dublin data do not include Castleknock and Nethercross baronies, both of which, apparently, failed to return any figures). The reputed MHS in Wicklow (excluding Newcastle barony) was 6.18, and if the estimates for Newcastle are included (table 5) the MHS remains exceptionally high. No figures were reported from County Wexford.

This unprecedented mean household size may lead to speculation that the 1813-5 figures for County Wicklow were incorrect, but a comparison between the 1813-5 figures and the data from subsequent pre-Famine censuses confirms many of the trends implied by the initial enumeration, although some problems remain. The 1821 census reported the population of County Wicklow at more than 110,000 and the 1821 population figures for all baronies exceed the populations reported by the 1813-5 census. However, earlier it was noted that the 1813-5 population estimate for the county, if an estimate is included for Newcastle barony, was approximately 94,500 (table 5), which would suggest a mean rate of population increase between 1813 and 1821 of approximately 2.0 per cent. This implies, according to the categorisations of mean annual population increase presented in table 2, that the county was experiencing a high to very high rate of population growth, between those two enumerations. While this may lead to suspicions that the 1813-5 figures are deficient, particularly in the light of ‘the last great subsistence crisis in the Western World’,⁹ which was widely experienced throughout the Northern Hemisphere in 1816, these rates of growth remain broadly in line with the equivalent statistics from neighbouring counties and are do not diverge greatly from the reputed contemporary rates of growth in other European countries (see appendix 4 for comparable figures for England, Scotland, France and Norway).

Table 8 – Population of Wicklow in 1821.

Baronies	Area (acres)		Houses	Fams	FPH	Pop.	MHS	PPF	Pop. per 1,000		% ann. inc. (1813-21)
	total	Hab.							acres	Hab. acres	
Arklow	67,281	64,000	3,085	3,549	1.15	20,420	6.62	5.75	304	319	1.41
Ballinacor	152,426	53,000	3,475	3,635	1.05	21,383	6.15	5.88	140	403	1.88
Newcastle	52,088	44,000	2,112	2,214	1.05	13,298	6.30	6.01	255	302	2.00
half Rathdown	34,382	21,000	1,450	1,664	1.15	9,290	6.41	5.58	270	442	3.10
Shillelagh	44,349	42,000	2,248	2,438	1.08	13,876	6.17	5.69	313	330	1.70
Talb. Lr	86,858	40,500	2,067	2,202	1.07	13,703	6.63	6.22	158	338	2.50
Talb. Ur	62,510	38,500	2,852	3,345	1.17	18,797	6.59	5.62	301	488	2.21
Co. Wicklow	499,894	303,000	17,289	19,047	1.10	110,767	6.41	5.82	222	366	2.01

Source: *Census Ire., 1821*, p. 130. Note: FPH represents the mean number of families per house; PPF represents the number of people per family; hab. represents habitable acreage; ann. inc. is annual increase. The habitable acreage is the approximate area of the baronies, excluding the largely uninhabited uplands.

The barony figures reported by the 1821 census are presented in table 8, and table 9 shows the proportionate increase in population recorded in the three eastern counties – Carlow, Meath and Kildare – for which Mason had pronounced the 1813-5 census data to be ‘correct’. When compared with the increases recorded in these three counties, Wicklow’s reputed rate of population growth in the eight years – 17.3 per cent (based on the census estimate of *c.* 94,500 (table 5)) seems neither exceptional nor incredulous.

Table 9 – Proportionate change in population levels between the 1813-5 and 1821 censuses for various south-eastern counties.

County	Pop. (1813-5)	Pop. (1821)	% inc. (8 years)	Ann. rate of inc.
Carlow	69,566	78,952	13.5	1.6%
Kildare	85,133	99,065	16.4	1.9%
Meath	142,479	159,183	11.7	1.4%
Wicklow (1813 est.)	94,442	110,767	17.3	2.0%

Source: Mason, *Parochial survey*, iii, p. xliii; *Census. Ire., 1821*, p. 130.

However, a complicating factor in this regard revolves around the degree of inaccuracy in the 1821 returns. That census is unlikely to have scrupulously accurate, and one estimate has suggested that as many as 400,000 people (*c.* 5.8 per cent) may have omitted from the national population-total.¹⁰ A deficiency of this order nationally would imply that the 1821 population estimate for County Wicklow must have been deficient to some degree. It was seen in chapter one that despite the varied infrastructural improvements effected during the latter half of the eighteenth century travel within the county remained challenging, and while

parts of County Wicklow were relatively accessible, large areas of the county, particularly in Ballinacor and in the eastern parts of Talbotstown Lower, were thinly populated, upland areas, bereft of good-quality communications routes. It is surprising, therefore, to see that Ballinacor was one of the baronies which presented returns that were acceptable to Mason. As was noted in the introduction, however, Mason gave no indication of the criteria he used to pass judgement on the quality of the returns; it may have been the case that superficial criteria were applied, and it is certain that remote, upland and relatively thinly populated Ballinacor is the region within Wicklow which would have presented the greatest physical challenges for enumerators.¹¹ Thus, if the county population had been underestimated by the 1821 census by (say) some five thousand people (if Lee's hypothesised 5.8 per cent deficiency was reflected in County Wicklow then the deficiency would have been *c.* 6,500 people)¹² then the reputed population increase between 1813 and 1821 would be stretching the upper limits of credibility.

The mean annual rate of population increase required, for example, to increase the county's population from the approximate figure of 94,500 in 1813 (table 5) to approximately 116,000 (110,767 + deficiency of *c.* 5,000) by 1821 would have been a highly improbable 2.7 per cent. This is clearly higher than any of the contemporary rates in other countries (appendix 4), at a time when some demographic stresses were being experienced. Clearly, therefore, the 1821 census figures (deficient as they may be) seriously challenge the 1813-5 census figures, and it seems probable that the 1813 population estimate was somewhat low.

It was probably not drastically deficient, however. During the 1810s the population explosion which had commenced in Ireland during the latter half of the eighteenth century had still not run its course and the annual rate of increase in the national population between 1791 and 1821 remained impressive (appendix 4). The rate of population growth in the 1810s in County Wicklow was also certainly high, mirroring both the national trend, and the experiences in other European countries. It will be argued later in this chapter that an adjusted county estimate for the 1813 population of *c.* 97,000 appears reasonable, and would imply a mean annual growth rate lying between *c.* 1.6 per cent (for an 1821 population of

110,000) and 2.2 per cent (for an 1821 population of 116,000) in the eight years between 1813 and 1821.

The regional growth rates, shown in table 8, also merit examination, and provide further evidence that the 1813-5 census may be at least tolerably accurate. As can be seen, based on the unadjusted figures returned by the censuses, the annual rate of population-growth between 1813 and 1821 ranged from a low of 1.4 per cent in Arklow, to an astonishing rate of 3.1 per cent in Rathdown, and extremely rapid population growth was also reputedly being experienced in Talbotstown Lower (2.5 per cent) and Talbotstown Upper (2.2 per cent). Interestingly the baronies of Arklow and Rathdown were two of the three baronies for which Mason had expressed satisfaction with the figures. While an annual growth rate exceeding 3 per cent is admittedly high, such growth rates are not impossible, particularly in the short term and when the population level is low, as was the case in the 1810s in Rathdown. Furthermore, in some instances there is a clear continuity between the data reported by both censuses (table 10). In terms of nominal population densities, for example, the rank order of the baronies remained the same between 1813-5 and 1821, which would not be anticipated if the earlier census had been poorly conducted.

Table 10 – Nominal population densities in 1813-5 and 1821

Barony	Population per 1,000 acres	
	1813-5 (rank order)	1821 (rank order)
Arklow	271 (2)	304 (2)
Ballinacor	121 (7)	140 (7)
Newcastle (est. for 1813)	218 (4)	255 (5)
Half Rathdown	212 (5)	270 (4)
<i>Shillelagh</i>	273 (1)	313 (1)
<i>Talbotstown Lower</i>	130 (6)	158 (6)
<i>Talbotstown Upper</i>	252 (3)	301 (3)

Source: tables 5 & 8, italics for figures unapproved by Mason.

Mean household size trends, however, varied considerably between 1813-5 and 1821, although the notional levels jumped significantly in all baronies (table 11). The national average in 1821, at 5.95, was higher than the equivalent figure for Britain,¹³ and within County Wicklow the mean household size had reputedly

risen from a figure of 6.16, recorded in 1813-5, to 6.41 in 1821, considerably exceeding the national average. It is notable, however, that the 1821 data suggests that the baronies of Arklow and Talbotstown Lower and Upper had the highest mean household size, which had not been the case eight years earlier. In 1813-5, in fact, Talbotstown Lower, with an MHS of just 6.02, had the lowest mean household size, but by 1821 it had larger household sizes than any other barony. Table 11, which compares the reported MHS for each barony for 1813-5 and 1821, suggests that the mean household size in Talbotstown Lower increased by 0.61 per house in the eight years between the censuses, which is probably unlikely. Of course, Mason had been unhappy with the figures for a number of baronies, including Talbotstown Lower, so perhaps these statistics indicate that the 1813-5 population figure for that barony was indeed deficient.

Table 11 – Comparison of MHS for the baronies of Wicklow between 1813 and 1821, showing their rank order.

Barony	MHS, 1813 (rank)	MHS, 1821 (rank)	MHS increase, 1813-21
Arklow	6.36 (1)	6.62 (2)	0.26
Ballinacor	6.06 (5)	6.15 (7)	0.09
Newcastle (1813 est.)	6.04 (6)	6.30 (5)	0.26
Half Rathdown	6.25 (2)	6.41 (4)	0.16
<i>Shillelagh</i>	<i>6.15 (4)</i>	6.17 (6)	0.02
<i>Talbotstown Lower</i>	<i>6.02 (7)</i>	6.63 (1)	0.61
<i>Talbotstown Upper</i>	<i>6.23 (3)</i>	6.59 (3)	0.36
Co. Wicklow	6.16	6.41	0.25

Source: tables 5 & 8, italics for figures unapproved by Mason.

The underlying reason for the relatively high mean household size in County Wicklow in the opening decades of the nineteenth century is far from clear. The 1821 figure of 6.41 persons per household (table 11) was much larger than similar figures in any of the neighbouring counties of Wexford, Carlow, Kilkenny and Kildare (see table 12), and was considerably greater than the national figure (5.95), which Joe Lee has described as ‘suspiciously low’.¹⁴ In fact, Wicklow’s mean household size in 1821 was the second largest of all the non-urban counties in the entire country – only Dublin county, which contained large numbers of ‘big houses’, numerous towns and villages, and burgeoning suburbs, with a mean household size of 7.22, was higher. If the suburban baronies

of St Sepulchre's and Donore are excluded from the calculation of mean household size, the mean household size in County Dublin falls to 6.62, only marginally above the Wicklow statistic.

Table 12 – Mean household size for various south-eastern counties, calculated from 1821 census data. The Dublin (excl. figures) are the county figure excluding the suburban baronies of Donore and St Sepulchre's.

County	Inhabited houses	Families	Population	MHS
Carlow	13,028	14,630	78,952	6.06
Dublin (incl. suburbs)	20,791	33,695	150,011	7.22
Dublin (excl. suburbs)	18,909	26,828	125,625	6.64
Kildare	16,478	19,180	99,065	6.01
Kilkenny	25,949	27,958	158,716	6.12
Meath	27,942	30,125	159,183	5.70
Wexford	29,159	31,939	170,806	5.86
Wicklow	17,289	19,047	110,767	6.41

Source: *Census Ire., 1821*, pp 20, 134.

Typically, urban areas, with their large houses and packed tenements, had higher mean household sizes but even when compared with urban areas the Wicklow figures are remarkable. Although the larger cities, as is to be expected, had larger mean household sizes – Dublin (12.43), Cork (9.00), Limerick (8.19), Waterford (7.81) and Galway (7.02) – Wicklow's 6.41 persons per house exceeded the comparable figure for the large urban centres of Kilkenny (6.05), Carrickfergus (5.87) and Drogheda (5.73). In the Wicklow context, urbanisation cannot be mooted as an acceptable explanation for the high mean household size, because the county did not contain any large towns in 1821. The combined population of Arklow, Wicklow, Bray and Blessington, the only towns in the county with populations exceeding 1,000, was recorded by the census at no more than 9,400 people, or less than 8.5 per cent of the county's population, and if minor towns and villages are included, the urban population rises to just 16,431 persons – less than 15 per cent of the total. In the neighbouring counties of Carlow and Kildare, both largely rural and neither containing any particularly large towns, the respective urban populations in 1821 were, for Carlow, 13,600 out of a county population recorded at 78,952 (17.2 per cent) and for Kildare, 23,531 out of a total population of 99,065 (23.8 per cent).¹⁵ Only County Wexford, with a recorded

urban population of 22,771 out of a total population of 170,806, had a lower urban population than had Wicklow (13.3 per cent).¹⁶

Even in the barony of Arklow – which contained the largest town in the county, Arklow (3,808 people), and three quarters of Wicklow town’s population of 2,046 people – only a quarter of the inhabitants of the barony (5,353 people out of a total population of 20,420) were urban dwellers. While this represented a sizeable urban population, the barony remained, nonetheless, predominantly rural, and many baronies in the neighbouring counties were considerably more urbanised (table 13). Despite this, and somewhat inexplicably, the mean household size in the barony of Arklow was considerably higher than the majority of even the most urbanised baronies in the south-eastern counties (table 13).¹⁷

Table 13 – The ten baronies in Counties Wicklow, Wexford, Carlow and Kildare, in rank order, which were proportionately the most urban, as reported by the 1821 census.

Barony	County	Urban pop.	Total pop.	% urban	MHS
Carlow	Carlow	8,035	14,475	55.5	6.45
Narragh & Reban West	Kildare	3,693	6,833	54.0	5.73
South Salt	Kildare	1,786	3,902	45.8	6.41
Naas North	Kildare	3,421	7,499	45.6	6.07
Forth	Wexford	8,346	20,891	40.0	6.25
North Salt	Kildare	2,712	7,533	36.0	6.71
Half Rathdown	Wicklow	2,764	9,290	29.8	6.41
Arklow	Wicklow	5,353	20,420	26.2	6.62
Ikethay & Ough.	Kildare	1,497	6,025	24.8	5.77
Offaly East	Kildare	2,350	11,284	20.8	5.89

Source: *Census Ire., 1821*, pp 4, 36, 122, 130.

Although it could be assumed that the typically larger urban mean household size could account for the large statistic recorded for Arklow, this is in fact not the case. While the urban centres do boost the mean household size within the barony, the effect is marginal, and the rural MHS, at 6.59, still remained exceptionally high.¹⁸ Furthermore, urbanisation cannot be validly ventured as an explanation for the high mean household size recorded for the western baronies of Talbotstown Upper and Talbotstown Lower (table 11). It would appear that, therefore, that, uniquely among the south-eastern counties (and indeed among all Irish counties), Wicklow had an exceptionally high rural mean household size at the beginning of the 1820s, and that the high mean household size reported by the 1813-5 censuses (table 11) were unlikely to have been exaggerated. .

The 1821 census was also the first national enumeration to provide detailed information on the extent of urban and rural settlement within the county.

Typically, urban households were larger than rural ones, as can be seen from table 14, which contrasts the mean household size in urban and rural areas, by barony, although the difference was usually marginal, and there were exceptions.¹⁹ As is shown in table 14, the county figure for rural mean household size in 1821, at 6.40, was only marginally lower than the comparable urban figure, of 6.47, and in three baronies (Ballinacor, half Rathdown and Shillelagh) rural households were larger than their urban counterparts. The greatest discrepancy between urban and rural household sizes was recorded in half Rathdown, where the mean rural house contained 0.74 more persons than the mean urban one, but across the mountains, in Talbotstown Upper, the mean size of an urban house was 7.21, significantly higher than that barony's mean rural equivalent (6.51). There was a greater consistency among rural households, too, and in none of the baronies did the rural mean household size drop below 6.0, but in the small urban areas in Ballinacor and Shillelagh and the more significant urban areas in half Rathdown, the mean household size was relatively small.

Table 14 – Urban and rural MHS in Wicklow baronies, 1821.

Barony	Urban			Rural			% urban
	Pop.	Houses	MHS	Pop.	Houses	MHS	
Arklow	5,353	798	6.71	15,067	2,287	6.59	26.2
Ballinacor	1,255	216	5.81	20,128	3,259	6.18	5.9
Newcastle	1,582	240	6.59	11,716	1,872	6.26	11.9
Half Rathdown	2,764	468	5.91	6,526	982	6.65	29.8
Shillelagh	855	151	5.66	13,021	2,097	6.21	6.2
Talb. Lower	2,177	327	6.66	11,526	1,740	6.62	15.9
Talb. Upper	2,445	339	7.21	16,352	2,513	6.51	13.0
Co. Wicklow	16,431	2,539	6.47	94,336	14,750	6.40	14.8

Source: *Census Ire., 1821*, pp 126-31.

Since urbanisation can not be postulated as a reason for the exceptionally high mean household size in County Wicklow at this time, relative to the figures recorded in the surrounding counties, a different explanation must be sought. At times of high population densities (and consequently, relative scarcity of land) it is reasonable to expect that household size would increase. In such circumstances, in pre-industrial societies, the rent price of land tended to encourage later marriages,

which meant that offspring remained in the family home for a longer duration, and mean household size increased. It seems probable that it was a mismatch between supply and demand in the land market was the reason for the unprecedented mean household size evidenced in Wicklow in the 1813-5 and 1821 censuses. As has been seen (table 6), Wicklow was considerable more crowded than its neighbours, and by 1821 the effective population density (the number of people per 1,000 *habitable* acres) was exceptionally high (table 8), exceeding 300 per acre in all baronies, and approaching 500 per acre in Rathdown and Talbotstown Upper. Land may have been plentiful, but productive land was scarce (figure 17).

THE 1831 AND 1841 CENSUSES

The figures from the next census, although they have never succeeded in extricating themselves from the unjustified criticisms of Thomas Larcom, the 1841 census commissioner, are probably no less accurate than any of the other pre-Famine censuses. It was noted in the introduction that boundary confusion during this census was an issue, although confusion over the boundary between the parishes of Powerscourt and Kilmacanoge appears to have been the most significant of the few problems encountered in Wicklow, and since both of these parishes lie within the half barony of Rathdown, the problem with their boundaries does not impact on a consideration of barony populations. The barony population and house totals, as recorded by the 1831 census, are presented in table 15.

Table 15 – Barony population estimates for County Wicklow, 1831.

Barony	Area (acres)	Pop.	Houses	MHS	Annual % rate of increase, 1821-31	Pop. per 1,000	
						acres	hab. acres
Arklow	67,281	22,796	3,434	6.64	1.1	339	356
Ballinacor	152,426	23,839	3,691	6.46	1.1	156	450
Newcastle	52,088	15,770	2,382	6.62	1.7	303	358
Half Rathdown	34,382	11,652	1,756	6.64	2.3	339	555
Shillelagh	44,349	14,204	2,186	6.50	0.2	320	338
Talbotstown Lower	86,858	14,784	2,196	6.73	0.75	170	365
Talbotstown Upper	62,510	18,512	2,767	6.69	-0.15	296	481
County Wicklow	499,894	121,557	18,412	6.60	0.9	243	401

Source: *Census Ire., 1831, p. 114-8.*

As was seen earlier (table 8) the annual rates of population growth between 1813 and 1821 was of the order of 2.0 per cent for the county as a whole, but underlying this was a significantly varying growth rate at barony level, with the

reputed rate of growth in Arklow (1.4 per cent per year) contrasting with a spectacular annual growth rate in Rathdown (a dubious 3.1 per cent). The annual growth-rate figures for the decade 1821-31 provide some evidence that the rates determined between the earlier censuses may not be seriously inaccurate. The data suggest that the county's annual growth rate between 1821 and 1831 had fallen compared with the calculated figure for the 1813-21 period but, at 0.9 per cent, still remained substantial. The half barony of Rathdown, which emerged as the most rapidly growing area between 1813 and 1821, was still experiencing the most rapid population growth in the 1820s (2.3 per cent, per year), and by 1831 this region had an effective population density of over 500 per 1,000 habitable acres. Supporting this finding, Newcastle barony, bordering Rathdown to the south, also experienced growth rates (1.7 per cent per year), significantly above the county mean and the population in the other barony bordering Rathdown, Ballinacor, grew at a mean annual growth rate of 1.1 per cent.

Significantly, a marked difference emerged between the demographic patterns of the east and the west of the county. The populations of the eastern baronies – half Rathdown, Newcastle and, to a lesser extent, Arklow – all grew at a mean annual rate which exceeded the county average, but the demographic advances in western and southern areas were more muted, and the population in Talbotstown Upper appears to have declined. Two factors may explain the increased demographic attractions of the east coast. First, the delayed economic impacts of the Act of Union were beginning to be felt during this decade. The Union instructed that a United Kingdom-wide free trade area be established, but import duties had remained in place for a twenty-year period, restricted trade.²⁰ During the 1821-31 decade the new free trade status consequently boosted trade between the two islands, thereby increased the strategic importance of eastern coastal ports. Additionally, two apparently contradicting factors – the continued growth of Dublin city, coupled with its reduced political importance – and improvements in travel facilitated the growth of regions, accessible from, but also distant from, the metropolis.²¹ Notably it was the baronies closest to Dublin, which experienced the greatest rates of growth in both the east and the west of the county. The annual rate of growth in the north-eastern baronies of half Rathdown

and Newcastle exceeded the growth rate in Arklow and the rate of growth in Talbotstown Lower exceeded that of Talbotstown Upper and of Shillelagh.

There is some evidence to suggest that the county was becoming increasingly urbanised by this time, although it is difficult to draw firm conclusions in this regard. The 1831 census data uses three terms to categorise urban areas – towns, villages and hamlets. In the Wicklow context a hamlet is tiny, ranging in size from 7 to 15 houses. The largest Wicklow hamlet, Sheanna in Rathdrum parish, contained just 95 persons. Larger than a hamlet was the village. Villages in County Wicklow ranged from the very small Killahurler (thirteen houses and just eighty-two people) to Rathnew, which had a recorded population of 476 persons, living in seventy-eight houses. Urban areas categorised as towns ranged from ninety-four houses in Tinahely to the 692 houses populated by 4,383 persons in Arklow. It is unclear if the categorisations were successfully communicated to the enumerators, or rigorously applied, but as the smallest village was smaller in both house and population numbers than the largest hamlet, it seems probable that they were not.

Table 16 – Population distribution among habitation categories in the baronies of Wicklow, 1831.

Location	Barony	Population					% urban	
		Hamlet	Village	Town	Rural	Tot.	1831	1821
East	Arklow	44	362	6,026	16,364	22,796	28.0	26.2
	Ballinacor	337	127	1,629	21,746	23,839	7.4	5.9
	Newcastle	272	1,439	2,198	11,861	15,770	23.1	11.9
	half Rathdown		956	2,590	8,106	11,652	30.4	29.8
South	Shillelagh	91	213	826	13,074	14,204	7.3	6.2
West	Talb. Lower		754	1,785	12,245	14,784	17.2	15.9
	Talb. Upper	81	136	2,622	15,673	18,512	14.9	13.0
Co. Wicklow		825	3,987	17,676	99,069	121,557	17.8	14.8

Source: *Census Ire., 1831*, pp 114-8. Note: the '% urban' column is the proportion of the total population that was recorded as living in either a town or a village. Since hamlets are so tiny, often no more than small rundale settlements, it is unwarranted to describe them as urban areas. 1821 figures replicated from table 14 for comparison purposes.

The aggregated figures for urban-habitation categories are shown in table 16. A clear contrast is evident between the three eastern baronies, which remained the most urbanised, and the southern and western baronies. All areas were predominantly rural but Shillelagh, containing only one town (Carnew) of note, was almost exclusively so. Newcastle, Arklow and half Rathdown were the three

most urbanised baronies, with more than one in five of the total population living in either a village or town.

Comparing these urban statistics with the equivalent figures from the 1821 census is problematic. While the categorisation of urban areas in the 1831 census, though imperfect, was, nonetheless, reasonably standardised, the same had not been the case in 1821. In that enumeration, urban details were at times listed separately from the parish data and in other cases were just noted in the 'Observations' column. It seems probable, therefore, that some urban areas were not individually noted in the 1821 census, instead being aggregated with the parish data (table 14). Based on the available data, however, the figures do suggest a modest increase of between 1 and 2 per cent in the urban proportions in most baronies during the decade after 1821. The exception is Newcastle, where the proportion of the urban population doubled, from 12 per cent to 23 per cent, although some of this increase arises because new urban areas were categorised in the latter survey.

Mean household size for the county, which had been very high in 1821, continued to grow during the 1820s and by 1831 it had reached 6.60 (table 15). The gap between the national mean household size (recorded in the census at an all time high of 6.21²²) and the typical size of Wicklow's households had narrowed between 1821 and 1831, but remained substantial.²³ Underlying the increase in household size, however, were considerable structural changes in terms of household formation (see figure 18). Mean household size had advanced considerably in all of the county's baronies with the exception of Arklow, for which the figure had increased only marginally, and the two Talbotstown baronies had, by 1831, clearly emerged as the region with the largest mean household size (table 15). Experiencing the most rapid growth in household size, however, was upland Ballinacor, and Newcastle and half Rathdown, in the north-east. It was noted earlier that these baronies were among the areas where the population was advancing most rapidly so it would not be unreasonable to suppose that scarcity of land was encouraging the formation of multi-family habitations, but this would appear not to have been the case. In fact, between the 1821 and 1831 censuses the mean number of families-per-house fell, not just in the counties surrounding

Wicklow, but in all of the Leinster counties except Wexford, where the statistic was maintained between the two censuses (table 17). Whilst the mean number of families per house did increase in a handful of east Leinster baronies, usually in contiguous geographic areas, such as east Meath or mid-Wexford (appendix 7), in general there was a marked province-wide decline in this figure. Within Wicklow, the number of families-per-house increased only in Newcastle and Ballinacor. As all but fragmentary manuscript census material has survived, it is not possible to verify whether the actual number of multi-family households was also reducing, but this seems likely. Thus, the available evidence suggests that despite an increase in the population between 1821 and 1831, and in spite of an increase in the mean household size during the same period, family-structure trends in Wicklow were moving away from multi-family households, and favouring the establishment of nuclear families. These trends are illustrated clearly in table 17 and figure 19 and in appendix 7 (table 78).

Table 17 – Mean number of families per house (FPH) in all Leinster counties and in the Wicklow baronies in 1821 and 1831. The data for all Leinster baronies are presented in appendix 7 (table 78).

County	barony	1821 (FPH)	1831 (FPH)	Trend, 1821-31
Leinster (excl. Dublin)		1.10	1.07	Decline
Carlow		1.12	1.10	Decline
Kildare		1.16	1.09	Decline
Kilkenny		1.08	1.06	Decline
King's		1.12	1.07	Decline
Longford		1.14	1.05	Decline
Louth		1.10	1.05	Decline
Meath		1.08	1.06	Decline
Queen's		1.08	1.07	Decline
Westmeath		1.07	1.06	Decline
Wexford		1.10	1.10	No change
Wicklow		1.10	1.08	Decline
	Arklow	1.15	1.13	Decline
	Ballinacor	1.05	1.06	Increase
	Newcastle	1.05	1.10	Increase
	Half Rathdown	1.15	1.08	Decline
	Shillelagh	1.08	1.08	Decline
	Talbotstown Lower	1.07	1.04	Decline
	Talbotstown Upper	1.17	1.09	Decline

Source: *Census Ire., 1821*, pp 4, 36, 48, 62, 68, 76, 92, 100, 110, 122, 130; *Census Ire., 1831*, pp 4, 32, 46, 54, 60, 68, 84, 92, 100, 110, 118.

The demographic trends for County Wicklow (and for the south-east generally) which emerge from a consideration of the 1813-5, 1821 and 1831 censuses are, in large measure, confirmed by the results from the 1841 survey. Nationally, the population had continued to increase between 1831 and 1841, although the rate of growth had moderated (table 18) and the national mean household size appears to have fallen back slightly, from the all-time high of 6.21 in 1831 to 6.15 by 1841.²⁴ However, Lee has suggested that the population in 1841 may have been as high as 8.4 million people, which would imply a mean household size of up to 6.32, and a possible increase between 1831 and 1841.²⁵ The mean number of families per house in 1841 also remained high, at 1.11.²⁶

Table 18 – Annual rate of national population growth for various adjusted estimates of the national population, in the immediate pre-Famine period.

Pop. estimate from ...	1821	1831	1841	1845		Est. mean rate of inc. p.a. (%)
Census figures	6,802	7,767	8,175			Lee, 1821-31 0.92
Lee (est.)	7,200	7,900	8,400			Lee, 1831-41 0.62
Boyle & Ó Gráda (est.)		7,847		8,525		Boyle & Ó Gráda, 1831-45 0.59

Source: Lee, 'Accuracy of pre-Famine Irish censuses', p. 54; Boyle and Ó Gráda, 'Fertility trends, excess mortality, and the Great Irish Famine', p. 556. Note: the corresponding rates of growth as reported from the official census figures are 1.34 per cent (1821-31) and 0.51 per cent (1831-41) per annum.

For County Wicklow, and indeed for the south-east in general, a similar pattern was manifested, although before any intra-census comparisons are made it is necessary to adjust the barony and county population figures to take account of the substantial changes to administrative boundaries which, as was noted in the introduction, occurred between 1831 and 1841. As all of the changes at barony and county level between 1831 and 1841 are detailed in a note at the end of the 'Summary of the General Table' for each county, this readjustment of regional population levels for 1841 to reflect the 1831 boundaries, becomes a trivial, but tedious, exercise. The 1841 census figures for the eastern counties, appropriately adjusted, are presented in table 19.²⁷

Table 19 – Adjusted 1841 census figures for baronies in eastern counties of Carlow, Dublin, Kildare, Meath, Wexford and Wexford.

Baronies/counties	Population				1841		MHS		
	1821	1831	1841 (cen.)	1841 (adj.)	Houses	Families	1821	1831	1841
Carlow									
Carlow	14,475	16,599	15,937	16,189	2,400	2,919	6.45	6.51	6.64
Forth	10,039	9,951	11,427	11,191	1,901	1,962	5.99	6.01	6.01
Idrone East	19,824	19,694	20,765	20,765	3,492	3,788	5.83	6.00	5.95
Idrone West	7,415	8,081	8,435	8,435	1,404	1,465	5.99	6.15	6.01
Rathvilly	17,359	17,503	19,272	19,168	3,139	3,356	6.16	6.26	6.14
Saint Mullin's	9,840	10,160	10,392	10,392	1,672	1,720	5.96	6.05	6.22
Co. Carlow	78,952	81,988	86,228	86,140	14,008	15,210	6.06	6.18	6.16
Dublin									
Balrothery	18,395	20,359	21,613	19,666	3,965		5.53	5.86	5.45
Castleknock	6,776	8,483	9,855	7,972	1,444		7.07	7.54	6.82
Coolock	33,943	39,761	19,188	39,485	2,981		7.11	7.47	6.44
Donore	11,207	11,153		9,382			12.71	14.87	
Dublin			12,600	0	1,601				7.87
Nethercross	7,915	8,597	6,204	9,210	1,061		5.71	6.00	5.85
Newcastle	19,344	21,594	7,397	20,881	1,254		7.92	7.05	5.90
Half Rathdown	18,046	29,288	38,775	32,154	6,051		6.22	7.18	6.41
St. Sepulchre's	13,179	13,631		10,696			13.18	12.62	
Uppercross	21,206	23,146	24,415	27,681	3,755		6.79	6.63	6.50
Co. Dublin	150,011	176,012	140,047	177,127	22,112		7.22	7.39	6.33
Co. Dublin(excl. city)	125,625	151,228		157,049			6.64	6.88	
Kildare									
Carbury	9,598	10,062	9,890	10,028	1,580	1,669	5.98	6.11	6.26
Clane	7,866	8,356	8,534	8,534	1,421	1,507	6.13	5.86	6.01
Connell	7,712	9,285	9,949	9,949	1,608	1,730	6.24	6.31	6.19
Ikeathy and Oughterany	6,025	6,659	6,162	6,162	1,046	1,090	5.77	6.09	5.89
Kilcullen	2,886	3,172	3,324	3,324	548	588	5.54	6.10	6.07
Kilkea & Moone	10,544	10,830	11,092	11,092	1,834	1,955	6.00	6.79	6.05
North Naas	7,499	8,602	8,081	8,049	1,313	1,464	6.07	6.56	6.15
South Naas	4,065	4,377	7,608	4,502	1,219	1,320	6.15	6.48	6.24
Narragh & Reban East	6,533	7,386	7,049	7,062	1,149	1,266	5.96	6.44	6.13
Narragh & Reban West	6,833	8,389	9,033	9,020	1,468	1,733	5.73	6.38	6.15
Offaly East	7,533	7,072	10,584	7,280	1,780	1,900	5.89	5.96	5.95
Offaly West	11,284	12,055	11,213	11,759	1,840	1,967	5.79	6.06	6.09
North Salt	6,785	8,025	7,717	7,717	1,089	1,421	6.71	7.20	7.09
South Salt	3,902	4,154	4,252	4,252	661	728	6.41	6.25	6.43
Co. Kildare	99,065	108,424	114,488	108,730	18,556	20,338	6.01	6.32	6.17
Meath									
Lower Deece	3,642	3,931	3,990	3,896	660	691	5.70	6.00	6.05
Upper Deece	4,941	5,294	5,160	5,254	859	893	5.95	6.22	6.01
Drogheda			770	0	162	162			4.75
Lower Duleek	12,671	13,717	11,055	10,702	1,917	1,999	7.65	7.80	5.77
Upper Duleek	9,232	10,020	7,096	8,421	1,220	1,243	6.49	6.61	5.82

Baronies/counties	Population				1841		MHS		
	1821	1831	1841 (cen.)	1841 (adj.)	Houses	Families	1821	1831	1841
Dunboyne	8,074	8,941	2,723	2,723	451	490	21.82	21.86	6.04
Fore (Demifore)	2,351	2,698	14,432	14,432	2,429	2,573	1.05	1.16	5.94
Lower Kells	12,292	13,666	14,627	14,243	2,473	2,562	5.67	5.86	5.91
Upper Kells	18,300	20,462	22,142	22,142	3,544	3,996	5.67	6.04	6.25
Lune	10,205	12,212	12,519	12,519	2,122	2,282	5.40	5.88	5.90
Morgallion	10,890	11,990	11,555	11,550	2,046	2,128	5.71	5.64	5.65
Lower Moyfenragh	10,582	11,893	12,859	12,859	2,062	2,215	6.04	6.27	6.24
Upper Moyfenragh	7,802	8,631	8,915	8,777	1,482	1,542	5.72	6.28	6.02
Lower Navan	14,175	16,234	15,873	17,939	2,572	2,836	5.49	5.51	6.17
Upper Navan	4,452	4,857	4,860	4,860	836	859	5.67	6.03	5.81
Ratoath	5,391	6,685	6,214	6,214	978	1,101	5.95	6.83	6.35
Skreen	7,979	8,683	9,456	8,484	1,576	1,639	6.02	6.25	6.00
Lower Slane	8,671	9,647	9,956	10,456	1,736	1,799	5.47	5.66	5.74
Upper Slane	7,533	7,265	9,626	7,449	1,660	1,727	5.76	5.73	5.80
Co. Meath	159,183	176,826	183,828	182,920	30,785	32,737	5.70	5.93	5.97
Wexford									
Ballaghkeen	26,620	27,867	31,249	31,426	5,460	5,788	5.68	5.80	5.72
Bantry	28,088	29,945	34,762	34,762	5,546	6,256	5.81	6.27	6.27
Bargy	11,212	12,113	13,197	13,197	2,174	2,306	6.02	6.33	6.07
Forth	20,891	22,392	24,557	24,557	3,960	4,722	6.25	6.31	6.20
Gorey	20,107	21,188	24,281	23,925	3,980	4,263	5.82	6.15	6.10
Scarawalsh	28,016	31,229	34,184	34,363	5,714	6,214	5.85	6.12	5.98
Shelburne	17,963	17,687	18,712	18,712	3,007	3,199	5.84	6.18	6.22
Shelmalier	17,909	20,292	21,091	21,091	3,666	3,846	5.76	5.84	5.75
Co. Wexford	170,806	182,713	202,033	202,033	33,507	36,594	5.86	6.11	6.03
Wicklow									
Arklow	20,420	22,796	25,263	25,263	3,854	4,440	6.62	6.64	6.56
Ballinacor	21,383	23,839	25,687	25,687	3,913	4,200	6.15	6.46	6.56
Newcastle (est.)	13,298	15,770	16,444	16,444	2,474	2,689	6.30	6.62	6.65
Half Rathdown	9,290	11,652	11,423	11,423	1,757	1,954	6.41	6.64	6.50
Shillelagh	13,876	14,204	14,057	14,057	2,155	2,271	6.17	6.50	6.52
Talbotstown Lower	13,703	14,784	14,638	14,638	2,203	2,446	6.63	6.73	6.64
Talbotstown Upper	18,797	18,512	18,631	17,741	2,854	3,182	6.59	6.69	6.53
Co. Wicklow	110,767	121,557	126,143	125,253	19,210	21,182	6.41	6.60	6.57
Dublin city	185,881	204,155	232,726	199,762					
Total of SE counties, excl. Dublin city			852,767	882,203	138,178				6.17

Source: *Census Ire., 1821*, pp 4, 20, 36, 92, 122, 130; *Census Ire., 1831*, pp 4, 32, 84, 110, 118; *Census Ire., 1841*, pp 4, 42, 100, 132, 140. Note: The adjusted population for 1841 is the population level based on the pre-adjusted (1831) boundaries.

Typically, growth rates had moderated considerably between 1831 and 1841 compared with the growth rates in the previous decade. In Leinster the population grew by only 3.35 per cent during the decade and Wicklow, growing at 3.77 per cent, was close to the provincial level. Of the counties bordering

Wicklow, only Wexford (10.57 per cent) experienced growth rates above the average.²⁸

Table 20 – Rates of population increase between the censuses of 1813-5, 1821, 1831 and 1841 for eastern counties (excluding Dublin city) and for the baronies of Wicklow, and some neighbouring baronies (baronies in italics).

County	barony	Rate of population increase (per cent)		
		1813-21	1821-31	1831-41
Carlow		13.5	3.9	5.1
Dublin		25.6	17.3	0.6
Dublin(excl. city parts)		26.2	20.4	3.9
	<i>Half Rathdown (Dublin)</i>	12.8	62.3	9.8
Kildare		16.4	9.5	0.3
	<i>North Naas</i>	24.0	14.7	-6.4
	<i>South Naas</i>	8.3	7.7	2.9
	<i>Narragh & Reban East</i>	3.4	13.1	-4.4
Meath		11.7	11.1	3.5
Wexford		N/A.	7.0	10.6
	<i>Gorey</i>	N/A.	5.4	12.9
	<i>Scarawalsh</i>	N/A.	11.5	10.0
Wicklow		17.3	9.7	3.0
	<i>Arklow</i>	11.9	11.6	10.8
	<i>Ballinacor</i>	16.1	11.5	7.8
	<i>Newcastle (1813 est.)</i>	17.3	18.6	4.3
	<i>Half Rathdown (Wicklow)</i>	27.5	25.4	-2.0
	<i>Shillelagh</i>	14.5	2.4	-1.0
	<i>Talbotstown Lower</i>	21.8	7.9	-1.0
	<i>Talbotstown Upper</i>	19.1	-1.5	-4.2
SE counties, excl. city of Dublin		N/A.	10.2	4.09

Source: tables 5 & 19. Note: the data for all baronies in the region is presented in table 79 (appendix 8).

Expansive county statistics can, of course, disguise local patterns and significant barony population changes were occurring at this time. The barony changes are detailed in table 20. Whilst population trends in County Wicklow may have been closely tracking the national average, within the county the census data suggests that the population of Arklow and Ballinacor had continued to increase rapidly between 1831 and 1841 whilst the population of the western baronies had fallen back further (table 20). In fact, the differences in population trends which had been manifested in the decade after 1821, with the population of the east coast advancing while the western areas stalled or shrank, appears to have been maintained during the subsequent decade, although the population of the half barony of Rathdown appears to have fallen marginally between 1831 and 1841.

Regional variations are particularly apparent, too, in the data and adjoining baronies were often experiencing comparable trends, as can be seen in appendix 8, which presents the relevant data for counties adjacent to County Wicklow. In Gorey barony, in north County Wexford, for example, which bordered rapidly populating Arklow to the south, the population had increased by almost 13 per cent between 1831 and 1841. Similarly, Talbotstown Upper, which experienced a population decline of over 4 per cent, bordered the barony of Narragh and Reban East, in County Kildare, where the population had declined by almost 4.5 per cent, and Talbotstown Lower, which had experienced a marginal population decline, was adjacent to South Naas and North Naas, both of which had also displayed only marginal population changes. In the south, a declining population in Shillelagh also closely matched the trends in bordering areas in west Wicklow and east Kildare.

Mean household size was also showing signs of moderating in the region. In Wexford and Kildare the mean household size had fallen considerably, and at 6.03, mean household size in Wexford had dropped well below the national average of 6.15.²⁹ Household size in Wicklow had fallen back only marginally during this period, to 6.57 (table 19), (if the 1841 census is as deficient as Lee has suggested (table 18), Wicklow's mean household size may even have increased)³⁰ and, outside the cities, only County Waterford (6.82) had larger households than were present in County Wicklow.

At barony level the mean household size across the county had become more homogeneous, with the difference between the largest and the smallest mean household size shrinking to only 0.15 (table 19), compared with differences of 0.48 in 1821 and 0.27 in 1831 (tables 11 and 15). The uniqueness of County Wicklow with regard to household size, which had been evident in 1821 and 1831, was maintained in 1841 and all of the Wicklow baronies exhibited mean household sizes well above the national mean. Even within the south-eastern region, mean household size in Wicklow now surpassed that of rural Dublin, and only Counties Dublin (6.33) and Kildare (6.17) had mean household sizes even approaching that of Wicklow.

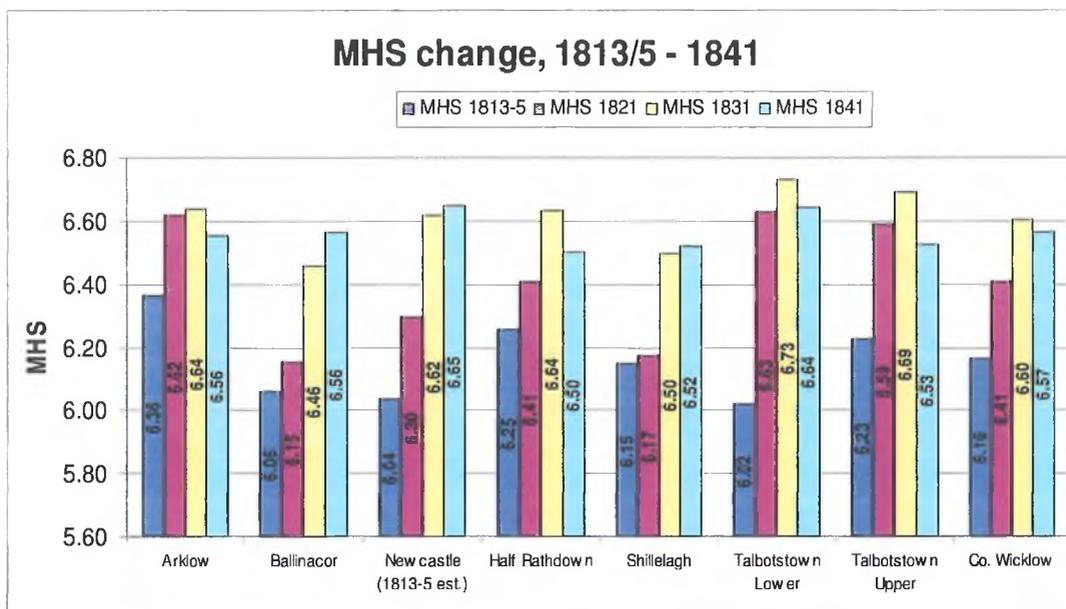


Figure 18 – Mean household size for Wicklow baronies, 1813-5, 1821, 1831 and 1841 (source: tables 5 and 19).

Despite the increasing population during the 1830s the mean number of families per house did not alter greatly between the periods with the statistic for most counties varying only marginally. In County Wicklow the statistic increased from 1.08 to 1.10, the same figure that had been reported in 1821 (table 17), and although the change is only marginal, most other counties in the region were experiencing falling family-per-house statistics (table 21 and figure 19). Densely populated, and crammed with bulging houses, Wicklow, it appears, was, indeed unique.

Table 21 – Mean families-per-house (FPH) for various eastern counties 1831 and 1841 (source: tables 17 and 19).

County	1831 (FPH)	1841 (FPH)
Carlow	1.10	1.09
Kildare	1.09	1.10
Meath	1.06	1.06
Wexford	1.10	1.09
Wicklow	1.08	1.10

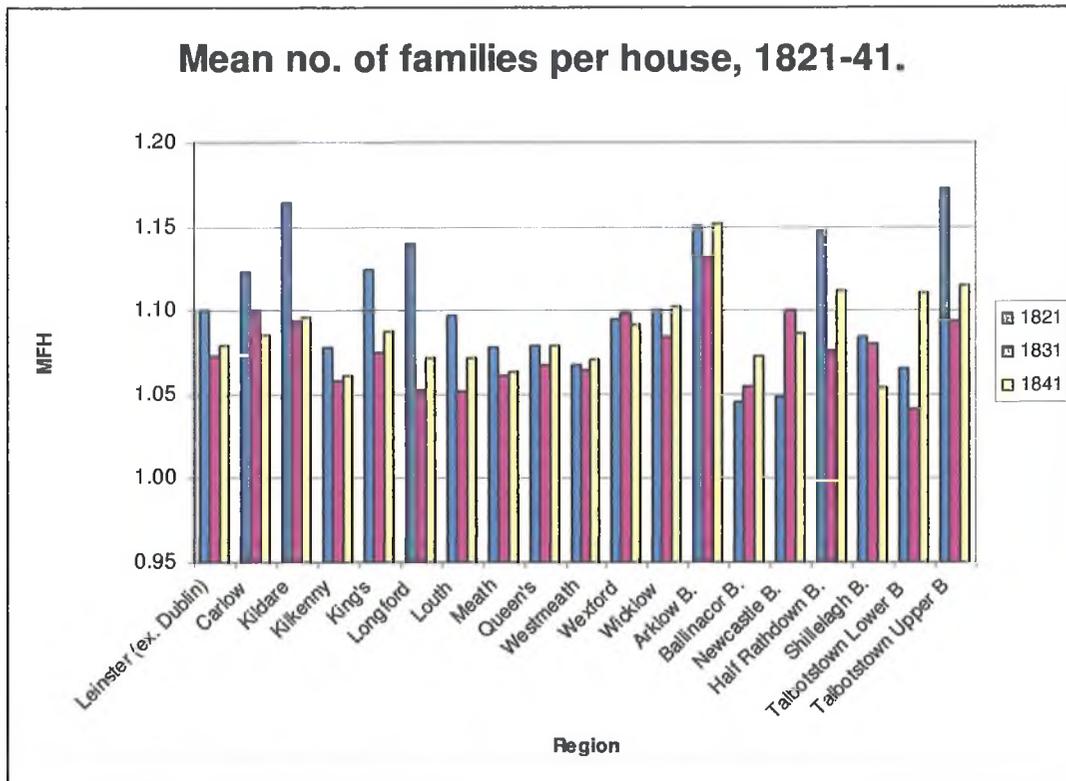


Figure 19 – Mean number of families-per-house for various administrative regions in Leinster, 1821, 1831 and 1841 (source: table 19).

THE ACCURACY OF THE PRE-FAMINES CENSUSES

The dynamics of human populations – constantly fluctuating, under the influences of fertility, mortality and migration – means that historical censuses should never be viewed as anything more than ‘snapshot’ population-estimates, which can have had, at best, only a transitory accuracy. The surviving pre-Famine census data for County Wicklow are statistical abstracts, which only provide guideline information on settlement patterns in the region. Nonetheless, as has been seen from this brief analysis of the pre-Famine statutory census statistics, some clear trends are evident for many of the demographic characteristics reported for the Wicklow region.

The consistency of the statistics regarding mean household size and the mean number of families per house suggests that the population-data in the censuses are unlikely to have been grossly incorrect, and the uniqueness of Wicklow’s human landscapes, with people crowded into narrow corridors to the east and west of the uplands, fits comfortably with the patterns presented by Jacob

Nevill's and Richard Griffith's surveys, which were discussed in chapter one (figures 10 and 17). Wicklow's mean annual rates of population increase in the two decades between 1821 and 1841 were also shown to have fallen within the bounds of acceptability, and to have generally mirrored the national trends.

At a regional level, the rates of population-growth in the baronies between censuses, shown in table 20 and in appendix 8 provide further evidence for the accuracy of the pre-Famine Wicklow-region census data. It can be reasonably expected that there would be a general positive correlation between population trends in neighbouring areas, and this is what typically emerges from the various census returns. Population trends are determined by three principal influences; fertility, mortality and migration. Typically fertility and mortality patterns (except during times of demographic crisis) would have been broadly similar in arbitrary regions within a particular geographic location, and baronies are, of course, just arbitrary regions. Thus, if the fertility or mortality rates in one area change, it is reasonable to expect that changes of a similar order would be reflected in neighbouring areas, which has been shown to have been broadly the case for the period between 1821 and 41, at least in regard to trends in population levels.³¹

Further evidence that the 1821, 1831 and 1841 census data for County Wicklow are reasonable accurate can be seen from the mean household size figures for the baronies, and from the rank order of population densities within the baronies, which appear to have been fairly consistent during this period (tables 10 and 19). A high effective population density in the county manifested itself in an exceptionally high mean household size, which remained consistently above the national and regional equivalents throughout these three censuses. Notably, the mean household size for all of the seven Wicklow baronies remained above 6.0 for all of the pre-Famine censuses, including from the 1813-5 enumeration (figure 18).

In general, therefore, it seems clear that there is a broad match between the general population trends reported for County Wicklow by the 1821, 1831 and 1841 censuses, and while Lee's well-worn comment about the accuracy of pre-Famine censuses may be reflective of the national returns, it would be unjustifiable, on the basis of the foregoing brief analysis, to describe the 1821,

1831 and 1841 censuses of the county as anything other than tolerably accurate snapshot estimates of the county's population for those three years. While the population estimates reported by these censuses are unlikely to be scrupulously accurate, they are also unlikely to be wildly inaccurate, and any attempted adjustment of the returns for 1821, 1831 or 1841 would be no more than speculative.

The situation with regard to the 1813-5 census is different, however, for a number of reasons. In terms of population levels, once adjustment is made for the lack of a return for Newcastle barony the reputed annual rate of population increase for the county between 1813 and 1821 (table 8) lies marginally without the bounds of credibility (table 2). At a regional level, the lowest rates of annual increase during this period were reported for Arklow (1.4 per cent) and Ballinacor (1.9 per cent) (approved by Mason) and for Shillelagh (1.7 per cent) (rejected by Mason), while the largest increases were reported by the two Talbotstown baronies (2.5 per cent and 2.2 per cent respectively) (rejected by Mason), in the west, and the half-barony of Rathdown (approved by Mason), in the north-east (3.1 per cent) (table 8). Because of the reputedly high rate of increase in the latter three regions, all of which exceed the proposed maximum rate of population growth that was outlined in table 2 these baronies must be viewed as the most likely contenders for poor enumeration in the 1813-5 census.

In the case of the two Talbotstown baronies, the reputed rates of population increase during the 1810s contrasted sharply with the growth rates that were later reported by subsequent censuses, and it may also be significant that Mason had rejected both of these sets of figures. Mean household size comparisons between the 1813-5 statistics and the figures from the subsequent pre-Famine censuses provide additional evidence. As can be seen from figure 18, the largest inter-census mean-household-size differences occur between the 1813-5 and 1821 censuses with the largest differentials evident for the baronies of Talbotstown Lower (0.61) and Talbotstown Upper (0.36), while smaller changes were recorded elsewhere (Ballinacor – 0.09, Newcastle (1813-5 estimate) – 0.26, Arklow – 0.26 and Rathdown – 0.16). Here again the coincidence of differing trends in the western baronies and the rejection by Mason of the 1813-5 data for those two

baronies must be stressed, and it seems reasonable to conclude, on the basis of the consistency of the evidence, that the Talbotstown returns were relatively more deficient in 1813-5 than were the returns from elsewhere in the county.

The case is less clear-cut with regard to the 1813-5 returns for half-Rathdown, the other region that reported strong growth during the 1810s. First, unlike with the Talbotstown returns, Mason had approved the figures for Rathdown. Secondly while a rapid (3.1 per cent) rate of population increase between 1813 and 1821 is not impossible,³² this trend contrasts with the pattern reported in the Dublin part of the barony, which experienced more acceptable rates of growth of just 1.5 per cent per annum (table 23). Although the Wicklow part of the Rathdown barony did experience further rapid population growth between 1821 and 1831 it seems probable that the 1813-5 population estimate, notwithstanding Mason's apparent confidence in the figures, was something of an underestimate. For the remainder of the county, the implied annual rate of population growth between 1813 and 1821 (Arklow, Ballinacor and Shillelagh) all fall within the bounds of credibility. It seems appropriate, therefore, to view the 1813-5 census figures for those three baronies and the estimated figure for Newcastle as being tolerably accurate, while deeming the data for half Rathdown, Talbotstown Lower and Talbotstown Upper to be a degree deficient.

They are, however, likely to be only marginally deficient. If, for instance, the population of each of these three baronies is increased by approximately 750 persons then the annual rate of population growth between 1813 and 1821 for each barony falls into line with the county average and with the comparable growth rates apparently manifested during the 1820s (tables 22 and 23). Although such adjustments can neither be proved nor disproved, nonetheless they do likely reduce three sources of error in the figures. Thus, the population figures presented in the '1813 adjusted' column in table 22 seem reasonably acceptable barony population estimates for 1813 and will hereinafter be used. As can be seen, therefore, the county population was probably approximately 97,000 in 1813.

Table 22 – Barony populations (including the Dublin portion of Rathdown) as reported by the 1813-5, 1821, 1831 and 1841 censuses.

Baronies	1813	1813 adj.	1821	1831	1841 (old bdys)
Arklow	18,248	18,248	20,420	22,796	25,263
Ballinacor	18,419	18,419	21,383	23,839	25,687
Newcastle (1813 est.)	11,333	11,333	13,298	15,770	16,444
half Rathdown (Wicklow)	7,287	<i>8,000</i>	9,290	11,652	11,423
Shillelagh	12,122	12,122	13,876	14,204	14,057
Talbotstown Lower	11,250	<i>12,000</i>	13,703	14,784	14,638
Talbotstown Upper	15,783	<i>16,500</i>	18,797	18,512	17,741
Co. Wicklow	94,442	<i>c. 96,600</i>	110,767	121,557	125,253
half Rathdown (Dublin)	15,995	15,995	18,046	29,288	32,154

Source: population figures from tables 5 & 19. Note: the 1813-5 figures are adjusted upwards for the likely deficient figures for half Rathdown (Wicklow), Talbotstown Lower and Talbotstown Upper. Italics indicate adjusted figures.

Table 23 – Estimated annual rates of barony population growth in Wicklow (including the Dublin portion of Rathdown) as reported by the 1813-5, 1821, 1831 and 1841 censuses (table 22).

Baronies	Mean annual percentage growth rates between censuses			
	1813-21	1813 (adj.)-21	1821-31	1831-41 (old bdys)
Arklow	1.4	1.4	1.1	1.0
Ballinacor	1.9	1.9	1.1	0.8
Newcastle (1813 est.)	2.0	2.0	1.7	0.4
half Rathdown (Wicklow)	3.1	1.9	2.3	-0.2
Shillelagh	1.7	1.7	0.2	-0.1
Talbotstown Lower	2.5	1.7	0.8	-0.1
Talbotstown Upper	2.2	1.6	-0.15	-0.4
Co. Wicklow	2.0	1.7	0.9	0.3
half Rathdown (Dublin)	1.5	1.5	4.9	0.9

Pre-census Wicklow

THE LATE-EIGHTEENTH CENTURY

In estimating that the population of County Wicklow was of the order of *circa* 97,000 in the early years of the 1810s required some statistical tightrope walking and not inconsiderable leaps of faith, but determining the county's population trends and levels in the pre-census era presents even greater challenges, and requires increasingly speculative assumptions, the further back in time one goes. As was noted in the introduction, a source that has been widely used by Irish demographic historians for generating population estimates before the nineteenth century is the hearth tax, but this is principally because of a paucity of alternative source material rather than a reflection of the suitability of the data from that tax

as a source for population reconstruction. In fact, the hearth-tax collection process was notoriously corrupt and it was not until the mid-1780s, following the application of fundamental structural reforms that were initiated by Gervais Parker Bushe, a newly appointed revenue official, that hearth tax house-counts began to reflect the total housing stock with reasonable accuracy. This issue is discussed in detail in appendix 2.³³

In the introduction three population-estimation models were presented which can be used to generate population estimates from census and census-substitute material, and the hearth-tax data, the appropriate model is the ‘taxation enumeration’ model (figure 7, model 3). The effect of Bushe’s reforms on the model (see figure 20) was to significantly reduce the proportionate strength of segment ‘h’ (the segment which indicates the degree of corruption among collectors) and dramatically expand the proportionate strength of segment ‘g’ (the segment which indicates the proportion of all householders who were enumerated in the returns). As a consequence, the proportionate strength of segment ‘i’ (the proportion of householders avoiding paying the tax) was reduced.

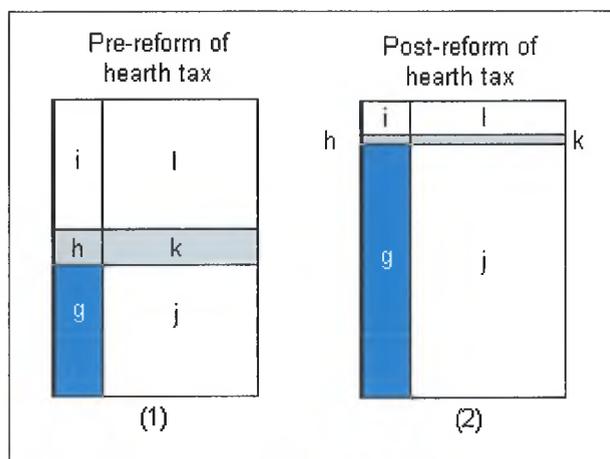


Figure 20 – The impact on Gervais Bushe’s reforms on the hearth tax (‘taxation enumeration’ model), showing how the number of households enumerated (‘g’) as a proportion of all households (‘g’ + ‘h’ + ‘i’) increased.

At this juncture a complicating factor emerges which requires clarification before proceeding. When the ‘non-census-type’ model was being developed (see introduction) it was noted that g represents the *number of householders*

enumerated as distinct from the *number of taxpayers*; a subtle distinction which really only becomes consequential in the post-reform period. The reason for this is because one of the aims of Bushe's reforms was to record more accurately the houses that were legitimately exempted from paying the tax, which, hitherto, had only haphazardly been noted by the collectors.³⁴ The effect of this change on the model is that in the pre-reform period segment 'i' would contain most of the legally exempted houses, since they were not being systematically recorded, but following Bushe's reforms most of the legally exempted houses would be contained in segment 'g', the segment which shows the number of *enumerated* (or more precisely, recorded) households – although those legally exempted were not paying tax, that they were being recorded qualifies them for inclusion in segment 'g'. In the post-reform era, therefore, segment 'i', which would have included most legally exempted houses prior to reform, just contains all householders who avoided paying the tax and all householders who, through negligence, mistake or avoidance (as distinct from being fraudulently omitted), were not recorded in the statistics.

In essence, therefore, in the post-reform period the number of households counted (both tax paying and tax exempt) as a proportion of the total number of houses was far greater than had been the comparable statistic in the pre-reform period, and an obvious consequence was that the proportion of unrecorded households ('h' + 'i') was dramatically reduced. This situation is indicated in figure 20.

In order to consider the impact of these reforms, a House of Commons committee instructed the Revenue Office to return county-specific aggregates of the number of houses recorded by the hearth-tax collectors in 1791, and this data represents the only suitable source for estimating the population of County Wicklow in the late eighteenth century.³⁵ By this stage, the overhaul had succeeded in weeding out many of the corrupt practices in the collection process and the recording of exempt housing had been regularised.³⁶ In addition to recording more accurately than previously all houses in the county, the data presented to parliament in 1791 are more comprehensive than any previous data compiled by the Revenue Office.³⁷ Thus, for each county in Ireland the number of

houses paying the tax, categorised by the number of hearths in each house,³⁸ the number of new houses³⁹ and the number of houses exempted because of the poverty of the occupants are known. Unfortunately, however, the 1791 data, while unquestionably the best hearth tax data that is available for any year, is only available for counties, rather than baronies. Thus, if regional estimates are to be derived from this data, it can only be achieved on the basis of speculative guesswork. A summary of the County Wicklow house-count data and the data for neighbouring counties for which satisfactory 1813-5 census data was received is presented in table 24.

Table 24 – Summary of 1791 hearth tax data. The data for Kildare includes 1,431 houses which are taken from abstract returns for which no information on the number of hearth is provided.

	Number of houses containing hearths...													New	Paup.	Total
	1	2	3	4	5	6	7	8	9	10	11-20	>20				
Carlow	5,503	484	128	69	50	31	15	8	7	3	7	2	268	1,822	8,397	
Kildare	6,645	662	147	121	85	58	28	25	21	17	40	13	457	848	10,598	
Meath	17,215	1,064	238	132	104	68	44	37	16	22	59	19	987	3,126	23,131	
Wicklow	7,518	725	173	105	55	32	22	14	8	11	28	9	378	2,429	11,507	

Source: *Commons' ju. Ire.*, xv, pt 1, pp cxcvii-ccii.

The total number of houses recorded in table 24 represents segment 'g' in the taxation enumeration model, so in order to form an approximation of the number of total number of houses in County Wicklow in 1791 it is necessary to estimate the aggregate size of segments 'h' (fraud) and 'i' (legally exempt houses) (figure 20). This issue is discussed in appendix 9, where it is suggested that the 1791 house-count total returned to the House of Commons may have underestimated the actual total by between 6 and 9 per cent. It is argued, therefore, that the actual housing total in County Wicklow in 1791 was probably between 12,200 (6 per cent underestimate) and 12,500 houses (c. 9 per cent underestimate), although it is also suggested that the actual figure was likely to have been closer to the lower end of the range. These 12,200 to 12,500 houses represent the aggregation of segments 'g' (enumerated houses, or c. 11,500 (table 24)) 'h' (fraud, which is assumed to be negligible) and 'i' (legally exempt houses).

However, the focus of this chapter, thus far, has been on regional distributions rather than county-wide totals, but the 1791 house-count data contains no evidence of how the county's housing-stock may have been

distributed among the individual baronies. The only source that may be of some use in this regard, by nature of it being relatively temporally proximate, is 1813-5 census, although it is still two-decades removed from the 1791 enumeration. Thus, table 25, presents the distribution of the total housing estimate for 1791 (12,200-12,500 houses) among the various baronies, based on the proportionate distribution of houses recorded in the first statutory census, although the proviso must be entered that this distribution cannot be viewed as anything more than speculative.

Table 25 – Distribution of the housing estimates for 1791 on the basis of adjusted housing figures from the 1813-5 census (figures rounded to the nearest 10 units).

Barony	Houses			1791 figures	
	1813	1813 adj.	Distrib. (%)	Lr bound	Ur bound
Arklow	2,867	2,867	18.3	2,230	2,290
Ballinacor	3,039	3,039	19.4	2,370	2,420
Newcastle	1,877	1,877	12.0	1,460	1,500
half Rathdown	1,165	1,279	8.2	1,000	1,020
Shillelagh	1,971	1,971	12.6	1,530	1,570
Talb. Lower	1,869	1,994	12.7	1,550	1,590
Talb. Upper	2,534	2,649	16.9	2,060	2,110
Co. Wicklow	15,322	15,676	100.0	12,200	12,500

Note: the data for Rathdown, Talbotstown Lower and Talbotstown Upper have been increased in proportion to the adjusted population figures for these baronies (table 22). The lower bound and upper bound housing figures are derived by proportionately distributing the 12,200 and 12,500 housing estimates (figures from table 24, adjusted by between 6 and 9 per cent), according to the 1813-5 house distributions (which are, themselves, based on the adjusted house-counts for 1813-5).

The final step involved in generating population estimates from taxation-based source material involves using an appropriate multiplier to convert a derived housing estimate (table 25) into an estimate of population. In the case of the 1791 housing data, this involves converting the aggregation of segments ‘g’ and ‘i’ (the housing total, assuming segment ‘h’ (fraud) to have be negligible) into ‘g’ + ‘i’ + ‘j’ + ‘l’ (which represents the population total). Dickson *et al.* have produced a series of estimates for provincial mean household size for the various years, and suggest a figure of 5.9 for Leinster in 1791, based primarily on work undertaken during the 1780s by G. P. Bushe, in which he suggested a mean household size as high 6.25.⁴⁰ Thus, bearing in mind Dickson *et al.*’s figures (5.9 for Leinster), the mean household size for Wicklow reported by the 1813-5 census

(6.16, table 5) and considering that the three censuses between 1813 and 1831 consistently reported a progressive rise in the county's mean household size, it seems reasonable to presume that the mean household size in 1791 was probably lower than it had been at the time of the first statutory census. A figure of 6.0 seems reasonable, as it fits neatly into the mean household size trends for the county, which rose from 6.16 in 1813-5 to 6.41 in 1821 and 6.60 in 1831 (figure 18). Therefore, applying this multiplier for mean household size in 1791 to the house-count estimates for that year, therefore, generates speculative regional population estimates for 1791, which are presented in table 26. Although speculative, however, it is worth noting that the annual rates of regional population increase between 1791 and 1813, which range from 1.05 to 1.30 (upper bound 1791 estimate) or from 1.17 to 1.42 (lower bound 1791 estimate), while high, do not seem at all unreasonable considering the contemporary national and international population trends (appendix 4), and the rates that were suggested by the early censuses (table 23).

Table 26 – Lower and upper bound population estimates for Wicklow baronies in 1791, showing likely bounds for the annual rate of increase.

Barony	Pop. ests (1791)		Annual rate of increase, 1791-1813 (%)	
	Lr bound	Ur bound	Lr bound rate	Ur bound rate
Arklow	13,380	13,740	1.42	1.30
Ballinacor	14,220	14,520	1.18	1.09
Newcastle	8,760	9,000	1.18	1.05
Half Rathdown	6,000	6,120	1.32	1.23
Shillelagh	9,180	9,420	1.27	1.15
Talbotstown Lower	9,300	9,540	1.17	1.05
Talbotstown Upper	12,360	12,660	1.32	1.21
Co. Wicklow	73,200	75,000	1.27	1.16

Note: the 1791 upper and lower bound population figures have been derived by applying a household multiplier of 6.0 to the upper and lower bound house counts for that year (table 25). Data for Rathdown, Talbotstown Lower and Talbotstown Upper have been increased in proportion to the adjusted population figures for these baronies (table 22). The lower bound and upper bound housing figures are derived by proportionately distributing the 12,200 and 12,500 housing estimates (figures from table 24, adjusted by between 6 and 9 per cent), according to the 1813-5 house distributions (which are, themselves, based on the adjusted house-counts for 1813-5).

THE MID-EIGHTEENTH CENTURY

For the mid-eighteenth century there are two principal sources which can be used to determine local population levels in Wicklow. These are a summary of the hearth-tax collection data for the county for the year 1739 and the surviving data from a religious census conducted in early 1766, both of which are briefly discussed in the introduction and in appendices 2 and 3. The 1766 returns are the most appropriate to use for generating a mid-eighteenth century population estimate, because that data appears to be generally more accurate than the tax-based figures, but also because the 1766 census is the only source available for the pre-census period which provides an alternative to estimating on the basis of hearth-tax data. The 1739 source has been used to estimate populations where no 1766 material has survived.

Since the 1766 census aimed to enumerate the heads of households rather than total populations, the *household enumeration* model (figure 7, model 2) is the relevant model, but the process of determining a population estimate from the household-head counts, still presents significant challenges. Specifically, determining the degree of underestimation in the surviving enumerations (segment 'd' in figure 7, model 2) is open to considerable uncertainty, and the size of the multiplier, required to convert the total number of households into a population estimate, is also speculative.

Deriving barony estimates from the 1766 material presents further challenges, too, because only two Wicklow baronies (half Rathdown and Newcastle) have data – of varying character and quality – for all parishes within their bounds, and for large sweeps of territory, particularly in the south and west, little data has survived (appendix 3, figure 183). Elsewhere, only patchy coverage is available. For Ballinacor, only the northern and central parts are covered, for Arklow, data has survived for just the northern and western parts and in the two Talbotstowns and in Shillelagh only a few dispersed parish summaries are available. No data is extant for either Arklow or Carnew parishes, which contained two of the county's principal urban centres, which frustrates any attempts to examine urbanisation at a time coincident with Jacob Nevill's county survey. The character of the surviving data for Wicklow is presented in figure 183, in appendix 3.

Since County Wicklow is only partially covered, it would be useful to examine demographic trends in baronies in neighbouring counties, in order to identify regional trends, but, unfortunately, in those counties the position with regard to 1766 data is rarely better, and often worse. There are no barony-wide data for any part of Carlow or Wexford, and in the other counties, for Kildare near-complete data has survived for just two baronies, Clane and Ikethay and Oughterany, and for Dublin, only half Rathdown is well covered.

Nonetheless, the situation is not hopeless, and it has been possible to derive preliminary estimates (lower-bound and upper-bound) for some of the baronies with only incomplete coverage, by comparing the surviving 1766 household distributions with the equivalent distributions reported by the early nineteenth-century censuses (principally the 1821 and 1831 censuses) and with the 1739 hearth tax summary. The process by which preliminary barony family-numbers estimates was derived is detailed in appendix 10. Unfortunately, however, this process is only suitable for the baronies that have either total or near-total coverage, which, in the case of County Wicklow, covers only three of the seven baronies. The calculated lower-bound and upper-bound estimates for the number of families in these three Wicklow baronies, and three baronies in adjacent counties are shown in table 27.

Table 27 – Preliminary barony estimates for number of families in various baronies in Wicklow and the surrounding counties, based on 1766 census data.

County	Barony	1766 estimates, no. of families					
		Lower bound			Upper bound		
		Prot.	Pap.	Total	Prot.	Pap.	Total
Wicklow	half Rathdown	193	622	815	199	642	842
	Ballinacor	443	1,403	1,846	513	1,614	2,127
	Newcastle	307	1,071	1,378	326	1,128	1,453
Dublin	half Rathdown	418	911	1,329	435	933	1,368
Kildare	Clane	N/A.	N/A.	N/A.	42	555	502
	Ikethay and Oughterany	N/A.	N/A.	N/A.	17	618	635

See appendix 10 for sources and methodology. Note: upper and lower bound figures were derived for the Wicklow baronies, using the 1739 hearth tax summary and the 1821 census. A Dublin lower bound estimate can be derived by default because, as the Bray union lay partly in Rathdown (Dublin) the lower bound estimate for the Wicklow part of the Bray union represented an upper bound estimate for the non-Wicklow part of that union. As no equivalent survey to the 1739 hearth tax summary is available for the non-Wicklow baronies, no bounds can be determined for the Kildare baronies.

Admittedly, the accuracy of the process used to derive the estimates in table 27 (which uses sources that were compiled at some temporal remove from 1766) is open to question, but the general trends evident in the figures are unlikely to be seriously incorrect. It is notable that the ranking of the baronies – in terms of the number of families – virtually matches the equivalent rankings from both the 1813-5 and the 1821 censuses, which would not be expected if the data was particularly inaccurate (table 28).

Table 28 – Ranking of the baronies for which 1766 preliminary estimates are available, compared with rankings in 1813-5 census data (number of houses, with estimate for Newcastle) and 1821 census (number of families).

Barony	Rank, 1766	Rank, 1813-5	Rank, 1821
Half Rathdown (Wicklow)	4	4	4
Ballinacor	1	1	1
Newcastle	3	3	2
Half Rathdown (Dublin)	2	2	3
Clane	6	5	5
Ikethay and Oughterany	5	6	6

Source: Mason, *Parochial survey of Ire.*, iii, pp xxxiv, xlii, xlv; *Census Ire., 1821*, pp 20, 36, 130; *Census Ire., 1831*, pp 22, 32, 118; *Census Ire., 1841*, pp 28, 42, 140.

The lower-bound and upper-bound estimates for the number of families that would likely have been returned for six baronies in and around Wicklow from

the 1766 census (table 27) is, of course, not the same as the *total number of families* in those baronies. Instead, these preliminary estimates represent just segment 'c' in the *household enumeration* model (figure 7, model 2), but the total number of families is represented by segments 'c' + 'd'. Thus, the procedure for converting these preliminary data into population-estimate figures involves estimating the number of families which have been omitted from the enumeration (segment 'd'), which provides an estimate of the total number of households, and then applying an appropriate household-size multiplier to convert the estimate for the total number of households ('c' + 'd') into an estimate of the total population ('c' + 'd' + 'e' + 'f').

At this stage, a refinement must be introduced into the process, which revolves around assumptions that can reasonably be made about the enumeration process and more particularly about the biases of those responsible for compiling the census – the Protestant parish clergy. It seems logical to presume that the clergy would have had a more intimate knowledge of the number of Protestant families in their parishes than they would have had of its Catholic inhabitants (this point is outlined in greater detail in appendix 11).⁴¹ If this was the case, however, then the population-estimation model becomes marginally more complex, requiring that the *household enumeration* model be split into two parts; one part representing Protestant households and the second part representing Catholic households. For the Protestant part of the model, segment 'd', representing the under-enumeration of Protestant householders, approximates to zero, but for the Catholic part of the model, under-enumeration must have been a more significant issue (figure 21).

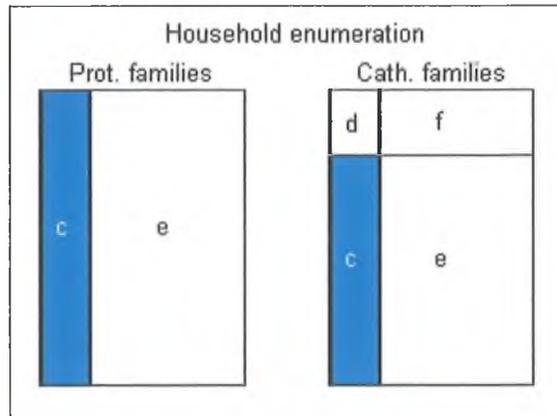


Figure 21 – Population-estimation (household-enumeration) model of the 1766 religious census, outlining assumptions with regard to the accuracy of the figures for Protestant and Catholic families.

It is impossible to accurately know the proportionate size of segment ‘d’ in the Catholic ‘household enumeration’ model, and it would have varied for each individual parish enumeration. Evidence presented in appendix 11, albeit for just two parishes, points to Catholic under-estimation of about one fifth of the total number of families in the parish but if a parish minister made any reasonable effort to accurately record a full listing of householders, then his return should be considerably more accurate than that. In fact, it does not seem unreasonable to presume that a resident, well-established and enthusiastic minister would be able to determine the number of Catholic families in his parish to within 10 per cent, or less, of the actual total. In the Wicklow region, since the majority of clergymen in all of the baronies for which estimates are presented in table 27, were both resident and long-established (appendix 3, tables 74 and 75) and as the parishes and unions were, with some exceptions, reasonably compact, a return to within 5 per cent would seem feasible. On this basis, and although this process has been very speculative, adjusted estimate-figures for the numbers of families in the various baronies are presented in table 29, with the number of Catholic families increased by 5 per cent (rounded to nearest multiple of 5).

Table 29 – Barony estimates of the number of Protestant and Papist families (figures from table 27) with number of Papist families adjusted upwards by 5 per cent (rounded to the nearest multiple of 5) for various baronies in Wicklow and the surrounding counties in 1766.

Barony	Lower bound			Upper bound			% Prot.	% Pap.
	Prot.	Pap.	Total	Prot.	Pap.	Total		
Co. Wicklow								
half Rathdown (Wick.)	193	655	848	199	675	874	22.8	77.2
Ballinacor	443	1,475	1,918	513	1,695	2,208	23.2	76.8
Newcastle	307	1,125	1,432	326	1,185	1,511	21.6	78.4
Co. Dublin								
half Rathdown (Dub.)	418	955	1,398	435	980	1,415	30.7	69.3
Co. Kildare								
Clane	N/A.	N/A.	N/A.	42	585	627	6.7	93.3
Ikethay and Oughterany	N/A.	N/A.	N/A.	17	650	667	2.5	97.5

The final stage in the process involves applying a household-size multiplier to the family counts in order to convert the adjusted estimates for the total number of Protestant and Catholic families into denominational population estimates. Earlier, it was seen that the mean household size throughout Wicklow in the early decades of the nineteenth century was exceptionally high, but it is unlikely to have been comparably high in the middle of the eighteenth century. Dickson *et al.* report the mean household size in Leinster in 1766, based on extant census returns, to have been of the order of 5.15, rising to 5.97 in 1821, an increase of *c.* 15 per cent.⁴² For Wicklow and the surrounding counties, the specific 1766 data suggests that the mean household size may have been lower than this possible provincial average, although, since the focus of the census was to enumerate households rather than people, the data for household size is sparse. In fact, extant 1766 census returns for only 43 parishes (enumerating slightly more than 5,000 families) in all of Leinster (approximately 900 parishes) provide information on the mean household size for one or both denominations, representing only a miniscule sample of the provincial situation.⁴³ Nonetheless, these few returns provide tantalising evidence of both the character and form of Protestant and Catholic households in the mid-eighteenth century, and of some of the contrasts between the denominational family units. This issue is considered in detail in appendix 12, from whence it is suggested that appropriate household-size multipliers for Protestant families in the Wicklow region at this time are of the order of 5.2, and the Catholic multiplier was probably marginally lower, at about

4.85. In reality, not too much should be made of this distinction at this stage, since the likely size of any errors in the speculative approach required to determine estimates for the number of families in the baronies (tables 28 and 29) probably exceeds the impact of any denominational distinctions with regard to household size. Nonetheless, applying these denominational multipliers to the household-count data derived earlier (table 29) produces the population estimates shown in table 30 (rounded to nearest multiple of 50).

Table 30 – Estimate of the aggregate number of people in Protestant and Catholic families in some baronies in Wicklow and the surrounding counties, based on mean household size estimates for 1766 of 5.2 for Protestant households and 4.9 for Papist households. (see appendix 12, table 90).

County	Barony	Lower bound			Upper bound		
		Prot.	Pap.	Total	Prot.	Pap.	Total
Wicklow	half Rathdown	1,000	3,200	4,200	1,050	3,300	4,350
	Ballinacor	2,300	7,250	9,550	2,650	8,300	10,950
	Newcastle	1,600	5,500	7,100	1,700	5,800	7,500
Dublin	half Rathdown	2,150	4,700	6,850	2,250	4,800	7,050
Kildare	Clane	N/A.	N/A.	N/A.	200	2,850	3,050
	Ikethay and Oughterany	N/A.	N/A.	N/A.	100	3,200	3,300

At this stage, population estimates for 1766 have been derived for just three of Wicklow's seven baronies (those with census data that covers more than 50 per cent of their populations), but for the remaining four baronies, there is insufficient 1766 material to permit a similar exercise. In appendix 10 (method 2) tentative estimates for these four baronies (Arklow, Shillelagh, Talbotstown Lower and Talbotstown Upper) and the varying methodologies used to derive them are outlined. The data that result from these operations are shown in tables 31 (estimates of the number of Protestant and Catholic families) and 32 (estimates of the number of people living in Protestant and Catholic families).

Table 31 – Estimate of the number of families in the baronies of Arklow, Shillelagh, Talbotstown Lower and Talbotstown Upper in 1766.

Barony	Lower bound			Upper bound			%	%
	Prot.	Pap.	Total	Prot.	Pap.	Total	Prot.	Pap.
Arklow	550	1,500	2,050	610	1,640	2,250	26.8	73.2
Shillelagh	410	940	1,350	440	1,010	1,450	30.4	69.6
Talb. Lr	190	1,060	1,250	200	1,150	1,350	15.2	84.8
Talb. Ur	480	1,430	1,900	510	1,540	2,050	25.3	75.3

Note: the methods by which the total number of families and the denominational distributions have been determined is outlined in appendix 10.

Table 32 – Estimate of the aggregate number of people in Protestant and Catholic families in the baronies of Arklow, Shillelagh, Talbotstown Lower and Talbotstown Upper in 1766.

Barony	Lower bound			Upper bound			%	%
	Prot.	Pap.	Total	Prot.	Pap.	Total	Prot.	Pap.
Arklow	2,850	7,350	10,200	3,150	8,050	11,200	28.1	71.9
Shillelagh	2,150	4,600	6,750	2,300	4,950	7,250	31.7	68.3
Talb. Lr	1,000	5,200	6,200	1,050	5,650	6,700	15.7	84.3
Talb. Ur	2,500	7,000	9,500	2,650	7,550	10,200	26.0	74.0

Note: see appendix 10.

Thus, tentative population estimates have now been derived for all the baronies in County Wicklow and for a handful of baronies in the surrounding counties (tables 30 and 32). It must be remembered, however, that the figures given for Protestants and ‘papists’ are estimates of the number of people living in Protestant and Catholic households, as distinct from the actual number of Protestants and Catholics. But members of households were not necessarily of the same religion as the household head, and this was particularly the case within Protestant households, which often contained Catholic servants (appendix 12). Thus, the actual Protestant population was almost certainly lower than the figures implied by the ‘Prot.’ columns (tables 30 and 32). Unfortunately, however, it is difficult to derive estimates for the total number of Protestants and Catholics within the baronies since there is no surviving data available for any Wicklow parish which provides evidence of the number of Catholics inhabiting Protestant families. Even within the entire province of Leinster, this data is only available for a handful of parishes, but within these, Catholics account for more than 30 per cent of the total number of people occupying Protestant houses (see appendix 13). Although the equivalent statistic for Wicklow Protestant houses can never be accurately ascertained it would seem unlikely that less than one in ten persons in

Protestant houses in the county, was Catholic. If this proportion is assumed (and it is nothing more than an educated guess, based on a suspicion that the 30 per cent in a sample of Leinster parishes is unlikely to be representative) then the likely denominational breakdown in the county's baronies in 1766 is shown by table 33.

Table 33 – Tentative denominational breakdown estimates for Wicklow baronies (and half Rathdown (Dublin)) in 1766.

Barony	Lower bound			Upper bound			% Prot.	% Pap.
	Prot.	Cath.	Total	Prot.	Cath.	Total		
Wicklow								
Ballinacor	2,070	7,480	9,550	2,385	8,565	10,950	21.8	78.2
Newcastle	1,440	5,660	7,100	1,530	5,970	7,500	20.4	79.6
Half Rathdown	900	3,300	4,200	945	3,405	4,350	21.7	78.3
Arklow	2,565	7,635	10,200	2,835	8,365	11,200	25.3	74.7
Shillelagh	1,935	4,815	6,750	2,070	5,180	7,250	28.6	71.4
Talbotstown Lr	900	5,300	6,200	945	5,755	6,700	14.1	85.9
Talbotstown Ur	2,250	7,250	9,500	2,385	7,815	10,200	23.4	76.6
County total	12,060	41,440	53,500	13,095	45,055	58,150	22.5	77.5
Dublin								
Half Rathdown	1,935	4,915	6,850	2,025	5,025	7,050	28.2	71.8

Note: these figures are based on the data presented in tables 30 & 32, but include an estimate of the number of Catholics inhabiting houses in which the householder was Protestant.

These figures suggest a substantial Protestant population, which was distributed fairly uniformly throughout the county. Talbotstown Lower (north-west Wicklow), appears likely to have been the barony where Protestant settlement was weakest but in all other areas between one in five and one in four persons was probably Protestant, and in Shillelagh, where the Wentworth family had historically, vigorously encouraged Protestant settlement, Protestants may have accounted for almost one in three of the total population of the barony at this time.

Since the method used for determining denominational estimates from the 1766 data has been speculative, relying on statistical approximations and presumptions, it is important to conclude by considering the likely accuracy of the figures that have been derived. In table 26, the lower and upper bound population estimates for 1791 were presented, and comparing these with the 1766 estimates can give some indication of the quality of the earlier figure. Dickson *et al.* have suggested a population increase in Leinster of between 43 to 66 per cent between

1753 and 1791, which can be taken as a guideline figure.⁴⁴ In table 34 calculations of likely bounds on the proportionate increase in regional populations between 1766 and 1791 are presented, all of which are generally smaller than Dickson *et al.*'s implied figures. This lends some credence to the derived population estimates.

Table 34 – Proportionate increase in population in Wicklow baronies between 1766 and 1791 based on the population estimates presented in tables 30 and 31.

Barony	Proportionate increase in population (1766-91)		
	Minimum increase, 1766 (upper bound) – 1791 (lower bound)	Maximum increase, 1766 (lower bound) – 1791 (upper bound)	Mean increase, 1766 (mean est.) – 1791 (mean est.)
Arklow	19%	35%	27%
Ballinacor	30%	52%	40%
Newcastle	17%	27%	22%
half Rathdown	38%	46%	42%
Shillelagh	27%	40%	33%
Talb. Lower	39%	54%	46%
Talb. Upper	21%	33%	27%
Co. Wicklow	26%	40%	33%
Leinster (1753-91)	44%	66%	54%

Note: as the 1766 and 1791 estimates were calculated on the basis of lower and upper bounds, then the maximum rate of population growth is the rate of growth from the lower bound in 1766 to the upper bound in 1791 and vice versa. Leinster figures are for 1753-91 (source: Dickson *et al.*, 'Hearth tax, household size and Irish population change', p. 155, tables 26 and 33).

Some notable trends are unmistakable. Newcastle and Arklow, two contiguous, maritime baronies appear to have experienced the lowest rates of population growth in the latter third of the century, whilst the northern part of the county (Rathdown and Talbotstown Lower) and mountainous Ballinacor experienced above-average rates of increase. A clear north-south split is evident in the data too, with baronies closest to Dublin apparently experiencing rapid population growth whilst growth in areas further from the capital was more modest. The half barony of Rathdown again emerges as an area of very rapidly growing population in the years after 1766. Thus, while the rates of increase in other baronies in the county appear to have fluctuated over the decades between 1766 and 1841 (tables 20 and 26), Rathdown consistently experienced above average population growth-rates during the same period. This is probably because

of its proximate location to Dublin, as the Dublin part of the barony similarly experienced consistently rapid growth.⁴⁵

THE EARLY-EIGHTEENTH CENTURY

Previous to 1766, a religious census had also been held in 1732-3, but in that instance the enumerating officers were the hearth-tax collectors rather than parish clergymen. The early 1730s had witnessed a heightened interest in the relative strength of Catholicism and a number of inquiries were conducted coincident with this census, including an inquiry into the state of Popery, in 1731.⁴⁶ The county-aggregate returns from this census were published anonymously in 1736 by David Bindon, M.P for Ennis,⁴⁷ but barony data have survived in manuscript form for many parts of the country, including for County Wicklow. The Wicklow data are presented in table 35.⁴⁸

Table 35 – Number of Protestant and Catholic families per barony reported by the 1732-3 hearth-tax census.

Barony	Prot.	Pap.	Total	% Prot.	% Cath.
Arklow	520	1,161	1,681	30.9	69.1
Ballinacor	417	953	1,370	30.4	69.6
Newcastle	390	719	1,109	35.2	64.8
half Rathdown (Wick.)	232	379	611	38.0	62.0
Shillelagh	314	726	1,040	30.2	69.8
Talbotstown	660	1,322	1,982	33.3	66.7
Co. Wicklow	2,533	5,260	7,793	32.5	67.5
half Rathdown (Dub.)	276	395	671	41.1	58.9

Source: Abstract of the number of Protestant and Popish families as returned to the Hearth money Office anno 1732 (Lambeth Palace Library, MS. 1742, f. 46).

Like the 1766 census, this enumeration aimed to count householders rather than people, although in this case, since the enumerating officials were revenue officials, it was only households that paid hearth tax that were likely to be counted. Furthermore, and as was shown to be the case in 1766, Protestant households in 1731-2 often contained Catholic members, and so, the actual Protestant proportion of the population must have been less than the denominational breakdowns shown in table 35. In spite of this, however, the contrast between these statistics and the denominational statistics that were derived for 1766 (table 33) is stark. In 1766 it is unlikely that for any Wicklow

barony, the Protestant proportion of all families exceeded 30 per cent and for most baronies, the proportion was probably closer to 20 or 25 per cent. Also, in 1766, the southern baronies of Shillelagh, Talbotstown Lower and Arklow appear to have been the places where Protestantism was strongest. In 1732-3, however, Newcastle and Rathdown, in the north and east of the county, emerge as the areas where the relative strength of Protestants was most impressive.

Comparing the nominal data reported in these two religious censuses presents further difficulties. In most instances, the increase in Protestant families between 1732 and 1766 appears to have been minimal, and in Newcastle and Rathdown the total number of Protestants may have actually declined. Only in Shillelagh was a substantial Protestant advance evident. For the Catholic population, however, the position was much different; Catholic families appear to have increased significantly throughout the county, and in the north-east and the west of the county this increase was dramatic. Even in Arklow and Shillelagh, two regions where the Catholic advance was most muted, increases of at least 30 per cent were, nonetheless, reported. The contrasting data is shown in figure 36.

Table 36 – Proportionate increase in Protestant and Catholic families, 1732-66.

	Protestants		Papists	
	Min. inc.	Max. inc.	Min. inc.	Max. inc.
Arklow	5.8%	17.3%	29.2%	41.3%
Ballinacor	6.2%	23.0%	54.8%	77.9%
Newcastle	-21.3%	-16.4%	56.5%	64.8%
half Rathdown (Wicklow)	-16.8%	-14.2%	72.8%	78.1%
Shillelagh	30.6%	40.1%	29.5%	39.1%
Talbotstown	1.5%	7.6%	88.4%	103.5%
County	1.6%	10.5%	55.6%	69.1%
half Rathdown (Dublin)	51.4%	57.6%	141.8%	148.1%

Dickson *et al.* have critically examined the 1732 data and suggest that the national returns require an upward adjustment of between *c.* 14 (lower bound) and *c.* 34 (upper bound) per cent.⁴⁹ If the methods they employed are applied to the Wicklow barony figures even higher adjustment bounds, ranging from 14 per cent (lower bound) to *c.* 40 per cent are required.⁵⁰ Adjusted house-counts, based on these boundary levels of under-enumeration of households, are shown in table 37, in the two middle (deficient by ...) columns.

Table 37 – Upper and lower bound estimates for the Wicklow baronies, 1732-3.

Barony	Houses		Deficient by (14-40%)		Tot. no. of families	
	Prots	Paps	lr bnd	ur bnd	lr bnd	ur bnd
Arklow	520	1,161	235	672	1,916	2,353
Ballinacor	417	953	192	548	1,562	1,918
Newcastle	390	719	155	444	1,264	1,553
half Rathdown (Wick.)	232	379	86	244	697	855
Shillelagh	314	726	146	416	1,186	1,456
Talbotstown	660	1,322	277	793	2,259	2,775
County	2,533	5,260	1,091	3,117	8,884	10,910
half Rathdown (Dub.)	276	395	94	268	765	939

Note: estimates of lower and upper bound deficiencies based on Dickson *et al.*'s methodology (Dickson *et al.*, 'Hearth tax', pp 146-50) which, for County Wicklow, suggest a deficiency of between *circa* 14 - 40 per cent (see footnote 50).

The question then arises as to how these deficient households should be distributed among the two denominations. It is probable that Catholic families accounted for a disproportionately high number of the deficiencies in the taxation returns, for a number of reasons. Catholics were, for instance, proportionately more likely to be legally exempt from the tax, by dint of their fulfilling some of the specified exemption criteria and were also more inclined to be living in remote locations or dispersed settlements, making it more difficult to both tax and enumerate them.⁵¹ Additionally, it seems more likely that Catholics would either have ignored or attempted to avoid enumeration, rather than have enthusiastically participated in the operation. The number of families recorded as Protestants may also have been exaggerated, which would have further impacted on the relative strengths reported for both denominations. Some Catholics, for example, may have conspired to pass themselves off as Protestants, particularly if they were suspicious of the motives of the tax collector or were seeking official employment, while other families may have been only nominally Protestant in 1732, and may have become Catholics in the ensuing three decades.⁵²

Because of these uncertainties, determining how to distribute the deficiency among the denominational groups is challenging. Supporting evidence is scant, although contemporaneous religious censuses conducted by parish clergymen in Ossory (1731) and north-west Antrim (1734) provide some

guidance. Specifically, these two surveys suggest that, for Kilkenny, the hearth-tax collectors underestimated Protestant families by about 25 per cent, but for Antrim the underestimation of Protestants was much higher, at about 75 per cent (see appendix 15). Contrasting wealth profiles for the Protestant communities in these two areas may account for this huge discrepancy. In Kilkenny, where Protestants were relatively few, most Protestant families would have occupied the middle and upper levels of the wealth pyramid, thereby implying a qualification to pay the tax, but in Antrim, where Protestants formed a significant majority of the population, Protestant families were distributed more evenly through the social spectrum, meaning that a larger proportion of them would have been exempt from the tax.

In the absence of any further appropriate indicators, it seems most reasonable to assume a deficiency of about 25 per cent for Wicklow's Protestant families in the 1732-3 census, simply because the county's denominational profile was closer to Kilkenny's, than to Antrim's. Despite Wicklow having a relatively higher proportion of Protestants than inhabited Kilkenny, in no Wicklow barony were Protestants a majority of the population, unlike the denominational profiles which prevailed in Antrim. An omission rate of 25 per cent in the number of Protestant families also supports the assumptions, outlined above, concerning the likely disproportionate underestimation in the number of Catholic families in the census. Table 38 shows adjusted denominational details (from table 37) for Wicklow for 1732-3, based on an assumed deficiency of 25 per cent in Protestant numbers. Having estimated the deficiency in Protestant families, the adjusted figures for Catholic families are simply the difference between the total deficiency (table 37) and the associated Protestant figure.

Table 38 – Adjusted estimate of the number of Protestant and Catholic families, from the 1732-3 hearth tax census.

Barony	Prots, adj. (+ c. 25 %)	Paps, adj. (lr bound)	Paps, adj. (ur bound)	% Prot., range	% Pap., range
Arklow	650	1,266	1,703	28-34	66-72
Ballinacor	522	1,040	1,396	27-33	67-73
Newcastle	490	774	1,063	32-39	61-68
half Rathdown (Wicklow)	292	405	563	34-42	58-66
Shillelagh	394	792	1,062	27-33	67-73
Talbotstown	825	1,434	1,950	30-37	63-70
Co. Wicklow	3,168	5,716	7,742	29-36	64-71
half Rathdown (Dublin)	346	419	593	37-45	55-63

Note: figures based on data in table 37, with the number of Protestant families adjusted upwards by c. 25 per cent. The number of Catholic families has been adjusted upwards by the difference between the total adjustment (table 37) and the adjustment for Protestants.

But these adjusted estimates for the number of Protestant and Catholic families in the early 1730s suggest that the decline in the number of Protestant families between 1732-3 and 1766 was even greater than had implied by the figures presented earlier (table 36). The 1766 estimates for the number of Protestant families in the county in 1766 ranged from 2,575 to 2,800, whilst the number of Catholic families ranged from approximately 8,200 to 8,900 (tables 29 and 31), but now is seen that the 1732-3 census reports that the number of Protestant families was perhaps approximately 3,150, implying a decline of between 350 and 600 families (12 to 20 per cent) in the county in the three decades after 1732. At the same time, the number of Catholic families was increasing substantially, advancing by perhaps 3,000 (tables 29, 31 and 38).⁵³ It seems highly likely, therefore, that, as similarly occurred in the diocese of Ossory (appendix 14), Protestantism declined in Wicklow, both in absolute and relative terms, during the middle decades of the eighteenth century, a startling finding.

Having derived estimates for the number of Protestant and Catholic families in the county in 1732-3, population estimates can be determined by applying an appropriate multiplier, representing the mean household size (figure 7, model 2). It is possible that two multipliers – one for Catholic families and one for Protestant families – is appropriate (this was earlier employed for the 1766

material), but this is less clear for the 1732-3 period, because of the general unavailability of source material. It does seem likely that mean household size was less in 1732-3 than in 1766, but even this hypothesis is far from certain.⁵⁴ The issue of the possible size of denominational multipliers in 1732-3 is discussed in appendix 16, where multipliers of 5.0 for Protestants and 4.7 for Catholics are proposed, subject to the proviso that the hypothesised denominational conditions within households in 1766, which assumed that for every ten persons inhabiting Protestant houses, one was likely to have been a Catholic, was probably similarly reflected in 1732-3.⁵⁵ By applying these assumptions, the likely denominational population breakdown within each Wicklow barony in 1732-3 is given in table 39.

Table 39 – Estimates of the number of people living in Protestant and Catholic houses and the total number of Protestants and Catholics in Wicklow (and Rathdown, Dublin) in 1732-3.

Barony	People in houses			Denominational estimates				
	Prots	Caths, lr bound	Caths, ur bound	Prots	Caths, lr bound	Caths, ur bound	% Prots (range)	% Caths (range)
Arklow	3,250	5,950	8,005	2,930	6,280	8,330	26 - 32	68 - 74
Ballinacor	2,610	4,885	6,560	2,350	5,150	6,820	26 - 31	69 - 74
Newcastle	2,450	3,640	4,995	2,210	3,890	5,240	30 - 36	64 - 70
half Rathdown	1,460	1,900	2,650	1,310	2,050	2,800	32 - 39	61 - 68
Shillelagh	1,970	3,720	4,990	1,770	3,920	5,190	25 - 31	69 - 75
Talbotstown	4,125	6,740	9,165	3,710	7,150	9,580	28 - 34	66 - 72
Co. Wicklow	15,840	26,865	36,390	14,260	28,450	37,970	27 - 33	67 - 73
half Rathdown (Dub.)	1,730	1,970	2,790	1,560	2,140	2,960	35 - 42	58 - 65

Note: these figures are based on the house-count figures presented in table 38, assuming a MHS of 5.0 for Protestant households and a MHS of 4.7 for Catholic households, and includes a presumption that 10 per cent of the inhabitants of Protestant houses were Catholics.

THE POST-RESTORATION SEVENTEENTH CENTURY

Moving further back in time, towards the seventeenth century, the opportunities for population estimation narrow considerably, and no suitable source for generating barony estimates of population levels in the county (or for any other county) for the late seventeenth or early eighteenth centuries has survived.⁵⁶ The only surviving hearth tax data for this period dates from 1706, coinciding with the time when direct collection by the state was being reintroduced (1705-6), following four decades of farming.⁵⁷ Since the 1706 figures

appear to date from the first year of direct collection they are almost certainly highly deficient. Contemporary tax-collection methodologies required the progressive build-up of knowledge about local populations, and since the state had not been involved in the collection process for decades, the ability to effectively and thoroughly tax the population would have been restricted. This difficulty was manifested towards the end of the century when Gervais Bushe's structural reforms were still weeding out serial tax defaulters a number of years after the commencement of new collection methodologies (appendix 9). In spite of this, however, it seems likely that the 1706 data for County Wicklow may be, by good fortune, reasonably accurate, and that the county population at that time may have been in the region of 36,000 to 40,000. The method by which this estimate was derived is outlined in appendix 17.

Four decades previous to 1706, a partially complete hearth roll, dating from 1668-9, provides the earliest opportunity to generate population estimates for County Wicklow. The original roll has been lost, and all that remains are a number of, slightly differing, transcripts of the original, for the baronies of Ballinacor, Newcastle, Rathdown and Arklow.⁵⁸ No householders' names are available for either Shillelagh or the two Talbotstowns. An abstract of the original roll, made by William Monck Mason, listing, by townland, the names of householders, and the number of hearths, in multi-hearth houses and the number of houses with either one hearth or with no hearths, was published in the 1930s by Liam Price.⁵⁹ This abstract covers the entire county, including Shillelagh and Talbotstown Lower and Upper, although two skins from the original roll, covering the parishes of Blessington, Burgage, Boystown and Kilbride, in the north-west, had been lost before Monck Mason made his abstract.⁶⁰ The roll records 2,319 names in Rathdown, Newcastle, Ballinacor and Arklow and the published abstract records a further 1,347 taxpayers in the baronies of Shillelagh and Talbotstown. The missing data for the parishes in the north-west of the county would probably have accounted for *circa* 150 taxpayers, suggesting that approximately 3,800 persons were paying the tax in 1668-9.⁶¹

The likely accuracy of this roll is considered in appendix 18, where it is suggested that a best guess as to the extent of deficiency in the house-count is of

the order of between 28 and 40 per cent. Of course, this represents an aggregation of all the regional deficiencies in the county, and appendix 20 (table 98), considers the possible ranges for the rates of deficiency for each of the baronies within the county. Based on the regional ranges outlined in appendix 20, estimates for the number of houses in each barony in the county in 1668-9 are given in table 40.

Table 40 – Upper and lower bound estimates (bold type) for the total number of houses in the baronies in Wicklow, 1668, calculated from the hearth tax roll.

Barony	Data reported in the roll				Est. of no. of houses		Deficiency in roll	
	Hearths ...			Total	Min.	Max.	Min.	Max.
Arklow	82	600	87	769	885	960	15%	25%
Ballinacor	53	197	418	668	870	935	30%	40%
Newcastle	55	247	300	602	755	815	25%	35%
Rathdown	32	87	161	280	350	380	25%	35%
Shillelagh	41	289	221	551	635	690	15%	25%
Talbotstown	47	139	610	946	1,185	1,275	25%	35%
Co. Wicklow	310	1,559	1,797	3,816	4,885	5,340	28%	40%
County total.	N/A.	N/A.	N/A.	N/A.	4,680	5,055	N/A.	N/A.

Source: Hearth money roll, Wicklow, 1669 (Genealogical Office, MS G.O. 667); Price, 'Hearth money roll, County Wicklow' (*R.S.A.I. Jn.*, lxi, pt. ii (1931), pp 164-78). Note: the 'County Wicklow' figures are calculations of the lower and upper bounds, based on the 28 – 40 per cent deficiency range that was calculated in appendix 19. The 'Co. Wicklow' figures are aggregates of the individual lower and upper bound estimates for each of the individual baronies. The difference between the two sets of figures (c. 5 per cent) is comfortably small, suggesting that the varying methods employed (appendix 19 and 20) appear to have succeeded in produced reasonably accurate population estimates.

If the mean household size in each individual barony in 1668 is assumed to be 5.0 (the same figure was used for the 1706 house-numbers estimate), then population estimates for each barony emerge, which are shown in table 41. It is certain that the mean household size would not have been uniform across all baronies, but in the absence of any hard evidence for the actual size of households in mid-seventeenth century Wicklow any speculation about regional variations would be unjustifiable.

Table 41 – Upper and lower bound regional population estimates for County Wicklow in 1668-9, calculated from the housing estimates presented in table 40.

Barony	Lower bound	Upper bound	% of total population
Arklow	4,425	4,800	18.9
Ballinacor	4,350	4,675	18.6
Newcastle	3,775	4,075	16.1
Rathdown	1,750	1,900	7.5
Shillelagh	3,175	3,450	13.6
Talbotstown	5,925	6,375	25.3
Co. Wicklow	24,425	26,700	
County total	23,400	25,275	

Note: the County Wicklow figures are derived from the house count figures for the county in table 40 and the county total figures are the aggregation of the lower and upper bounds for the individual baronies.

The broad view of Wicklow's post-restoration demography

In this chapter, various sources have been critically examined and a handful of fairly evenly spaced snapshot population estimates have been generated for a period spanning almost 200 years, subsequent to the Restoration, and for two of these (1732-3 and 1766) estimates of confessional distributions were also generated. These various estimates are summarised in table 42, and in figure 22.

Table 42 – Snapshot population-estimates for County Wicklow, 1660-1841.

Year	Protestants (est.)		Catholics (est.)		Total (est.)		Pop. change p.a. (from previous est.)	Protestant
	Lower	Upper	Lower	Upper	Lower	Upper		
1668					23,400	25,275		
1706					36,000	40,000	1.1%	
1732	14,260	14,260	28,450	37,970	42,710	52,230	0.7%	C. 30 %
1766	12,060	13,095	41,440	45,055	53,500	58,150	0.7%	C. 22 %
1791					73,200	75,000	1.3%	
1813					96,600		1.3%	
1821					110,767		1.7%	
1831	26,765		91,189		121,557		0.9%	C. 22 %
1841					126,143		0.4%	

Note: the denominational figures for 1831 have been calculated from the *Comm. of public instruction, Ire., first report, H.C. 1835, vol. xxxiii*, and total to only 117,954, rather than 121,555. This is because the figures were published on a diocese/parish basis rather than a county/barony basis. As the figures are included just for comparison purposes, in cases where parishes lie in two or more counties, their data has been excluded. Nonetheless, the relative decline in the Protestant population (from approximately one third of the county population in 1732 to slightly over one fifth of the total population in 1831) in the years after 1732 can be clearly seen.

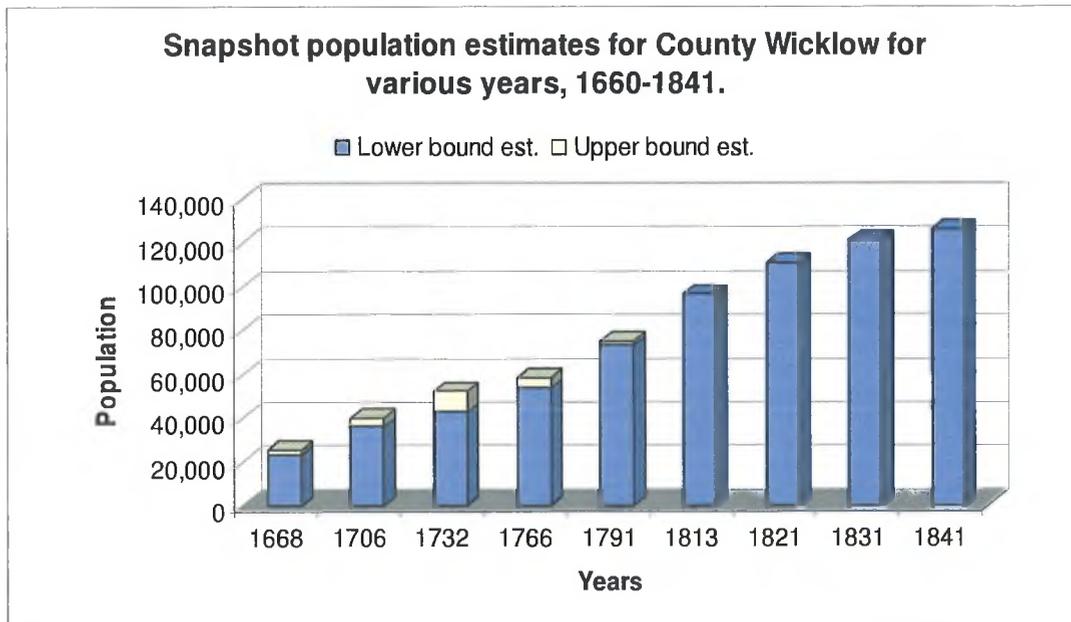


Figure 22 – Snapshot population-estimates for County Wicklow, 1660-1841.

But the problem with snapshot estimates is that they contain no information on population-trends intermediate to the various snapshots, and can

fail to identify dramatic fluctuations in the interim periods. Thus, while figure 22 presents an impression of a steady, inexorable rise in the population of Wicklow between 1660 and 1841, this increase occurred against the backdrop of an oscillating socio-economic pendulum, which periodically tempered growth, and at times even reversed it, but widely spaced population snapshots, such as those presented here, are, by their nature, blind to such fluctuations.

Population growth was most rapid in the period between 1760 and about 1831, driven by the developing communications network, which was outlined in chapter one, and an expanding economy, which will be considered in chapter four. The summary data presented in table 42 suggests that mean growth rates of approximately 1.5 per cent per annum were manifested through five or six decades after 1766.⁶² For the earlier period only three estimates are available, previous to 1766.

Comparison between the county figures for Wicklow and general national trends is problematic as Dickson *et al.*'s various snapshot figures – the best working estimates currently available for pre-nineteenth century Irish population levels – are for different years to the years for which Wicklow's population has been estimated. Dickson *et al.* provide six national estimates for the first half of the eighteenth century, for example, but it was only possible to determine two estimates for County Wicklow for the same period.⁶³ Thus, while three national estimates for the 1730s and 1740s facilitate an examination of the impact of the 1739-41 famine nationally, for Wicklow, the data for 1732 and 1766 (figure 22) only propose population advance between those years.⁶⁴ It is clear, therefore, that the course of population change in County Wicklow between 1660 and 1840 was considerably more complex than is evident from the few estimates shown in figure 22. By way of rough comparison, however, Dickson *et al.*'s figures imply a mean annual increase of 1.19 per cent between 1706 (lower bound) and 1821 while the equivalent Wicklow figure is almost equal, at 1.0 per cent.

Despite the limitations of the Wicklow snapshots, however, two notable features deserve comment. First, although the Protestant community in the pre-Restoration period was weak, as was evidenced from Bulkeley's 1630 visitation, by 1732 the Protestant population had risen to as high as one in three of

the entire county population. Between 1732 and 1766, however, this inexorable rise was halted and the Protestant interest fell back to about one in five, a level which was maintained until the 1830s. Secondly, during the course of almost two centuries, after 1660, the rank order and the relative size of the barony populations remained virtually unchanged. It would be reasonable to expect relative population levels to remain the same in the short term (over one, or perhaps two, generations, for instance), but in this case, regional stability was maintained in the long run. The 1668 barony distributions, for instance, differ only marginally both from the equivalent distributions calculated from hearth tax data compiled in 1732 – more than six decades later – and from the population estimates reported from the 1841 census, a century and three quarters removed (table 43).

Table 43 – Relative size of barony populations, 1668, 1732, 1813 and 1841.

Barony	% of total population of the county,			
	in 1668	in 1732	in 1813-5	in 1841
Arklow	18.9	21.5	18.9	20.2
Ballinacor	18.6	17.6	19.1	20.5
Newcastle	16.1	14.3	11.7	13.1
Rathdown	7.5	7.9	8.3	9.1
Shillelagh	13.6	13.3	12.5	11.2
Talbotstown	25.3	25.4	29.5	25.9

Note: the 1732 percentages are calculated from the barony population distributions presented in table 39, the 1813 figures are from table 22 and the 1841 figures are calculated from table 19.

Apparently, therefore, despite it being noted that County Wicklow was more an amalgam of distinct regions rather than a valid administrative unit, nonetheless the maritime north-east (Newcastle and Rathdown), the south-east (Arklow), the south-west (Shillelagh), the west (Talbotstown) and the mountains (Ballinacor) – all experienced broadly similar rates of population growth during the course of two centuries after 1660. The most significant difference between the 1668 and 1732 statistics, for example, is for Arklow barony (just 2.6 per cent), the tax data of which was judged to be the most accurate and was increased by the smallest amount (appendix 20).

References, chapter 2

¹ Gurrin, 'No country for young men', pp 173-202.

² Lee, 'Accuracy of pre-Famine Irish censuses', p. 46.

³ The barony was an administrative unit of considerable importance in the nineteenth century and so the possibility of boundary confusion with regard to baronies was unlikely.

⁴ The 1821 census reported 2,112 houses and 13,298 people in the barony of Newcastle, and the figures for the county were 17,289 houses and 110,767 persons respectively. Thus Newcastle barony contained approximately 12.25 per cent of the housing stock and 12 per cent of the population of the county. The proportionate size of the population and the number of houses in the other baronies, as recorded in 1821, were very close to the proportions reported in the 1813-5 census as is shown in the table.

	1813-5		1821	
	% of entire county excl. Newcastle (houses)	% of entire county excl. Newcastle (people)	% of entire county excl. Newcastle (houses)	% of entire county excl. Newcastle (people)
Arklow	21.3	22.0	20.3	21.0
Ballinacor	22.6	22.2	22.9	22.0
Rathdown	8.7	8.8	9.6	9.5
Shillelagh	14.7	14.6	14.8	14.2
Talbotstown Lower	13.9	13.5	13.6	14.1
Talbotstown Upper	18.9	19.0	18.8	19.3
County total	100.0	100.0	100.0	100.0

It seems likely, therefore, that had Newcastle been enumerated in 1813 the barony would have been found to contain a similar proportion of houses and population as was reported by the 1821 census. Thus, if the 1821 census proportions (12.25 per cent of the county's houses and 12 per cent of its population) are applied to the 1813-5 census figures an estimated figure for Newcastle of c. 1,900 houses and 11,350 people emerges.

⁵ There are various measures of the size of 'coresident domestic groups' that can be used to analyse historical family and household structure. For instance, F. J. Carney suggested three appropriate measures of the size of co-resident domestic groups which can be useful for examining typical census-type data:

- family size (all the members of a household related by blood or marriage).
- household size (all the members of a household directly or indirectly related plus their servants)
- houseful size (the total number of all inhabitants in a house, including 'inmates')

Surviving census material for County Wicklow is insufficiently detailed to provide the opportunity to distinguish between members of families, members of households and members of housefuls. Thus, for the purposes of the analysis conducted in this chapter, the average number of people per house (termed the houseful size by Carney) will be the measure most widely applied. Since the source material does not permit the distinction between 'houseful's and 'household's, the term 'mean household size' (abbreviated to MHS) will be used to describe the total number of people divided by the total number of houses (Carney's houseful) This is a fairly crude figure (Laslett terms it the 'crude mean size of domestic group') and it could be grossly skewed by the presence of institutions such as hospitals or workhouses. However, since this census pre-dated the introduction of a Poor Law, the potential impact of this factor is reduced.

(F. J. Carney, 'Aspects of pre-famine Irish household size: composition and differentials' in L. M. Cullen and T. C. Smout (ed.), *Comparative aspects of Scottish and Irish economic and social history, 1600-1900* (Edinburgh, n.d.), pp 32-5).

⁶ Cullen, *Emergence of modern Ireland*, p. 210.

⁷ Fraser, *General view of Wicklow*, p. 240. The other authors of the Dublin Society statistical surveys presumed various mean household sizes when compiling their county surveys. Mean household sizes of between 5.0 and 5.5 were used for Leitrim (5.0) (James McParlan, *Statistical survey of the County Leitrim* (Dublin, 1802), p. 62), Mayo (5.0) (idem, *Statistical survey of the County of Mayo* (Dublin, 1802), p. 82) and Down (5.25, based on a survey of Annahilt parish) (Dubourdieu, *Statistical survey of county Down*, pp 243, 244). Mean household sizes of between

5.5 and 6.0 were reported for Antrim (5.5) (John Dubourdieu, *Statistical survey of the County of Antrim* (Dublin, 1812), p. 441), 5.7 per house in Armagh (Charles Coote, *Statistical survey of the County of Armagh* (Dublin, 1804), p. 246), Kilkenny (5.8) (William Tighe, *Statistical observations relative to the County of Kilkenny* (Dublin, 1802), p. 461 (hereinafter cited as Tighe, *Statistical observations, County Kilkenny*)), 'at six to a house' for Forth and Bargie in Wexford (Robert Fraser, *Statistical survey of the County of Wexford* (Dublin, 1807), p. 75), 'we cannot be far from the truth in fixing it at six' in Cork (Horatio Townsend, *A general and statistical survey of the County of Cork* (Dublin, 1810), pp 86-7), at 6.0 in Loughtee and Tullaghgarvey baronies in County Cavan (Charles Coote, *Statistical survey of the County of Cavan* (Dublin, 1802), pp 90, 140) and 6.0 for Galway town and liberties (Hely Dutton, *A statistical and agricultural survey of the County of Galway* (Dublin, 1824), p. 193 (hereinafter cited as Dutton, *Statistical survey of Galway*)). Mean household sizes exceeding 6.0 were suggested for the Tyrone survey ('rather exceeds six' (John McEvoy, *Statistical survey of the County of Tyrone* (Dublin, 1802), p. 142) and for Clare ('at least 6 ½, some 7 ½', Hely Dutton, *Statistical survey of the County of Clare* (Dublin, 1808), p. 168 (based on information from the Catholic clergy)).

No mean household sizes were provided for Dublin (Joseph Archer, *Statistical survey of the County Dublin* (Dublin, 1801), pp 80-1), Donegal (McParlan, *Statistical survey of the County of Donegal* (Dublin, 1802), p. 63), Londonderry (Vaughan Sampson, *Statistical survey of the County of Londonderry* (Dublin, 1802), pp 280-9), Monaghan (Charles Coote, *Statistical survey of the County of Monaghan* (Dublin, 1801), King's County (idem, *General view of the agriculture and manufactures of the King's County* (Dublin, 1801) or Queen's County (idem, *General view of the agriculture and manufactures of the Queen's County* (Dublin, 1801)).

The Roscommon survey was published in 1832 and hence contains 1821 census data (Isaac Weld, *Statistical survey of the county of Roscommon* (Dublin, 1832), pp 601-8.

⁸ A survey of Castlemacadam parish in the barony of Arklow conducted c. 1800 reported a parish population of 2,912 occupying 534 houses, implying a mean household size of 5.45, Fraser, *General view of Wicklow*, p. 101.

⁹ John Post, *The last great subsistence crisis in the western world* (Baltimore, 1977), pp 72-3.

¹⁰ Lee estimated that as many as 400,000 people may have been missing from the 1821 national enumeration of approximately 6.8 million people (Lee, 'Accuracy of pre-Famine Irish censuses', p. 54). At least some of these 400,000 'virtual' people must have been missing from the Wicklow enumeration. If it was hypothesised that the 400,000 persons were distributed proportionately around the country, then almost 6,500 people would have avoided the census enumerators in Wicklow.

¹¹ Perhaps this says something about the criterion by which Mason judged returns to be acceptable. Of course it is possible that the barony was accurately surveyed. However, it is equally possible that Mason was determining whether returns were correct or not on a more questionable basis. The Longford barony returns, already detailed, were considered as 'incorrect' but there was a minor error made in the calculation of the barony totals, and all columns were not fully completed and it seems reasonable that one or other of these accounted for Mason's rejection of the returns. Although one cannot be certain, it is possible that Mason's judgments were based on the method of presentation of the data or on arithmetic integrity, rather than reflecting his views on the accuracy of the enumeration.

¹² Lee, 'Accuracy of pre-Famine Irish censuses', p. 54.

¹³ Lee, 'Accuracy of pre-Famine Irish censuses', p. 52; British mean household size statistics from censuses of 1801, 1811, 1821, 1831 and 1841 are shown in the table below. Note that only Scotland had mean household sizes comparable (and even exceeding) those of Ireland. However, there appears to have been some confusion over what constituted a 'house' in the Scottish censuses ('With respect to the Return of Houses for Scotland, a comparison with the Returns of 1831 has been rendered impracticable, owing to a misconstruction of directions on the part of many of the enumerators, and the peculiar difficulties attending the proper discrimination of *houses* from *tenements*' and 'it will be seen that in most cases throughout Scotland flats, apartments, and families have been reckoned and returned as distinct houses') (*Abstract of the answers and returns ... enumeration abstract*, H.C. 1843 (496), xxii, preface, p. 7.

Administrative region	Year	Inhab. Houses	Population	MHS
England	1801	1,467,870	8,331,434	5.68
	1811	1,678,106	9,538,827	5.68
	1821	1,951,973	11,261,437	5.77
	1831	2,326,022	13,091,005	5.63
	1841	2,753,295	14,995,508	5.45
Scotland	1801	294,553	1,599,068	5.43
	1811	304,093	1,813,688	5.96
	1821	341,474	2,093,456	6.13
	1831	369,393	2,365,114	6.40
	1841	503,357	2,628,957	5.22
Wales	1801	108,053	541,546	5.01
	1811	119,398	611,788	5.12
	1821	136,183	717,438	5.27
	1831	155,522	806,182	5.18
	1841	188,196	911,321	4.84
Britain	1801	1,870,476	10,472,048	5.60
	1811	2,101,597	11,964,303	5.69
	1821	2,429,630	14,072,331	5.79
	1831	2,850,937	16,262,301	5.70
	1841	3,444,848	18,535,786	5.38

Source: *Comparative statement of the population and number of houses, 1801, 1811, 1821, 1831, 1841*, H.C. 1841 Sess. 2 (52), ii, pp 7, 12-13.

¹⁴ Lee, 'Accuracy of pre-Famine Irish censuses', p. 53.

¹⁵ *Census Ire., 1821*, pp 2-5, 28-37, 114-122.

¹⁶ *Census Ire., 1821*, p. 122.

¹⁷ In the counties of Wexford, Wicklow, Kildare and Carlow only the baronies of North Salt (6.71) and Talbotstown Lower (6.63) had greater mean household sizes than did Arklow (6.62).

¹⁸ The 1821 census reports a total population in Arklow barony of 20,420 in 3,085 houses (MHS of 6.62). This is comprised of an urban population of 5,353 in 798 houses (MHS of 6.71) and a rural population of 15,067 in 2,287 houses (MHS of 6.59).

¹⁹ Stratford and Rathnew town, for example, had very high mean household sizes, of 9.26 and 9.03, respectively (*Census Ire., 1821*, pp 127, 131).

²⁰ Article 6 of Act of Union of 1800. See Edmund Curtis and R. B. McDowell (ed.), *Irish historical documents, 1172-1922* (London, 1943), pp 211-2.

²¹ Thomas O'Neill, 'Bianconi and his cars' in Kevin Nowlan (ed.), *Travel and transport in Ireland* (Dublin, 1973), pp 84-5.

²² National population of 7,767,401 living in 1,249,816 built houses (*Census Ire., 1841*, pp viii, xv).

²³ In 1821 a national mean household size of 5.95 was 0.46 smaller than the Wicklow county figure but by 1831, the gap between the national and county statistics had reduced to 0.39 persons per house.

²⁴ Mean household size, calculated from *Census Ire., 1841*, pp viii, xv, is determined by dividing the total population by the number of inhabited houses. Connell's figure of 5.9 for mean household size in 1841 (Connell, *Population of Ireland*, p. 17.) was mistakenly derived by dividing the total population by the *total* number of houses, including unoccupied (new or old) housing, which raised unjustified doubts about the apparently exceptionally high figure for 1831.

²⁵ It is easier to omit people than houses when conducting a census. Houses are visible and can be counted unobtrusively. Counting people, however, required the support and assistance of people and it seems likely, therefore, that the early censuses enumerated people less accurately than houses. Thus, the 8.4 million population-estimate for 1841 by Lee (Lee, 'Accuracy of pre-Famine Irish censuses', p. 54) divided by the housing estimate (1.329 million) produces a mean household size of 6.32. This should be viewed as an absolute maximum, however, as invariably houses will also have been omitted, thus reducing the mean.

²⁶ Calculated from *Census Ire., 1841*, pp xv, xvi.

²⁷ Boundary changes can be seen in the note appended to the 'Summary of the general table' for each county. Thus, *Census Ire., 1841*, p. 5 (Carlow), pp 30-1 (Dublin), pp 42-3 (Kildare), pp 100-1 (Meath), p. 133 (Wexford) and p. 141 (Wicklow).

²⁸ Further south, rural Waterford's population, advanced by almost 17 per cent; Waterford (excluding the city) had a recorded population of 148,233 in 1831 and 172,971 in 1841 (*Census Ire., 1831*, p. 212; *Census Ire., 1841*, p. 256).

²⁹ Lee, 'Accuracy of pre-Famine Irish censuses', p. 53.

³⁰ Lee, 'Accuracy of pre-Famine Irish censuses', p. 54.

³¹ This may be generally expected, but population trends can differ considerably between regions too. Shillelagh barony experienced a dramatically different trend between 1831 and 1841, compared with the neighbouring barony of Scarawalsh, for example, but even these distinctive patterns can be justified. Whilst fertility and mortality rates in adjacent areas may be broadly similar, migration into, or out of, a region can be independent of trends in other areas. Thus, that Shillelagh was encountering a population decline between 1831 and 1841, while in neighbouring Scarawalsh the population was simultaneously advancing rapidly is likely explained by the consolidation policy of the Fitzwilliam estate from the 1830s, which was then funding emigration to America (Jim Rees, *A farewell to famine* (Arklow, 1994), pp 24-5). Hence, even while fertility and mortality rates may be broadly compatible, migration can substantially alter regional population levels.

³² Note, for instance, the reputed astronomical increase in population (62 per cent, or 5 per cent per annum) in the half-barony of Rathdown (Dublin), between 1821 and 1831 (table 19 and appendix 8).

³³ Brian Gurrin, 'The hearth tax roll for Dublin city, 1663' in *Anal. Hib.*, xxxviii (2004), pp 51-61 (hereinafter cited as Gurrin, 'The hearth tax roll for Dublin city').

³⁴ So much was this the case that when in 1781 the House of Commons requested the Revenue Board to provide annual statistics on hearth-tax house counts and exemptions for the period 1760-80, they were unable to do so. A request for data spanning twenty years (including a requirement for data on the number of uninhabited houses) could not be met, and all that was provided was the data for just one year, which did not contain numbers of uninhabited houses (*Commons' jn. Ire., 1779-82.*, x, pt 1 (1797), pp 278, 359; *ibid.*, x, pt 2 (1797), appendix dxxii).

³⁵ *Commons' jn. Ire., 1792-4*, xv, pt 1 (1797), pp appendix cxcvii-ccii.

³⁶ The success of the reforms must have come as a surprise to Bushe as the previous year had presented a paper to the Royal Irish Academy, in which he used national house statistics for 1788 to derive a contemporary national population estimate. In that paper he noted that the total number of houses recorded was 621,484 and commented that the real figure was more likely to be as high as 680,000 (Bushe, 'Essay towards ascertaining the population of Ireland', pp 147, unnumbered sheet between pages 148 and 149). In 1791, however, the actual number of houses recorded had risen to 701,102, which means that over the preceding three years, 80,000 additional houses had been accounted for. No useful statistics are available for any year after 1791, because in 1793 further reform, this time legislative, exempted large numbers of single-hearth houses from the tax base (33 George III, c. 14 (*Stat. Ire.*, xvi, pp 573-8); 35 George III, c. 1 (*ibid.*, xvii, pp 293-6); Gurrin, 'The hearth tax roll for Dublin city', p. 60).

³⁷ *Commons' jn. Ire., 1792-4*, xv, pt 1 (1797), pp appendix cxcvii-ccii. A debate was ongoing at the time about how the tax should be further reformed – hence the reason for the comprehensive data (Gurrin, 'The hearth tax roll for Dublin city', pp 58-60). Additionally, in late 1792, an inquiry was conducted into the value of property held by single-hearth taxpayers and this ancillary information provides valuable, if rarely used, information on wealth-distribution within the counties (*Commons' jn. Ire., 1792-4*, xv, pt 2 (1797), pp appendix cccxxxi-cccxxxviii).

³⁸ For each county the total number of houses paying for one hearth, two hearths, three hearths and so on is available.

³⁹ No hearth tax was due if the house was less than one year old.

⁴⁰ Bushe, 'Essay towards ascertaining the population of Ireland', pp 145-55, particularly unnumbered sheet between pages 148 and 149. In a reasonably comprehensive survey of Wexford, which did not have a mean household size as high as Wicklow in 1821, Bushe estimated the mean household size to be 6.5 per house although his statistical sampling methodology seems to have been, at best, rudimentary (*ibid.*, unnumbered sheet between pages 148 and 149).

⁴¹ When publishing diocesan statistics for Raphoe, Terence O'Donnell noted that 'most likely the figures for Protestant families ... are correct. On the other hand the returns for Catholic families may be based simply on a rough calculation; but even so, they are probably not too wide of the mark,' T. O. D. [Terence O'Donnell], 'Parliamentary returns for the diocese of Raphoe, 1766' in

Donegal Annual, iii, no. 1 (1954-5), p. 74. O Donnell fails to provide any evidence for this presumption but it seems feasible, nonetheless. There were, of course, exceptions, as is indicated by the return from the minister of Urglin parish, in County Carlow, who could only report 'Protestants, about 30' (M. Comerford, *Collections relating to the dioceses of Kildare and Leighlin* (3 vols, Dublin, 1883-6), iii, p. 406 (hereinafter cited as Comerford, *Kildare and Leighlin*).

⁴² Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 152. Note the Leinster figure for 1821 excludes Dublin city (note e).

⁴³ There is significantly more household size data available for Munster (Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 151).

⁴⁴ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 155.

⁴⁵ Between 1766 and 1813 the population of the half barony of Rathdown (Dublin) more than doubled (>125 per cent) whereas in the Wicklow part of the barony the rate of increase was c. 70 per cent.

⁴⁶ See Robert Burns, 'The Irish Popery laws: a study of eighteenth-century legislation and behavior' in *Rev. Pol.*, xxiv, pp 485-508. The returns from the popery inquiry have published; see 'Report on the state of Popery, Ireland, 1731 (Ulster)', in *Archiv. Hib.*, i (1912), pp 10-27 for Ulster; 'Report on the state of Popery in Ireland, 1731 Munster', in *ibid.*, ii, (1913), pp 108-156 for Munster; 'Report on the state of Popery in Ireland, 1731', in *ibid.*, iii (1914), pp 124-159 for Connaught; 'Report on the state of Popery in Ireland, 1731', in *ibid.*, iv (1915), pp 131-77 for Leinster. For the 'census', the religion of the 'family' was presumed to be the religion of the head of the family. As was seen in the discussion on the 1766 material, it was very common for members of households to be of a different faith to that of the household head.

⁴⁷ [David Bindon?], *An abstract of the number of Protestant and Popish families in the several counties and provinces of Ireland* (Dublin, 1736) (hereinafter cited as [Bindon?], *Abstract of Protestant and Popish families in Ireland, 1732-3*).

⁴⁸ An abstract of the number of Protestant and Popish families as returned to the Hearth money office Anno 1732 pursuant to the order of the commissioner of revenue (Lambeth Palace Library, MS. 1742, ff 43-8 [P.R.O.N.I. Microfilm 310]); Wicklow data on *ibid.*, f. 46.

⁴⁹ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', pp 147-50.

⁵⁰ The 1792 national house total was reported to be 701,102, which included 21,868 new and 112,556 pauper houses, but Dickson *et al.* suggest that the total of pauper houses should be increased by c. 50 per cent *Commons' jn. Ire., 1792-4*, xv, pt 1 (1797), p. appendix ccii; Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 146, table). Thus, their adjusted number of houses for 1791 increases to 757,380, but only 566,678 (701,102 excluding new and pauper houses) were paying households. Their adjustment ratio of 34 per cent (upper bound) therefore, is simply the proportion of the total number of paying houses which is required to increase that figure to the adjusted total number of houses (i.e. $(21,868 + 112,556 + 56,278) / 566,678 = 34$ per cent) (Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 149). Based on similar logic, Wicklow's figures (Wicklow had the ninth highest proportion of paupers' houses) emerge at $(378 + 2,429 + 1,214) / 8,700 = 46$ per cent. Rather than apply this exceptionally large adjustment figure I have chosen to use 40 per cent, since that figure is midway between Dickson *et al.*'s 34 per cent and the calculated figure for Wicklow, since it is possible that Wicklow's higher proportion of paupers represented better enumeration of paupers' houses.

⁵¹ Brian Gurrin, 'Three eighteenth-century surveys of County Wicklow' in *Analecta Hibernica*, xxxix (2006), pp 86-90.

⁵² It is likely, too, that the number of Protestants declined in much of rural Ireland during this period. Conversions to Catholicism, a cause of concern to the Protestant church throughout the eighteenth century, represented a net loss to Protestantism, once the enforcement of anti-Popery legislation was relaxed. Archbishop Boulter of Armagh, chairman of the committee established to inquire into the state of Popery in Ireland, certainly believed that conversions were primarily in the one direction, as about the time of the census, he lamented the loss of poorer Protestants to Catholicism – 'we are daily losing many of our meaner people, who go off to popery' (Boulter to the bishop of London, 11 January 1727, *Letters written by his excellency, Hugh Boulter* (2 vols, Oxford, 1749), i, p. 165 (hereinafter cited as *Letters of Hugh Boulter*)). Nor did he not see this loss

to Protestantism being equalled by converts from Catholicism, as he later noted that 'the ignorance and obstinacy of adult papists is such, that there is not much hope of converting them' (Boulter to the duke of Newcastle, 7 May 1730, *Letters of Hugh Boulter*, ii, p. 11). Thomas Newenham also notes that 'the same representation [loss of Protestants] might, I apprehend, have been made every year since, on at least as good grounds' (Newenham, *Stat. inq. of Ire.*, p. 308). Rural Protestants may also have encountered difficulties in practicing their religion in some areas, and the unavailability of services encouraged Protestants to look elsewhere for salvation. Boulter, noted in 1727 that 'at present many of our people go off to the papists or Presbyterians, for want of Churches to repair to' (Boulter to the bishop of London, 5 May 1730, *Letters of Hugh Boulter*, ii, p. 10) and in County Kerry some Protestants abandoned their Church on account of the unavailability of Church services. 'Several are buried like swine for want of a parson, and others are forced to get popish priests to baptize their children or suffer 'em to die without baptism' (Barnard, 'The eighteenth-century parish', p. 300). A similar factor was reported from County Kilkenny in 1731, where, in Kilmanagh parish 'as there was no Minister, the parents intended to call in a Popish Priest, but the grandfather objected' (James Leslie, *Ossory clergy and parishes* (Enniskillen, 1933), p. 307 (hereinafter cited as Leslie, *Ossory clergy*)). Legislative initiatives, such as the 1697 marriage act, introduced to discourage marriages between Protestants and Catholics,⁵² and the 1739 statute, aimed at disarming Papists may also have played their part (An act to explain, amend, and make more effectual an act passed in the seventh year of the reign of his late Majesty, King William the Third, of glorious memory, intitled, an act for the better securing the Government by disarming Papists (13 George II, c. 6 (*Stat. Ire.*, vi, pp 495-504)). Section 16 states, 'every person or persons professing the Protestant religion, who shall from and after the first day of July [1740], educate, or suffer to be educated, any of his or their children, either son or sons, daughter or daughters, under the age of fourteen years in the Popish religion, shall be deemed a Papist to all intents, constructions, and purposes of this act' (*ibid.*, pp 503-4)). These, and similar, legislative disabilities partly explain why Protestantism was stronger in parts of Ireland, including Wicklow, in the 1730s than in subsequent decades (see appendix 14 for a discussion concerning the decline in the number of Protestant families in County Kilkenny between 1731 and 1800).

⁵³ The increase in the total number of Catholic families could have been as low as c. 500 (Papist upper bound for 1732-3 (c. 7,740) to Papist lower bound for 1766 (c. 8,185), and as high as c. 3,000 (Papist lower bound in 1732-3 (c. 5,700) to Papist upper bound for 1766 (c. 8,900)). All evidence suggests an increase in the number of Catholic and a simultaneous reduction in the number of Protestant families.

⁵⁴ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 153, table 5b.

⁵⁵ [Bindon ?], *Abstract of Protestant and Popish families in Ireland, 1732-3*, pp 9-10.

⁵⁶ A county-wide 1717 compilation of Protestant and Catholic householders was available, but was destroyed in 1922 (Lane Poole notebook (N.L.I. MS 7227, unnumbered pages (56th page in notebook), 4 March 1717)).

⁵⁷ L. M. Cullen, 'Population trends in seventeenth century Ireland' in *Econ. & Soc. Rev.*, vi, no. 2 (1975), pp 150-1 (hereinafter cited as Cullen, 'Pop. trends in seventeenth century Ireland').

⁵⁸ Copies are available in various repositories, including the National Library of Ireland (MS 8818), the Genealogical Office (MS G.O. 667) and the National Archives of Ireland (MS M 4909).

⁵⁹ Liam Price, 'The hearth money roll for County Wicklow' in *R.S.A.I. Jn.*, lxi, pt. ii (1931), pp 164-78.

⁶⁰ Price, 'Hearth money roll, County Wicklow', p. 173 (hereinafter cited as Price, 'Hearth money roll, County Wicklow').

⁶¹ Monck Mason note that some parishes are imperfect ('Imperfect parishes following', Price, 'Hearth money roll, County Wicklow', p. 173) is ambiguous. It seems to suggest that all the parishes following are imperfect, but almost certainly only refers to the remaining parishes in Talbotstown, including the omitted parishes in the north-west. Note that no data is available for Logstown and two skins of the roll were torn out.

⁶² Dickson, 'Gap in famines', pp 98-101, 105. Also, Newenham reports 40,000 deaths from famine nationally in 1800-1 (Newenham, *Stat. inq. of Ire.*, pp 131-2).

⁶³ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 156.

⁶⁴ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 156

Chapter 3 – The specifics of population change in the localities

In the previous chapter a number of widely spaced population-level snapshots were derived for County Wicklow between 1660 and 1841, and although these snapshots provide the essential framework for understanding Wicklow's pre-Famine population history, a number of problems remain outstanding. By their nature, population snapshots can disguise short term fluctuations in population levels, and can hide evidence of demographic stresses. Thus, while snapshots may be useful for determining the broad demographic trends within a population, a more dynamic view of population-developments is necessary, in order to examine how the community may have responded to short-term demographic stimuli. The dynamics of the contrasting confessional demographics that were outlined in the previous chapter also require further examination. The evidence clearly suggests that Protestant numbers declined during the middle decades of the eighteenth century, but the nature and character of this decline remains unexplained.

Therefore, this chapter has two primary aims. In the first instance, the findings from the previous chapter will be scrutinised, using alternative source material, to see if they can be verified, and if the problems which remained unanswered that chapter can be solved. Secondly, this chapter also aims to explain more fully the population history of the region, by presenting a dynamic view of population developments during the long eighteenth century, between the Restoration and the Act of Union, which issue was not considered in chapter two.

In the absence of alternative sources, demographic historians have typically turned to parish registers to provide the crucial source material for the reconstruction of the dynamics of regional or national population histories. In Ireland, primarily because of her unique demographic and denominational histories, the majority of parish register based studies have tended to focus on aspects of population change in regions within Ulster, but Irish parish registers have the potential to be used for the study of populations over a wider geographic area. It will be seen in this chapter that the surviving parish registers from County

Wicklow, with its substantial Protestant population and some of the oldest extant registers, both Catholic and Protestant, in the country, are particularly suitable tools for the reconstruction of the area's population-history in the early modern era.

The uses of parish registers to the demographic historian

A common aim of the demographic historian is to determine the course of population change for a region, and then to explain the evidenced changes in terms of its effect on community and society. The population of a region at a particular time is influenced by a number of variables, including the historic population level of the region, the crude birth rate, the crude death rate, and the rate of net migration. Thus, the population at any period (year b) can be stated as

Population, year b = where year $b >$ year a ,	Population, year a + number of live births (period year a – year b) – number of deaths (period year a – year b) + net migration (period year a – year b).
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Figure 23 – Characteristics of population change.

and if the population at a particular period is known, then the population at another time can be estimated by estimating values for the other influencing variables.

The difference between aggregate births and aggregate deaths in a geographic area represents the *natural population change* for that area, whilst the net migration variable is influenced by population flows across the frontiers of the region. Determining these variables for early-modern Irish communities is difficult, however, principally because of the paucity of source material. As was shown in chapter two, for instance, population-level snapshots for Wicklow's baronies could only be determined, with any degree of confidence, for just six years between the Restoration and the commencement of statutory censuses in the nineteenth century. However, if the parish rather than the barony had been selected as the unit of study the situation would have been substantially worse, because for that unit population estimates could only have been determined for

just two years during the same period.¹ Furthermore, in the absence of civil registration of births and burials, not introduced in Ireland until the 1860s,² only one possible alternative set of sources is available from which estimates of natural population change can be derived. These are parish registers.

It must be borne in mind, of course, that population levels are driven by births, conjugal formations and deaths rather than baptisms, marriages and burials, and thus an essential step in the process of determining population levels from parish registers involves the translation of baptismal and burial totals into birth and death totals. As will be seen during this chapter, this task is fraught with difficulty and has the potential for considerable error, and although crosschecks can be applied to adjudge the accuracy and universality of the information, there is always scope for doubt over the accuracy of the estimates.

It should also be remembered that the aggregate levels of births, deaths and family-formations within a population represent a community's demographic responses to temporal variations in external influences and demographic stresses, but that the timing of at least some of these factors could be influenced by personal choices. The timing of both marriages and births was, to varying degrees, voluntary, and people could make, to some extent at least, choices as to when these events occurred. The timing of death and burial, on the other hand, was purely involuntary, and typically could not be influenced either by the community or the individual. A demographic crisis – a prolonged cold period, harvest rains, the arrival of plague or a military adventure, for example – may have been the social or economic circumstances for a community, but changes in baptisms and marriages (reductions) and burials (increases) represent a view on the population's demographic responses, both voluntary and involuntary, to such various challenges. Subsequently, when a period of distress ended, an increase in births and marriages often followed – manifesting the community's positive view of the future, and a restoration of public confidence. Fluctuating marriage rates are particularly useful in this regard, as the timing of nuptials lay, within certain constraints, within the remit of the groom, and, thus, the timing of marriages can be a good yardstick for gauging the level of a community's confidence in the future.

The temporal spheres of the demographic conditions that are reflected by the popularity of baptisms, marriages and burials at a particular time also differ. Of the three vital events, the level of marriages is a society's 'voluntary' commentary on perceived economic circumstances in the future, while the number of burials is an 'involuntary' manifestation of a community's present economic circumstances. Like marriages, the level of baptisms within a community can also be viewed, to an extent, as a community's 'voluntary' perceptions of future prospects, but of perceptions that were current between nine and eleven months previously.³ The fluctuations in vital-event rates over time, therefore, represent means by which a population's continually changing responses, both voluntary and involuntary, to varying political, social and economic circumstances can be examined and the actual population level at any particular time is a manifestation of how a community has been influenced by and responded to past circumstances, both recent and historical.⁴

Of course, these rates were not determined solely by economic or social circumstances, but were subject to constraints imposed by biological and social factors. The birth rate in a settled population, for instance, can typically be expected to vary between twenty-two and fifty-five per 1,000 people, with most pre-industrial European populations exhibiting crude birth rates in the region of between twenty-eight and forty per 1,000 people.⁵ Thus, in pre-industrial Ireland, a crude birth rate of between twenty-eight and forty per 1,000 can be anticipated (in rare circumstances the limits may expand to between twenty-two and fifty-five), unless exceptional circumstances, such as the recent colonisation of territories by a youthful population, temporarily boosted the rate above the anticipated upper limit.

Obviously, too, no comparable limits (particularly the upper limit) can be applied to crude death rates, although, in pre-industrial settled societies, the rates usually fell within fixed bands. In general, the crude death rate is influenced by the age profile of the population, with the aged cohort, once the immediate hurdles during the first few years of life were surmounted, more likely to be reduced by death. In exceptional circumstances, such as those resulting from famine, pestilence or war, crude death rates can have been extremely high, and may have

disproportionately impacted on younger, sub-groupings. In the main, however, during periods of social stability, the death rate is likely to have been of the order of twenty-five per 1,000 people, and usually lay within a range of twenty and thirty-five per 1,000.⁶

Crude marriage rates, for reasons already briefly touched upon, can be highly variable, depending to a large degree on the community's consideration of perceived future socio-economic circumstances. Lower than the crude birth and crude death rates, the crude marriage rate usually lay between five and ten per 1,000 people.⁷

Table 44 - Typical crude birth, death and marriage rates in pre-industrial societies

Events per 1,000 people			Reflection of circumstances, or public perceptions, or both:
	lr bound	ur bound	typical figure	
Births	22	55	variable, 28-40	9 - 11 months previously
Marriages	5	10		of the future
Deaths	20	35	c. 25	currently

Source: Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 20, 174, 181.

For the demographic historian, these crude limits, have a number of immediate uses. First, if census figures or snapshot population estimates are available, a consideration of the thoroughness of parish recording can be easily obtained, providing account is taken of the likely differential between baptisms and burials and births and deaths. Secondly, by using reasonably accurate parish registers data, suitably adjusted if the data is deficient, it can be possible to generate estimates of a population's size at some period before or after the time for which known population figures are available (figure 23). Thirdly, tracking changes in the crude vital event rates can help to identify contemporary attitudes regarding a population's past, current and future circumstances. Fourthly, inter-temporal comparisons are facilitated by reducing parish-register verbiage to pliable numerical statistics. These themes provide the focus for the remainder of this chapter.

However, before any attempt is made to reconstruct the county-wide, regional and local characteristics of population change in early modern Wicklow (by attempting to transpose baptisms into births and burials into deaths), a number of steps are required. First, a model would be useful to explain population change

in pre-industrial Wicklow. Secondly, an evaluation of the available registers is necessary, in order to determine the quality of the recording in each individual one. Having done this, and identified poor-quality registration, one is left with a choice as to how best to proceed. Wrigley and Schofield, working with the monthly aggregations of baptisms, marriages and burials for 404 English parishes could afford the luxury of discarding deficient registers, but paucity of sources means that that is an option rarely available to the Irish population historian. Instead, techniques have been developed for the purposes of this project, which permit the retention of registers which contain periods of poor recording, but just use the information that is available from periods of thorough registration.

Having flagged periods of poor recording, it is then possible to proceed with the process of converting the church fundamentals – baptism and burial registration – into the vital events of demography – births and deaths. Michael Drake has complained that this was a challenging prospect for (and the source of disagreement among) English historians, working with post-seventeenth century registration because of the rise of non-conformity.⁸ If this was the case for England, the challenge is infinitely greater for Irish ones, who have to deal with ‘non-conformity’ rates touching, and even exceeding, 90 per cent. If, however, this task is either successfully accomplished or worked around then the course of natural population change starts to be revealed.

At all stages, it should be remembered that, as is the case with any reconstruction of past-population-levels, it is impossible to accurately gauge historical population levels, and the best that can be hoped for in this study is simply to verify the population snapshots that were identified in chapter two, and to suggest likely population trends for periods between the snapshot data. In fact, it would be unreasonable to expect scrupulous accuracy from statistics gathered by unqualified, and in some cases, uninterested, scribes, who recorded their data for local consumption, two or three centuries ago. The process used will rely heavily on statistical abstracts, averages and data summaries, and while any process built on statistical abstracts is not accurate, it is likely that the fundamentals of population change suggested for Wicklow in the pre-industrial period are unlikely to be too far out of step.

STEP 1 – A MODEL FOR POPULATION CHANGE IN PRE-INDUSTRIAL WICKLOW.

In the conclusion to *The population history of England, 1541-1871*, E.A. Wrigley and R.S. Schofield propose a set of models for explaining how a balance was maintained between population and economy in pre-industrial England.⁹ Through a series of steps, they developed a complete model of a population system, which, they suggest, is appropriate for explaining the dynamics of population change in England between the late-sixteenth and late-nineteenth centuries.¹⁰ This complete system is presented in figure 24, and is appropriate for the examination of population change in pre-industrial County Wicklow. While real-life situations may not have exhibited the clarity and definiteness of suggested by this model, and while the sensitivity of any population's mortality, fertility and migration rates may vary, depending on each community's specific economic circumstances, nonetheless the complete system shown in figure 24 represents a very useful tool for examining regional and parish population fluctuations in the Wicklow region.

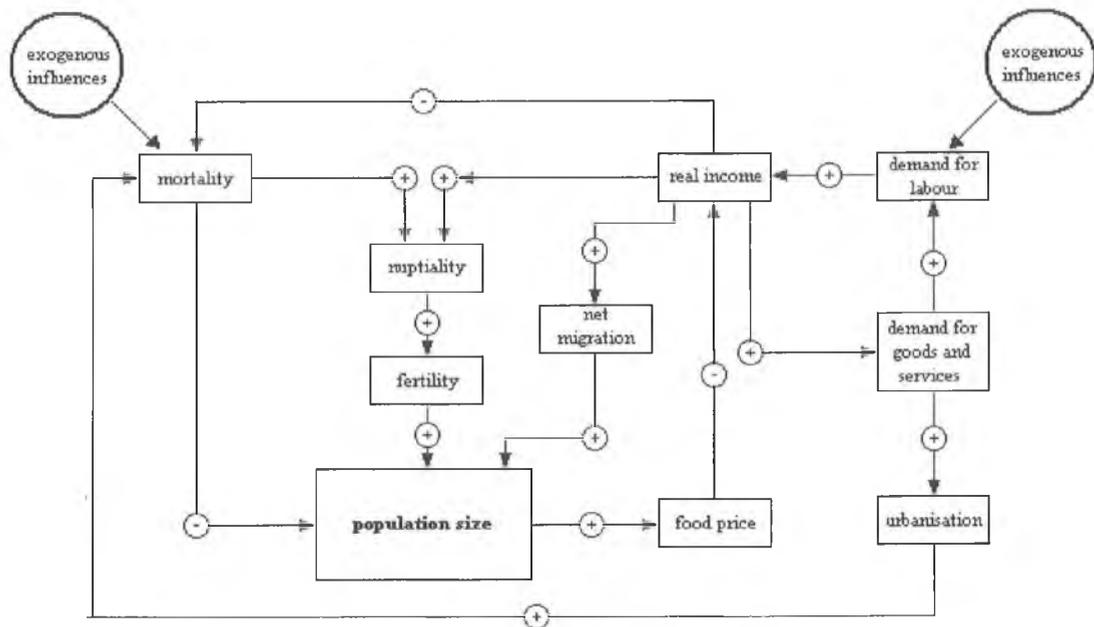


Figure 24 – A model of a complete system for population equilibrium, with positive feedbacks (source: Wrigley and Schofield, *Pop. hist. of England, 1541-71*, p. 465).

Temporal lags

While this complete population model (figure 24) shows clearly the probable correlations between contemporary or recent socio-economic conditions and the general population level, the specifics of an individual demographic crisis can be more complex, and neither does it explain the impact of time lags which may occur. Because of time-lags – which are the norm rather than the exception – specific socio-economic conditions during a particular period often impact to a lesser degree on population levels during the year of a crisis than they do during subsequent years.

Of course, the impact that subsistence crises in the past may have had on a population is largely determined by the social structures and socio-economic conditions within that society, and more particularly on the availability of access to necessary economic or sustenance reserves. Typically, agrarian-based societies were, in the main, better able to withstand short-term subsistence crises than were their contemporary urban dwellers, as such populations usually had access to

reserves which may not have been available to many urban inhabitants. For urbanites, their reserves were usually monetary, which devalued during times of crisis, while the biological and physical reserves available to rural dwellers correspondingly appreciated in value. Thus, when harvest failures occurred, mortality was often muted in rural areas at the outset, and only increased significantly during the second year of a prolonged crisis, whereas a similar crisis was typically felt more immediately in towns. This varying impact of food shortages has been documented for the Great Irish Famine of the 1840s,¹¹ and elsewhere, for example, Tim Dyson has observed this temporal lag in his recent study of regional famines in India in the late nineteenth century and Violetta Hionidou reports similar patterns for the Syros (Greece) famine of the 1941-2.¹²

The impact of a demographic crisis on fertility and mortality also merits consideration. Serious subsistence crises impact on the three variables determining population trends (figure 23) in the following manner: deaths increase, births decrease and migration from the affected areas occur. The impact of a subsistence crisis on the mortality rate is most obvious. In a rural area, such as early-modern Wicklow, when mortality increased, as a result of food shortage or the spread of disease, the population fell, and when food was plentiful and incidents of disease rare, mortality rates were reduced.¹³ Being a largely rural economy, it is reasonable to expect a slight time lag before the mortality rate began to increase – if the harvest failed, deaths would increase, but not immediately.

During prolonged crises, however, the reserves of rural populations become progressively exhausted, and with the passage of time, unless relief reduces the threat, increasing numbers of rural dwellers are dragged into the Malthusian mortality trap. Biologically-healthy, well-nourished humans can withstand the various afflictions and diseases which accompany periods of under-nourishment for a period, but if the period of under-nourishment is extended then the consequent reduction in general health and the impact that the subsistence crises may have on societal organisation – people forced into overcrowded conditions, for example – makes a population more susceptible to diseases and mortality.

Contemporary economic conditions also impact on fertility and nuptiality, and often to a greater extent than they do on mortality. During a subsistence crisis, the economic and biological incentives for reproduction are reduced. In particular, during severe crises the lowering of general health levels as a result of under-nourishment leaves humans less capable of reproduction, through a combination of reduced libido and coital frequency, and also through spousal separation if migration is characteristic.¹⁴ Consequently, during a crisis a lagged decline (of approximately 9 or 11 months) in births can often be observed, and Dyson and Ó Gráda suggest that this reduction in fertility is ‘an even more common feature of famines than is a mortality increase’.¹⁵

Furthermore, in the immediate aftermath of a downturn, it may have taken some time for the population to bounce back to its pre-crisis level. In modern times, with annual population growth rates of up to 3 or more per cent per annum in developing countries, any demographic losses can rapidly be made up, but in historical times, when growth rates were rarely comparable to modern levels, the population level could have remained depressed for a period of time.¹⁶ This does not represent the typical case, however, and some populations rapidly recovered after suffering severe demographic shocks, such as occurred in Ireland after 1740-1, or in Finland after 1868.¹⁷

In the slightly longer term, fertility may also be depressed as a result of the decrease in marriages which invariably accompany demographic challenges.¹⁸ Being an indicator of expectations about the future, there was a tendency in the past for marriage plans to be postponed or abandoned during times of crisis. It seems likely, therefore, that any recovery in marriage rates was closely tied to a recovery in positive sentiment about the future, which, may have been linked to the scale or intensity of the crisis. Thus, the more prolonged and effective was the crisis, the longer it may have taken for confidence in the future to recover, and in extreme situations, positive sentiment may have failed to recover at all, such as occurred during and after the Great Irish Famine of the mid-nineteenth century. Hence, it should not be surprising to observe a one-year socio-economic crisis impacting on fertility and nuptiality rates, and consequently on population trends, over the subsequent two, three or even four years.

Demographic crises of the seventeenth and eighteenth centuries

Before any attempt is made to examine rigorously the surviving parish register material for Wicklow, it is important to briefly outline the various subsistence crises that impacted on the region during the eighteenth century. Subsistence crises were a common feature of all pre-industrial societies, and many of the mortality peaks exhibited in Irish data are contemporarily represented in the mortality trends in neighbouring European regions. Louis Cullen has argued, in fact, that famine in Ireland occurred when a harvest failure was coincident with failures abroad, meaning that domestic deficiencies could not be satisfied by imports.¹⁹

Nationally, Ireland was hit by numerous subsistence crises during the period under study, although, in a time not characterised by incisive statistical recording, the definite features of many of these crises have become eroded, and in many cases the extent of the increased mortality rates is unclear. Unsurprisingly, however, a common feature of most of these crises was a sharp increase in the price of foodstuffs, particularly grains, as a reduced supply of the product failed to match elevated, crisis-driven demand. Grains, in their processed form, were an essential foodstuff in all urban areas, and were a staple throughout rural Ulster and parts of Leinster, including Wicklow, and Munster, and oatmeal also formed a common foodstuff throughout much of the rural south. Consequently, when the price of grains increased during a shortage, the administration often responded by prohibiting profiteering in the market – proclamations were issued prohibiting either the exporting or hoarding of grain for future gain.

Such proclamations were issued during the late seventeenth century in 1674, 1681, 1684, 1687 and 1697-9.²⁰ Most of these appear to have been only single-season shortages, with the exception of the latter, when a number of proclamations were issued regarding forestalling and exporting grains because of successive harvest failures.²¹ Despite it being a minor port, and unsuitable for large ships, one of these proclamations, issued in 1697, expressly forbade export from Wicklow.²²

The first comparable proclamations of the eighteenth century were issued in 1708-9, when another deficiency in the harvest required the prohibition of exports, and the banning of forestalling from March 1708, 'owing to the dearth and high prices of food'.²³ The winter of that year was harsh, and a general grain failure occurred throughout Europe.²⁴ In England in 1709 the price of wheat was significantly higher that year than at any other period in the century between 1630 and 1730, whilst in France during the same year prices of the four principal grains soared, with wheat more than five times more expensive than it had been two years previously.²⁵ The prohibitions against exporting grains were not lifted until April 1710, when there was 'a fair prospect of a very plentiful harvest'.²⁶ Despite this, the intensity and impact of this reduced harvest remains unclear, and although Louis Cullen has suggested that Ireland escaped relatively lightly, it will be shown subsequently that there is evidence of a profound impact on fertility rates in the Wicklow region at this time, which was compounded by further harvest difficulties in 1715-6.²⁷

The harvests during the first half of the 1720s were, with the exception of 1722, good,²⁸ but after 1725, poor grain harvests occurred for at least four of five years. The extent of the harvest crises of the late 1720s has thus far evaded close scrutiny from most Irish historians, with the notable exception of James Kelly.²⁹ Distress appears to have been widespread and contemporaries noted the near-famine conditions in various, diverse parts of the country,³⁰ but, being a recurrent grain failure, its impact was going to be felt most particularly in the areas where grain consumption was highest. Throughout much of rural Ireland the potato had been gaining ground, particularly among the lower strata of society, but grains remained dominant in urban areas and in Ulster, and retained a solid toehold throughout rural Ireland, including in County Wicklow. Even in areas where potato consumption was most prevalent, the potato did not come to dominate dietary intake, even for the cottier and labourer class, until the latter years of the eighteenth century at the earliest, and oatmeal and wheaten bread remained an important part of the typical diet.³¹ The administration's response to this crisis was tardy. In July 1727 Hugh Boulter, archbishop of Armagh, was commenting on 'the terrible scarcity next to a famine that a great part of the

kingdom now labours under by the corn not yielding well last year, and to which we are liable upon any the least accident in our harvest' and the following year in a letter to the archbishop of Canterbury he wrote that 'this [1728] summer must be more fatal to us than the last; when I fear many hundreds perished by famine'.³² The harvest failure of 1728 was the most critical of the 1720s, and prompted a swift response from the administration.³³ A proclamation against profiteering, referring to the 'bad season last harvest', was issued in late December 1728, at which time Boulter was referring to the possibility that 'some thousands will perish before next harvest'.³⁴ Earlier in the year parliamentary approval had been secured for a tillage bill, initially rejected in England,³⁵ which Boulter hoped would encourage tillage in the country, in which 'in many places there is neither house nor corn field to be seen in 10 or 15 miles travelling'.³⁶ It was a common belief, and one shared by Boulter, that famine would remain a perennial threat, unless grain production could be increased.³⁷

Further attempts by the administration to lessen the crisis included the passage of a parliamentary statute in 1727 regulating the price and size of loaves and the instigation of a subscription in late 1728 to alleviate the situation in the worst affected parts of the country, particularly in Ulster.³⁸ The successive failures had spurred some Ulster Protestants to emigrate to America, a move which, unsurprisingly, Boulter wished to discourage. In 1729 grain prices remained high, and the crisis did not abate until 1730, when a bumper harvest resulted in 'disastrously low prices', and the lifting of the prohibition on exporting.³⁹

Although Ulster was clearly affected by this crisis – largely because of the preponderance of grains in the diet – Boulter, the archbishop of Armagh, was understandably focussed on that province. Grains were important foodstuffs elsewhere in the country too, however, and as was seen in chapter one, County Wicklow, boasting a strong Protestant population, and extensive areas of fertile soils, had a significant acreage under grains. Wicklow, therefore, was a viable candidate for enhanced suffering during the crisis of the late 1720s.

The next prolonged national crisis occurred at the outset of the 1740s when, during the first years of that decade harvests failed disastrously and mortality peaked right across Western Europe.⁴⁰ Most countries in the region

experienced exceptionally high mortality rates during one or more of the years 1740, 1741 or 1742,⁴¹ and for Ireland, the severe weather in the winter of 1739-40 ('great frost rotted almost all of the potatoes in ... half an hour')⁴² was a prelude to twenty-one months of crop failures, untypically harsh weather, disease and, inevitable, famine. The impact was general, and widespread, and although Munster may have been the most severely impacted,⁴³ all of the country experienced serious hardship. Commencing in December 1739, the cold was so intense that rivers froze over and by the summer of 1740 food prices had astronomically increased.⁴⁴ Unlike in the 1720s, however, the government's response was rapid, and a prohibition against exports was issued on 19 January 1740.⁴⁵ In fact, the response was so rapid that it indicates that the harvest of 1739 had been poor, even before the arrival of the unprecedented cold. The autumn of 1739 had been excessively wet, which inevitably would have reduced the harvest, and the cold winter on 1739-40 hampered the milling of flour.⁴⁶

The shortage became acute towards the summer of 1740, and failure of the 1740 crop led to four more proclamations against profiteering being issued by the end of the year. Grain prices increased to multiples of typical levels,⁴⁷ inspiring a philanthropic response from some, including from Richard Wingfield of Powerscourt, who organised food relief for 150, provided employment for 'great numbers of labourers' and contributed £2 weekly to the parish charity fund, during the crisis.⁴⁸ In the spring of 1741 disease, which had become endemic in many parts, was causing further difficulties, and grain prices remained high,⁴⁹ but by July the crisis had considerably abated and grain prices tumbled rapidly.⁵⁰ Nonetheless, the 1740s remained a troubled decade, with the occasional local crisis conspiring to present further demographic hurdles to a weakened population. In 1744 both the grain harvest and the potato crop failed, although a successful harvest in England meant a ready supply of imports to satisfy excess demand and 1746 presented further stiff challenges.⁵¹

The 1740s was certainly bad, but the 1750s, punctuated by poor harvests, was not much better. During the mid/late 1750s grain exports and forestalling were again disallowed and in 1755 and 1756 grain prices increased.⁵² Large-scale imports of grain were necessary in the years 1753-5 and 1757-8.⁵³ Louis Cullen

has identified the year 1756-7 as a period of 'near-famine', and the distilling and brewing industries were statutorily forbidden to use a various foodstuffs, including wheat, barley, oats and potatoes, between 25 March 1758 and 1 September 1759.⁵⁴ This crisis was compounded by a concurrent financial crisis, which reduced the options for those such as Wingfield, who may have been disposed towards a philanthropic response.⁵⁵

It will be seen, however, that, although evidence of distress can be identified in the parish registers of Wicklow, the 1750s downturn appears not to have been as severe as the serious subsistence difficulties which commenced in the early 1760s and became acute in 1765. In that year the mortality pendulum lurched towards crisis when both the spring grain and the summer potato harvests failed⁵⁶ and concurrent harvest failure in Britain – it is to be remembered that Louis Cullen saw this as a pre-requisite for famine during the eighteenth century – saw the customary restrictions on exporting temporarily reintroduced. This crisis was prolonged, too. Imports of excise-free corn were permitted in Britain and Irish proclamations against export were issued in October 1766 and in November and December 1767.⁵⁷ Three parliamentary statutes were also passed in 1765 to prevent distilling and brewing, to restrict exports and to encourage new methods for storing grains, as 'there is not at this time [1765] more than a sufficient quantity of corn or all kinds to answer the consumption of this kingdom until the next harvest'.⁵⁸

During the latter third of the eighteenth century further periods of distress caused by harvest failure occurred in the early 1770s,⁵⁹ and during the years 1782-5.⁶⁰ The latter of these two failures was probably the greater, although concern about shortages was manifest in the early 1770s in diverse places.⁶¹ David Dickson's examination of grain prices in Dublin reports grain-price peaks in 1772-4 and 1782-4, and he has observed burial peaks in north-Leinster Catholic parish registers in 1774 and 1783⁶² and Liam Kennedy's recently published examination of long run cost-of-living trends in Ireland (1698 to 1998) also confirms difficulties during these two periods.⁶³ The sequence of failures between 1782 and 1785 represented the last significant demographic challenge of the eighteenth century, with distress on that scale not generally recurring until the

failure of the potato harvest in 1800-01, and in the case of Wicklow, until the troubled years of 1798-9.

Ranking these crises in terms of their excess-mortality tolls is difficult, mainly due to the lack of historical analysis as to their effects, but it seems certain, based on surviving contemporary accounts, that the famine of the early 1740s was the most brutal experienced during the eighteenth century. Conjecture, based principally on the degree of reportage from contemporaries, could justify a presumption that the famine of the late 1720s was very severe, and was probably more deadly than all the other downturns during that century, with the exception of the early-1740s.⁶⁴

After this the ground becomes less solid, although the 1760s harvest failures, both grain and potato, which necessitated parliamentary statute to alleviate distress, and the harvest difficulties of the late 1750s/early 1760s both appear to have been national and worrisome, and these period (1755-9 and 1762-6) were likely to have been among the more critical periods during this century. The early years of the 1780s were also a difficult period, although the situation in Wicklow does not appear to have been as critical as was the case elsewhere, including in Dublin.⁶⁵ In the course of this chapter the 1710s will also emerge as a decade of grievously declining fertility among Wicklow Protestants, which cannot but have impacted on Protestant numbers in the county.

Liam Kennedy's cost of living index confirms much of this speculation. For the first half of the eighteenth century the 1740s was clearly the period when real incomes were under the most grievous threat. For Professor Kennedy, however, it was mid 1710s rather than the late 1720s which appears to have been a particularly critical period, as may have been the case in Wicklow. Prices peaked also in 1709, coinciding with the first eighteenth-century proclamations against exporting of grains, but this was only a single-year crisis (figure 25).

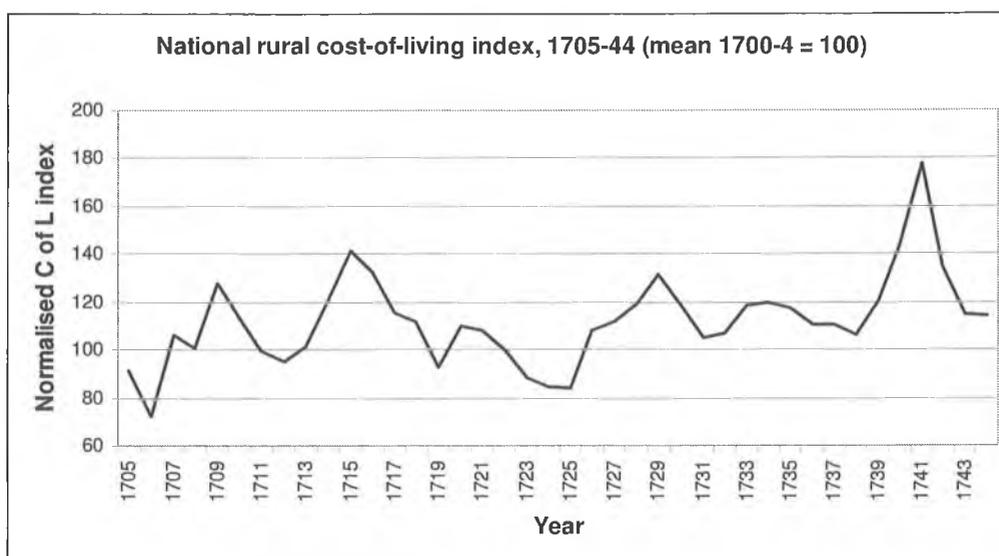


Figure 25 – Rural cost of living index, 1705-44 (mean 1700-4 = 100) (source: data supplied by Professor Liam Kennedy. See Kennedy, ‘Cost of living in Ireland, 1698-1998’ in Dickson and Ó Gráda (ed.), *Refiguring Ireland*, pp 249-76).

The situation for the latter half of the eighteenth century is less definite (figure 26), largely because of the impact of inflation, which was becoming an increasing feature of the Irish economic landscape,⁶⁶ although in the light of the above consideration of demographic difficulties, some notable features emerge. The contrast between the disastrously low prices of 1782 and the disastrously high prices the following year must be a reflection of the poor harvests of those years. A general advance in prices between the mid-1760s and mid 1770s is also evident, but this is may be caused just by inflationary pressures. The impact of fluctuating harvests is also evident, however, as is suggested, for example, by the short-term price fluctuations which occurred between 1763-7 and 1772-5. Professor Kennedy’s cost of living index will be used extensively during the course of this study, as an indicator of general economic conditions.

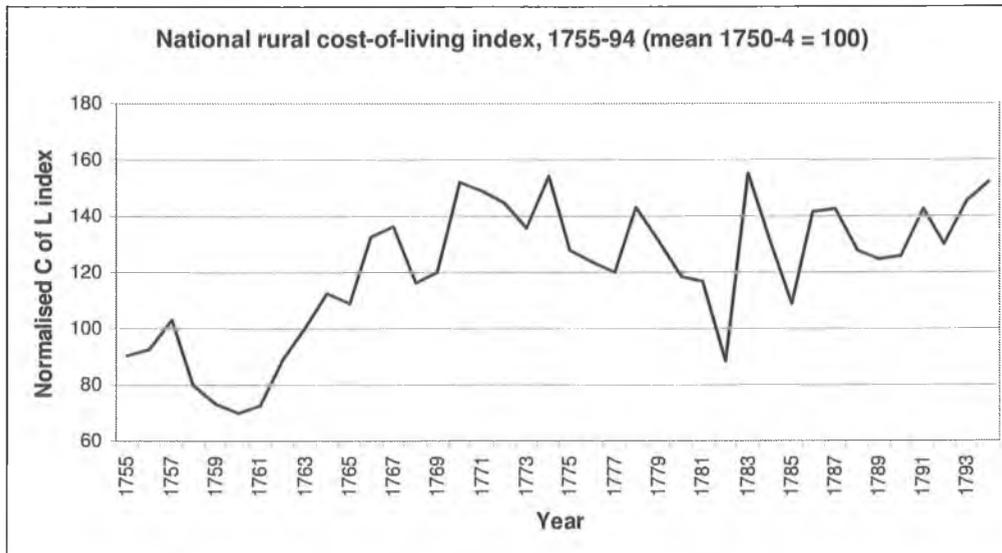


Figure 26 – Rural cost of living index, 1755-94 (mean 1750-4 = 100) (source: data supplied by Professor Liam Kennedy. See Kennedy, ‘Cost of living in Ireland, 1698-1998’ in Dickson and Ó Gráda (ed.), *Refiguring Ireland*, pp 249-76).

STEP 2 – THE WHEAT FROM THE CHAFF – DETERMINING THE QUALITY OF REGISTRATION.

It is reasonable to expect that many, if not all, of these various crises would have been manifest in either, or both, reduced fertility and increased mortality in Wicklow, and if so, then traces of these crises should be evident in the surviving parish registration records. Before attempting to reconstruct population trends from parish registration data, however, it is important to be clear about what one can reasonably expect to be achieved from an analysis of the surviving source material. Any reconstruction of population-levels from registration data can only aim to reconstruct the population of the denomination being registered, unless the registers are not denomination-specific. Definite evidence for the occurrence of multiple-denomination registration is sparse, and since Catholic registers for only one parish, Wicklow, pre-date 1790, it is impossible to make a conclusive general comment on this issue. In fact, unless a person’s religion is explicitly stated in register entries, it can be difficult, and often impossible, to identify an individual’s confessional allegiances. In the case of Wicklow parish, however, for which both Church of Ireland and Catholic registers are available for periods after 1747, there are *no* incidents of Catholics being recorded in either the Church of Ireland

baptismal or burial registers between 1747 and 1800, and there is no additional evidence to suggest that this was not representative of the general Wicklow situation. For the greater Wicklow region there are only two known exceptions to this rule – in Athy and in a handful of parishes in the north-east of the county – but in both of these cases multi-denominational recording was maintained only for very brief periods (appendix 21).⁶⁷ Similarly, with marriage registration there are no incidents of dual recording of marriages in both Catholic and Protestant registers, even in the case of mixed marriages, where such dual recording might be anticipated.

It will be thus assumed that, outside these few cases, only Catholics were recorded in the Catholic baptism entries and only Protestants (perhaps of varying beliefs and practices) were included in the Church of Ireland registers. Any few deviations from this rule were likely to have been highly exceptional, and would not greatly influence any observed general trends. Because of this, therefore, Church of Ireland parish registers can only be used to reconstruct population levels for the Protestant population of greater Wicklow, and the Wicklow Catholic register can likewise provide specific comment only for that denomination. However, since external influences on population levels and trends were largely denominationally independent (harvest crises and fluctuating food prices impacted equally on the Catholic as on the Protestant), trends in the Church of Ireland parish registers can be viewed as indicating the general trends that may have been manifested in Catholic population levels, but to a less precise degree.

Of course, any demographic analysis based on parish registers is limited by the quality, thoroughness and accuracy of those registers. As has been already observed, however, Irish demographic historians are unlikely to have the luxury of being able to discard registers when there is doubt over their accuracy and completeness, or when they are punctuated by brief periods of poor recording. Few registers, be they Church of Ireland or Catholic, are without periods of poor registration or gaps, and in some cases, the records are of such poor quality, and the recording is of such a sporadic nature, that they are largely useless for demographic research. In other instances, however, even when substantial gaps are

evident in the registers, the quality and scope of the information contained therein can often outweigh the difficulties caused by the periods of poor registration.

In their aggregation analysis of English population change, for example, Wrigley and Schofield elected to discard any baptism and burial registers with defective registration during twenty years in any forty consecutive years, thereby aiming to prevent errors being introduced into their calculations from poor quality data.⁶⁸ Less stringent criteria were applied to marriage registration, as marriage registers typically only recorded between one-quarter and one-third the number of events that were recorded in baptism and burial records.⁶⁹ If a register failed one of their criteria for accuracy, the register was discarded, and the entire data from that register was ignored. Through this process, a total of 126 out of a total of 530 aggregations (almost one in four) were removed. Michael Drake alternatively suggested criteria which were in some ways more and in other ways less stringent than those used by Wrigley and Schofield.⁷⁰ Specifically, Drake proposed eight tests which could be applied to a register to determine its suitability for demographic analysis.⁷¹

While both sets of tests for completeness and suitability are justifiable, and useful, neither has been adopted, unmodified, for the purpose of this study. Ultimately, the methodologies that are applied here lean more heavily on Michael Drake, and on the efforts of the Local Population Studies Society, than to Wrigley and Schofield and so Drake's tests appear more appropriate. However, the reason why they have been modified rather than rigorously applied is because of the different confessional positions between Ireland and England. Particularly, it was deemed inappropriate, and excessively scrupulous, to discard any parish registration sets on account of brief periods of poor registration. Changes in the quality and completeness of parish registration were often impacted on by a change in the parish minister, and it did not make any sense to discard the totality of data in a parish's registers, thereby losing important statistical information from good registration periods, because periods of poor registration had occurred. In fact, if either Drake's or Wrigley and Schofield's criteria had been rigorously applied to the registration data for County Wicklow all the registers would have

been discarded, and there would have been no data available for the reconstruction of the county's population history.

In effect, therefore, it was necessary, for this project, to construct a new methodology, which reflects Irish circumstances, in order to use the surviving Wicklow registers. Principally, this involved determining periods of poor or no registration and accounting for these defects by either estimating the extent of the omissions from the registers for the period of defective registration, or alternatively ignoring the register data for the period of poor registration, but using the register when thorough registration was in progress. While this may appear obvious, the technical methods underpinning the process, while not particularly complex, require some explanation. By contrasting this methodology with Drake's suitability-tests, the theory and reasoning becomes clearer. This modified methodology is detailed in appendix 22.

Cleansing the data – a four-stage process

Drake's eight tests form the skeleton of the process of data checking and cleansing, which can be reduced to the following four-stage process:

1. the baptismal and burial entries in each parish are aggregated, by month and by year.
2. periods of prolonged (two years or more), continuous under-registration are identified and removed from the calculation.
3. for the data that remains, *interpolation* is used, if required – and if feasible – to fill in any obvious, but infrequent, monthly deficiencies.

By this means, a list of the years with good-quality data and the actual number of baptisms and burials will be available for each parish. The quality of the data for each parish will be variable, and many long gaps can be expected for most parishes. In some cases, however, prolonged, good-quality data will be punctuated by years for which the data appears to be poor. In such instances:

4. annual interpolation, will, if appropriate, be performed for baptisms to estimate the likely deficient figure. Annual interpolation is less appropriate for burial

data, since burial-levels fluctuations are more elastic, and more likely to vary widely.

At this end of this stage estimated annual and monthly counts will be available for baptisms and burials totals for all parishes for part or all of the period for which parish-register data is available.

The process in operation

Stage 1 – sum the data

Graphs of parish annual totals of baptisms and burials are shown in appendix 23 (figures 189 – 203).

Stage 2 – identify obvious, prolonged gaps in parish registration

When the annual totals of baptism and burials are graphed for a parish (stage 1 and appendix 23), periods of under-registration are often obvious, and periods of non-registration are always obvious. For other periods, however, it may not be immediately clear if a drop in the number of events is a result of poor registration of baptisms or burials or if the drop is an accurate reflection of changes that were occurring in fertility or mortality (the number of events per annum may drop significantly but some events may still be recorded). One could try to manually make judgements on the quality of the data, but that would be subjective, non-standard and prone to error. Thus, in the fashion of Wrigley and Schofield, an algorithm has been developed which, applied to the crude data, determines, according to pre-defined rules, what constitutes poor registration and what constitutes changes in birth and death rates.⁷² The obvious advantage of this approach is that it divorces the process from subjectivity and personal bias. Attention is also given to the departure or arrival of a minister, as this may lead to changes in the degree of thoroughness with which registration was undertaken. The operation of this process is detailed in appendix 24.

Stage 3 – interpolation, for missing months

Michael Drake has suggested the use of interpolation to resolve any short-term (less than a year) gaps in the baptism and burial series.⁷³ This process can only operate to correct likely short-term deficiencies during a period of relatively good recording. The interpolation process that has been applied to the Wicklow data, explained thoroughly in appendix 25, operates through the use of a

'control mean', which is calculated, by determined the mean number of baptisms or burials which were recorded during the same month in the previous five years and the following five years. For example, if the mean number of baptisms in June for the period 1700-4 and for 1706-10 is twenty, but no baptisms were recorded for June 1705, then twenty baptisms will be presumed for June 1705. Interpolation is used less commonly with burial data, because deaths and burials are subject to much greater fluctuations than are births and baptisms.

Obviously, interpolation is a risky process, and may possibly cause more damage to a genuine dataset, than resolve any outstanding problems and a genuine dip in the level of baptisms or burials may be masked if the rules for interpolation are applied too loosely. To limit this possibility strict guidelines have been used in the interpolation process (appendix 25), but as is outlined in the appendix, interpolation proves to be little more than a minor panacea for the ills of the Wicklow data, and ultimately only a handful of adjustments are permitted to the data by the chosen interpolation methodology. In appendix 25, graphs present the re-adjusted totals for the annual aggregates of baptisms and burials for each parish, with the data for years which have been determined to be deficient purged. If these graphs are compared with the plots of the annual unadjusted aggregates for baptisms and burials (appendix 23) clearly the process of identifying deficient years (appendix 24, determinant 2) has thinned out the available data considerably; in the new graphs (appendix 25) the gaps in the data have become more pronounced. However, the surviving data are almost certainly more reflective of the true numbers of baptisms and burials during the surviving years than was the case with the unadjusted data, and are consequently a more appropriate tool for population estimation.

Stage 4 – filling in the 'one year' gaps – annual interpolation, for missing years – baptisms only

This process will only be performed on the baptismal data, as burial data is typically subject to more significant fluctuations, depending on contemporary health, economic and nutritional circumstances. If, under the previous stages, the aggregate events for a year were deemed to be deficient, but the annual-aggregate data for the previous and for the succeeding quinquennia is principally acceptable, then the level of the missing data will be assumed to be the mean of the annual

levels recorded during the succeeding and following quinquennia. For example, if the aggregate number of baptisms for 1700 is deficient, but the data for 1695-9 and 1701-5 has been accepted then the mean number of baptisms for the years 1695-9 and 1701-5 will be assumed for 1700. Since the gap year represents an interim between the previous quinquennial period and the succeeding quinquennial period, then viewing the gap-year as a 'bridge' between the events of the previous half-decade and the succeeding half-decade is justifiable (appendix 26).

In many instances, however, a deficient year is not surrounded by two quinquennia during which registration was deemed to be adequate for all ten years. Because of this, if the rule determined that there had to be adequate registration during all years within the surrounding quinquennia then few estimates for deficient years would have resulted. Consequently, it was considered appropriate to relax the rule somewhat. Of course, the more the rule is relaxed, the more estimates can be generated, but also, the less meaningful – and likely, the less accurate – they become, being progressively based on less and less data (table 45). Following experimentation, it was decided (table 45) to allow estimates to be calculated if the aggregates for no more than two of the years in the preceding and succeeding quinquennia are deficient – thus, for an estimate for a deficient year to be determined, the data for at least eight of the surrounding ten years must have been considered acceptable following the interpolation process outlined in stage 3. This permits the generation of a number of estimates for some missing years for all parishes (except Delgany, for which the data is exceptionally good), but does not allow the derived estimates to be devalued through being generated unjustifiably.

Table 45 – Number of annual-interpolations permitted for each parish, as the deficiency-requirement is progressively relaxed (the number of years permitted is in bold typeface).

Deficient years permitted	Aghowle	Athy	Blessington	Bray	Carlow	Castlemacadam	Delgany	Donaghmore
0	0	1	0	0	0	0	0	2
1	4	3	0	3	0	3	0	3
2	8	4	1	5	6	5	0	4
3	13	6	3	8	7	11	0	8
4	21	7	6	16	7	11	0	11
5	24	10	9	26	11	11	2	11

Deficient years permitted	Dunlavin	Monkstown	Newcastle	Powerscourt	Rathdrum	Tullow	Wicklow
0	1	0	2	0	0	2	1
1	4	3	3	1	1	2	3
2	6	4	6	3	1	3	3
3	7	7	7	3	1	4	3
4	7	15	7	8	2	4	4
5	7	22	7	9	4	8	7

Note: the less stringent the requirement underlining the annual interpolation for deficient years, the greater number of estimates that can be made. Permitting two deficient years within the two quinquennia on either side of any year appears to represent the best compromise between boosting the size of the dataset available for analysis and preventing the introduction of speculative data.

Clearly, this process is not foolproof and it can lead to the introduction of errors in the data. The number of baptisms for a particular year may have varied significantly from the numbers during any of the previous or succeeding five years. However, in general, it is highly likely that any modifications made according to this rule will operate more to reduce that to introduce errors. Appendix 27 outlines tests that were been performed to verify the assumptions underlying the annual interpolation stage (stage 4) and shows the process to operate tolerably well. In that appendix, estimate-values, based on the above methodology, have been calculated for each year for Delgany, Wicklow and Rathdrum, and compared against the actual figures for that year, and as is shown, in most cases the estimated figure differs from the actual figure by less than 20 per cent. As the annual number of baptisms for most parishes is of the order of between 20 and 50 per year, then it is statistically unlikely that most estimates are significantly (no more than between 5 and 10) inaccurate.

By applying this annual-interpolation methodology to the data that has been progressively cleansed by the three previous stages (the baptismal graphs in

appendix 25), the following graphs plot the resultant adjusted baptism levels for each of the parishes under examination. The thick green columns indicate the annual interpolation estimates (stage 4), the data shown in red indicate data that was generated by the monthly interpolation process outlined in stage 3, and the blue columnar data shows the annual totals of baptisms that are listed in the parish registers.

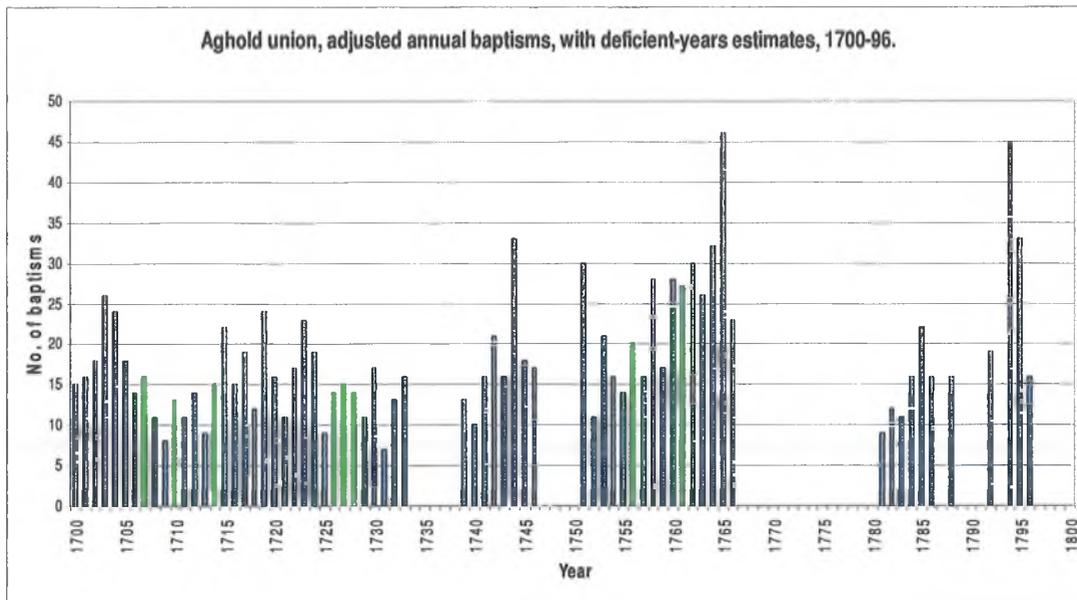


Figure 27 – Aghowle union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules (stage 3) applied to reduce monthly deficiencies (none permitted under the applied method), and with annual interpolation estimates (green columns) for eight deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 522.1.1).

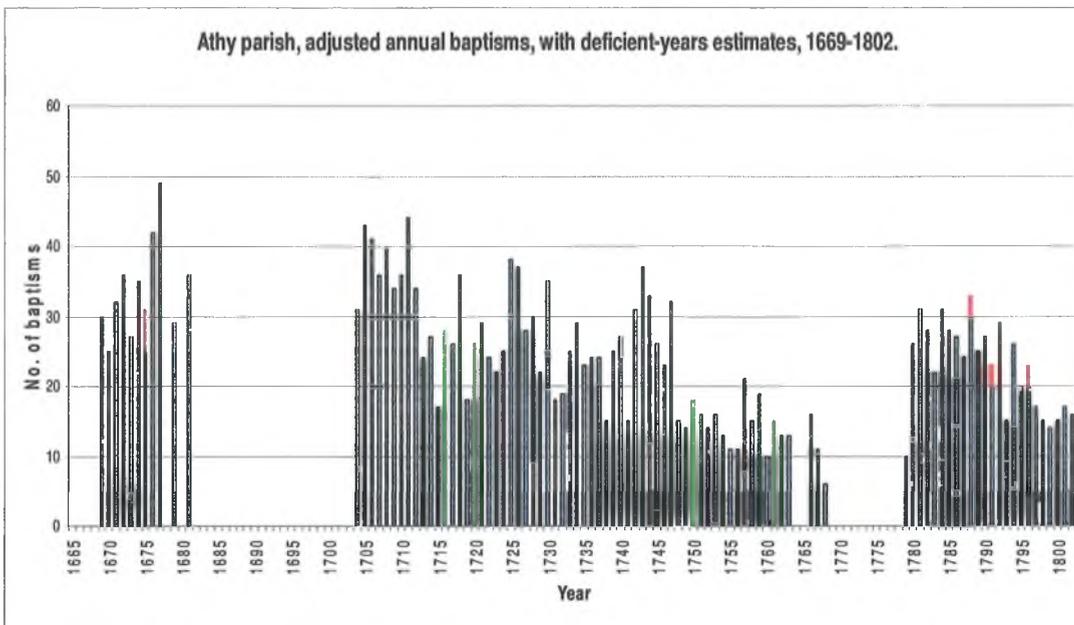


Figure 28 – Athy union, adjusted annual baptism totals, with deficient years excluded (stage 2) and with interpolation rules (shown in red) applied to reduce monthly deficiencies (stage 3), and with interpolation estimates (green columns) for four deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 630.1.1; 630.1.2; 630.1.3).

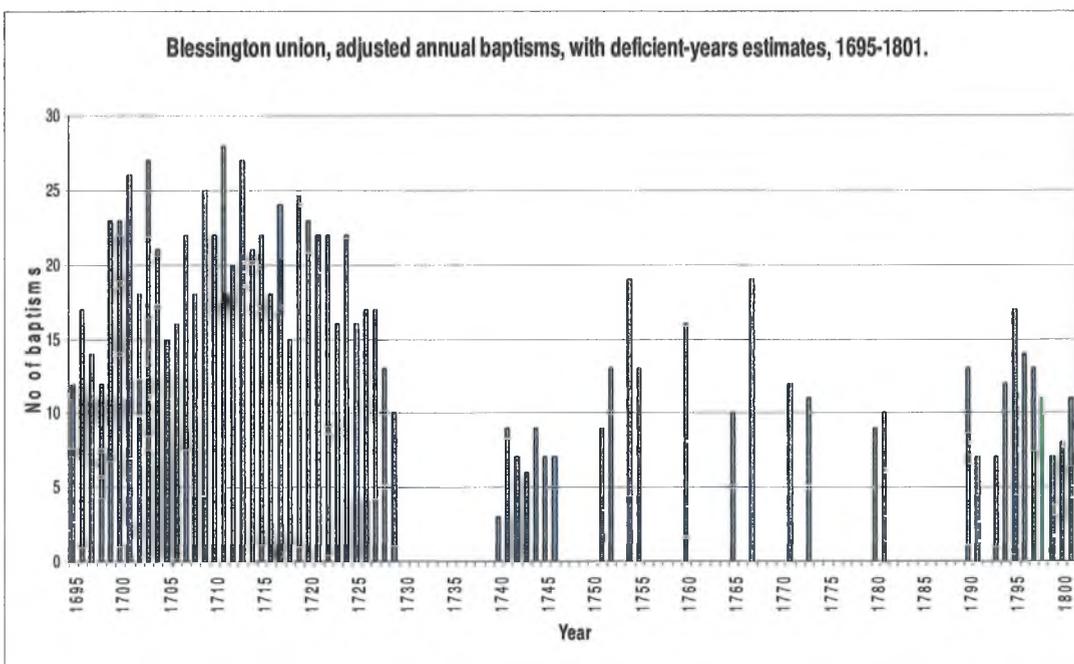


Figure 29 – Blessington union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules (stage 3) applied to reduce monthly deficiencies (none permitted under the applied method), and with annual interpolation estimates (green column) for one deficient year (stage 4) (source: base data from R.C.B. Lib., MS P 651.1.1).

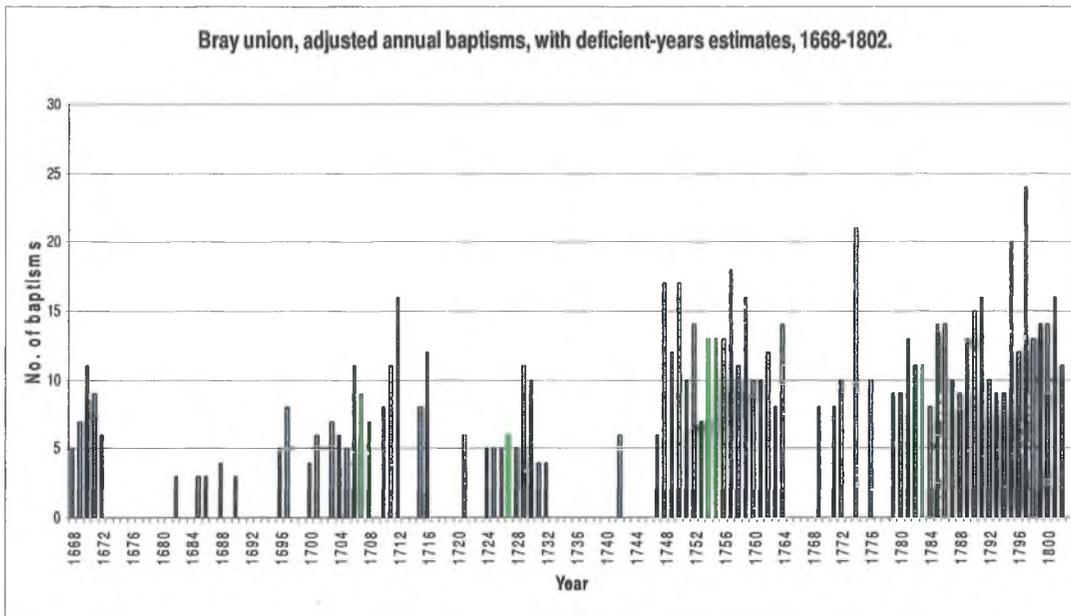


Figure 30 – Bray union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (none permitted under the applied method), and with annual interpolation estimates (green columns) for five deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 580.1.1; 580.1.2).

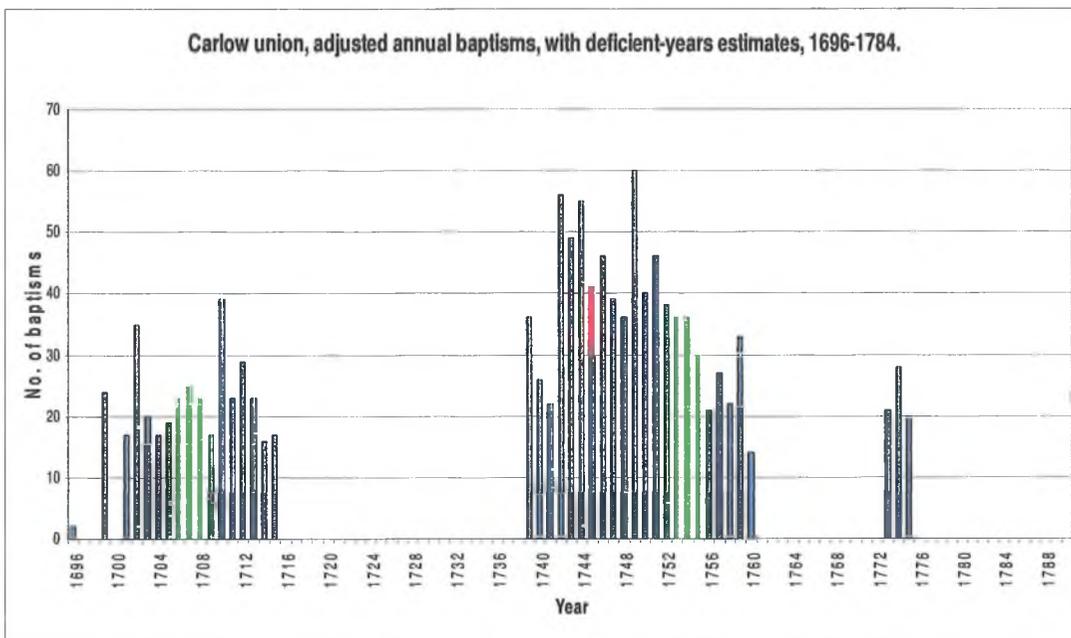


Figure 31 – Carlow union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (shown in red), and with annual interpolation estimates (green column) for six deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 317.1.1; 317.1.2).

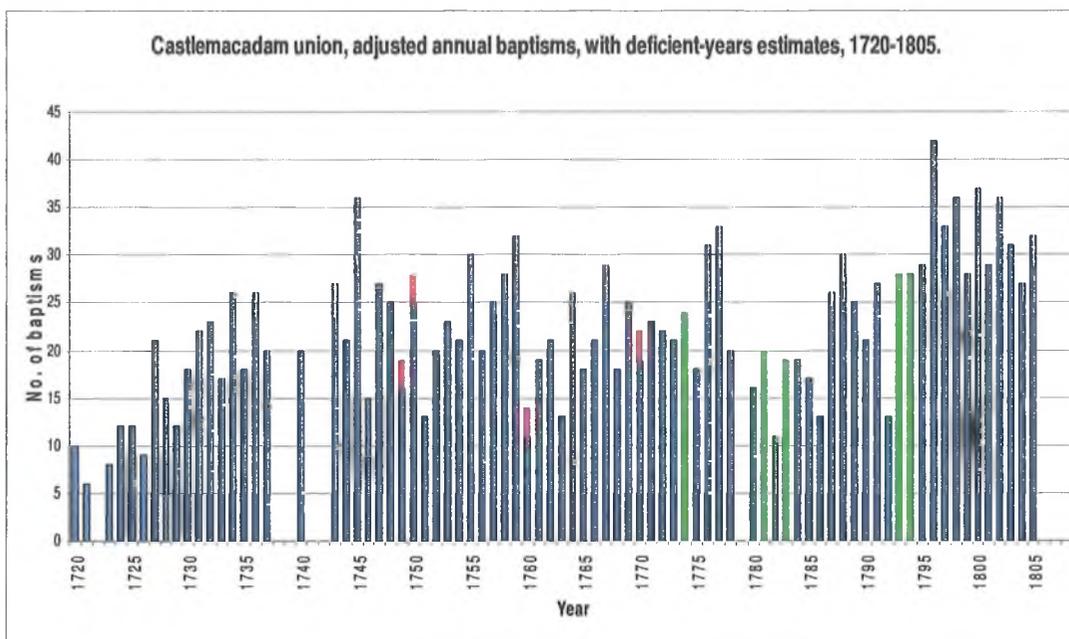


Figure 32 – Castlemacadam union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (shown in red), and with annual interpolation estimates (green column) for five deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 534.1.1; 534.1.2).

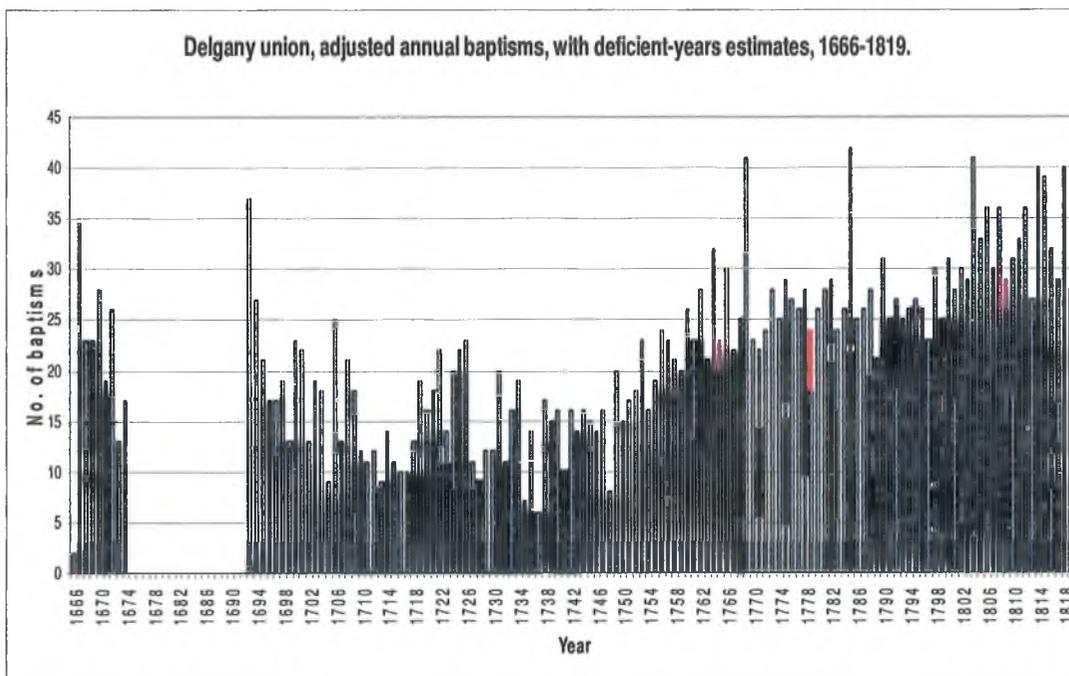


Figure 33 – Delgany union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (shown in red). The data cannot be improved by annual interpolation (stage 4) because there are no gaps to fill in. The only gap is the substantial gap in the late-seventeenth century, but the rules for interpolation do not permit estimates on such boundaries (source: base data from R.C.B. Lib., MS P 917.1.1; 917.1.2).

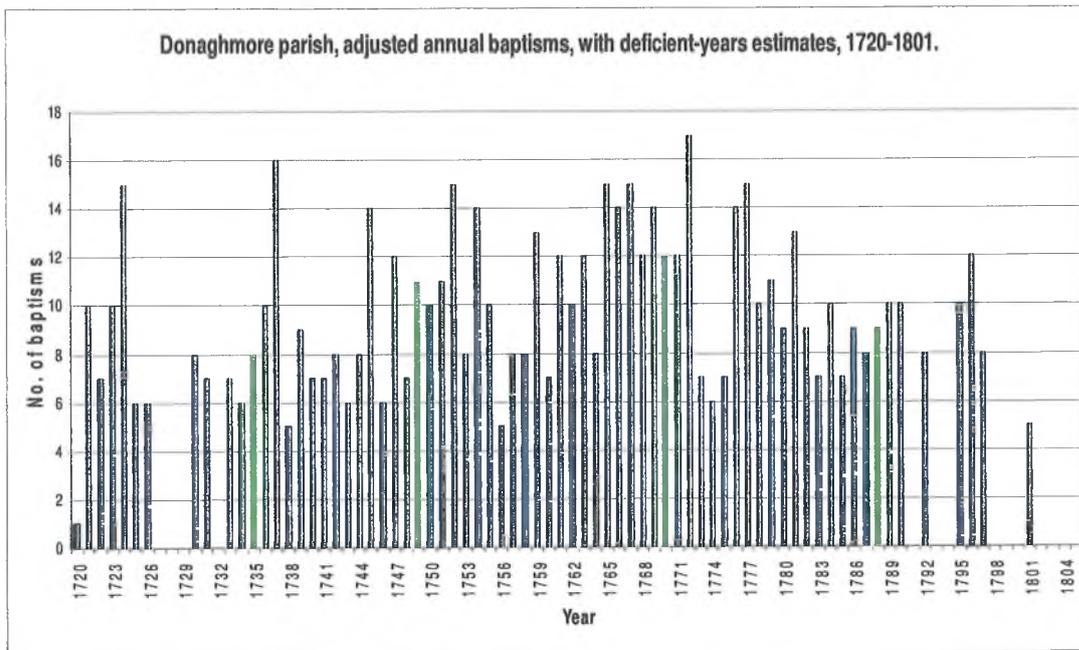


Figure 34 – Donaghmore parish, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (none permitted under the applied method), and with annual interpolation estimates (green columns) for four deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 274.1.1).

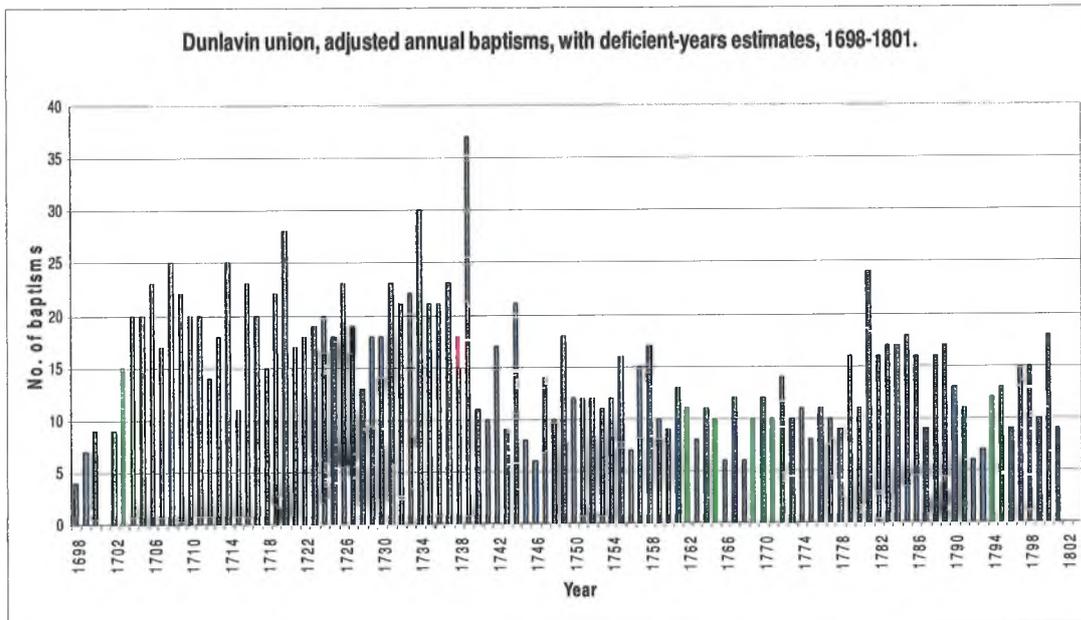


Figure 35 – Dunlavin union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (shown in red), and with annual interpolation estimates (green column) for six deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 251.1.1).

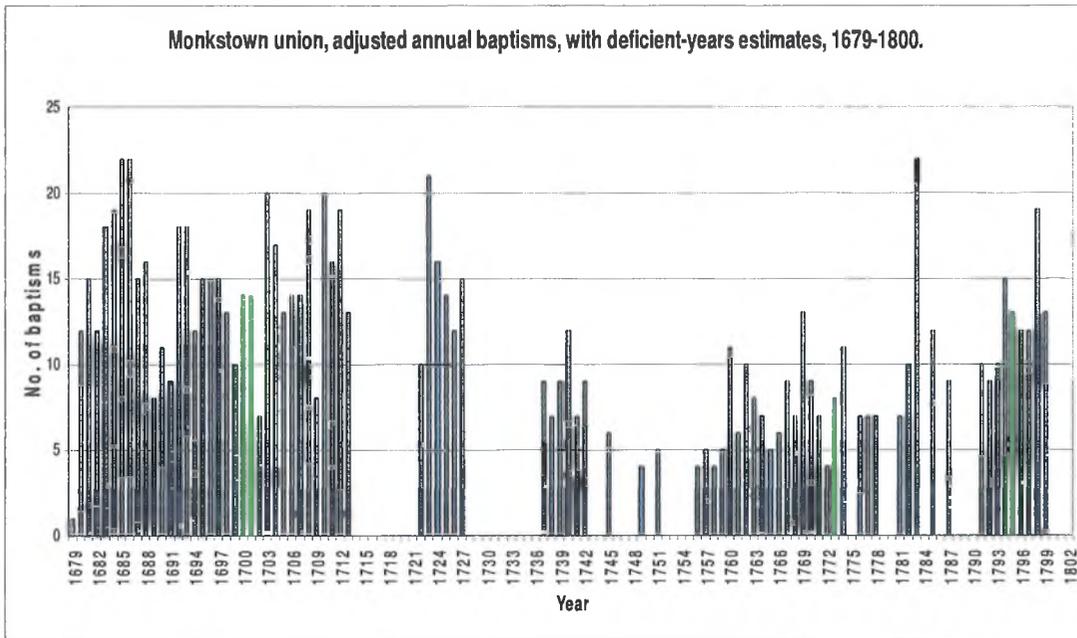


Figure 36 – Monkstown union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (none permitted under the applied method), and with annual interpolation estimates (green columns) for four deficient years (stage 4) (source: Guinness, *Parish registers of Monkstown*).

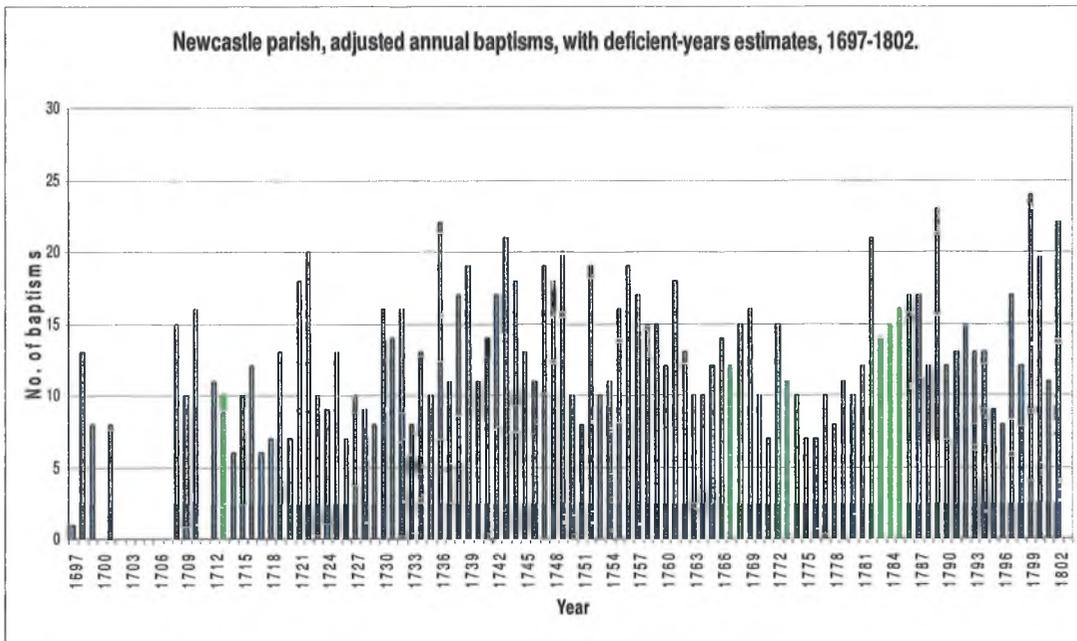


Figure 37 – Newcastle parish, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (none permitted under the applied method), and with annual interpolation estimates (green columns) for six deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 914.1.1; 914.1.2; 914.1.3).

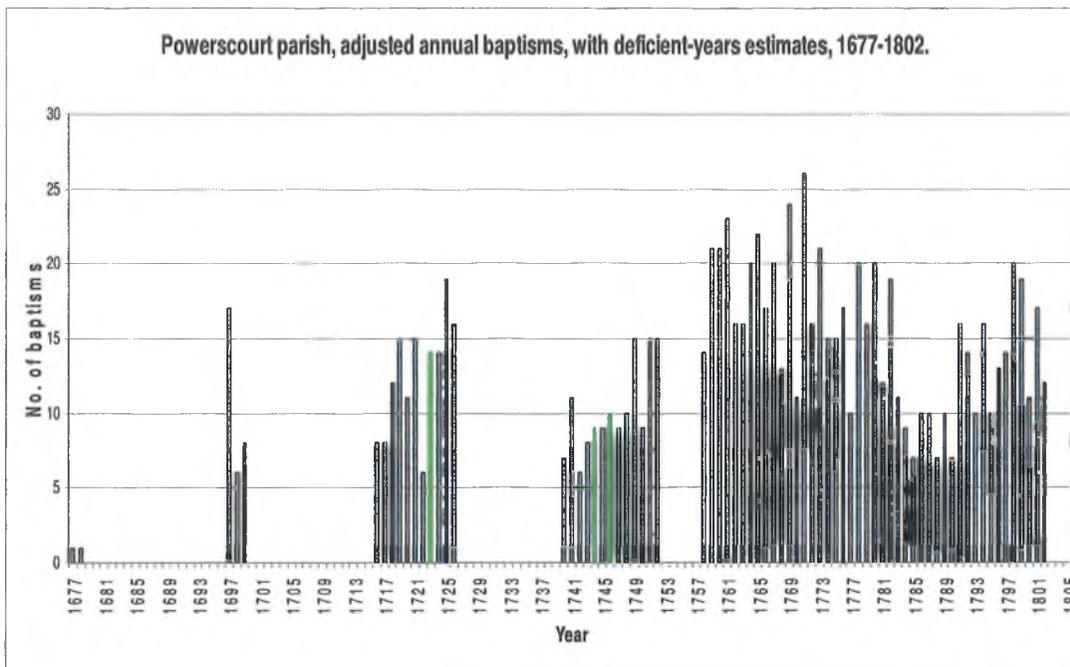


Figure 38 – Powerscourt parish, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (none permitted under the applied method), and with annual interpolation estimates (green columns) for three deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 109.1.1; 109.1.2; 109.1.3).

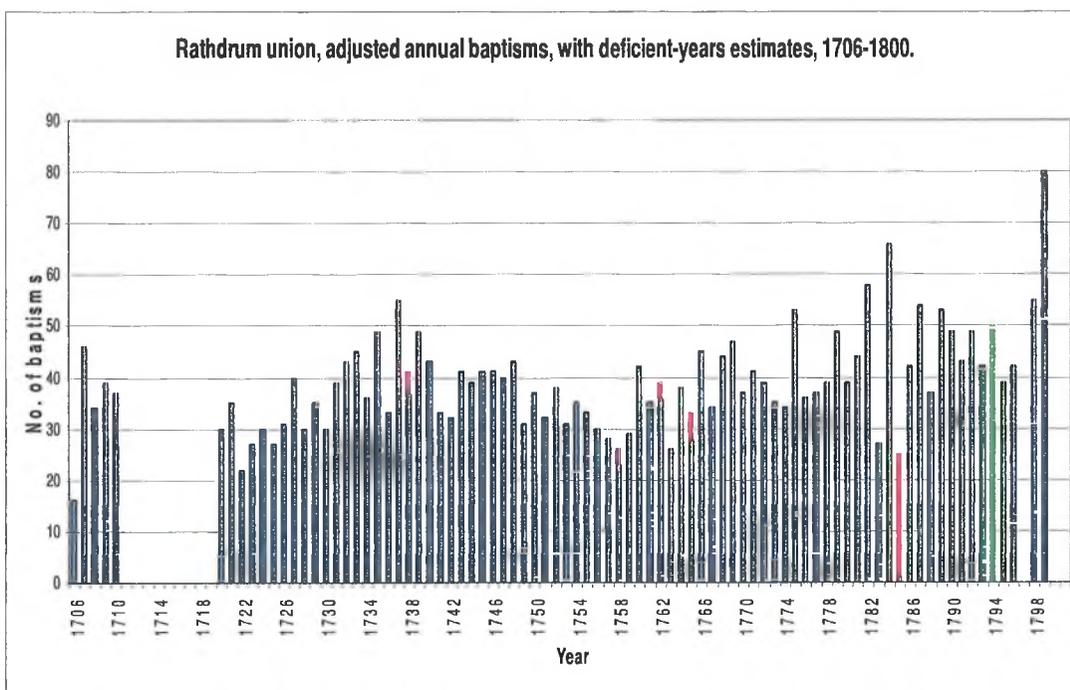


Figure 39 – Rathdrum union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (shown in red), and with annual interpolation estimates (green column) for one deficient year (stage 4) (source: base data from R.C.B. Lib., MS P 377.1.1; 377.1.2).

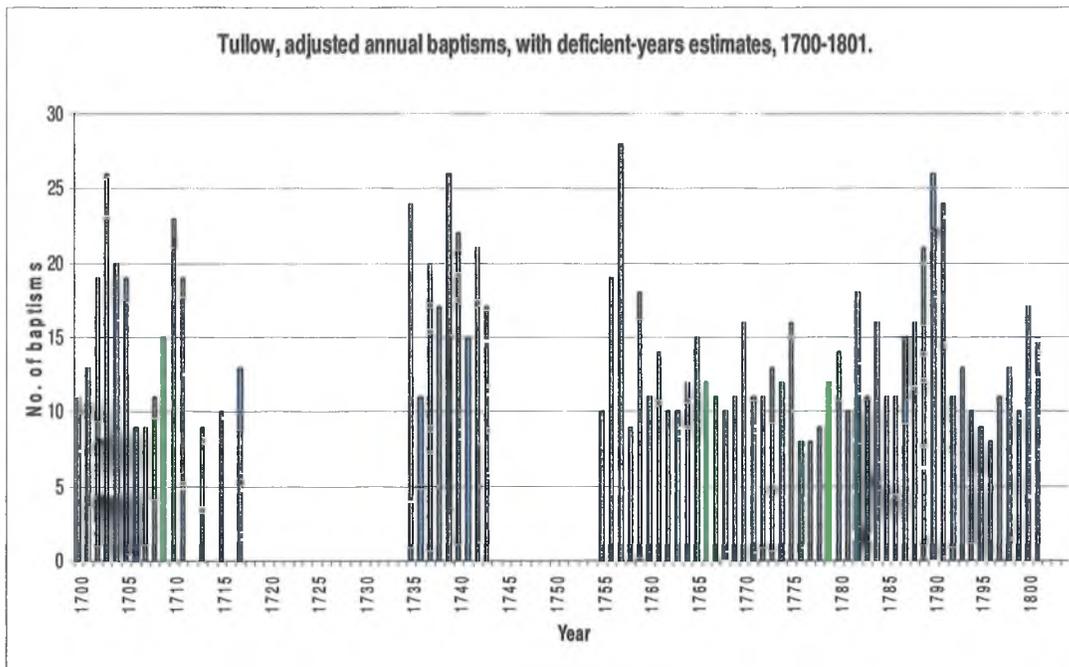


Figure 40 – Tulow union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied (stage 3) to reduce monthly deficiencies (none permitted under the applied method), and with annual interpolation estimates (green columns) for three deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 356.1.1).

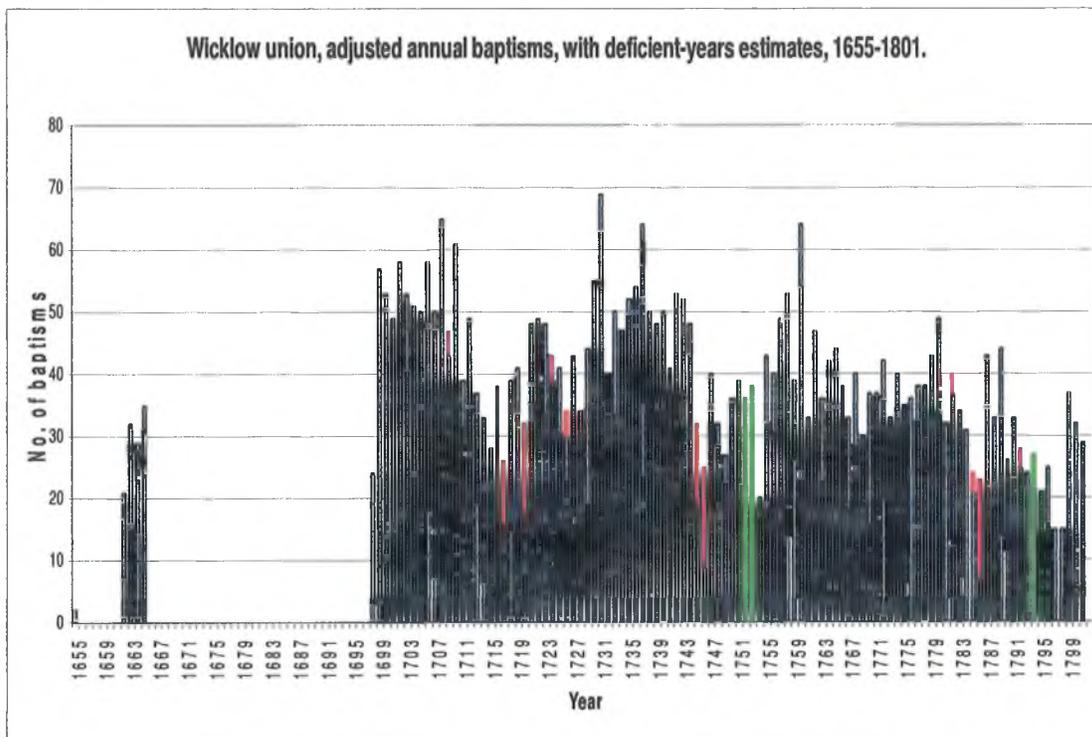


Figure 41 – Wicklow union, adjusted annual baptism totals, with deficient years excluded (stage 2), with interpolation rules applied to reduce monthly deficiencies (stage 3), and with interpolation estimates (green columns) for three deficient years (stage 4) (source: base data from R.C.B. Lib., MS P 611.1.1).

Protestant population trends, a consideration

At this stage the annual aggregates for baptisms and burials for all parishes have been considered, an evaluation as to their reliability has been decided upon and, where possible, likely deficiencies have been remedied, principally through either monthly or annual interpolation. The cleansing process need not be considered complete at this stage – there are numerous further operations that could be performed in order to identify likely further errors – but each operation that is performed to cleanse the data can also introduce unquantifiable errors and there comes a stage when the marginal benefits of a prospective operation are too small to justify the effort. Thus, at this stage the modified annual baptism aggregates, displayed in figures 27 – 41, and the modified burial figures, shown in appendix 25, are probably as good as can be hoped for.

Having derived adjusted figures for the number of baptisms and burials it is now necessary to proceed to examine evidence of changing rates for vital events and of likely population trends. If it is assumed for the time being that the adjusted number of baptisms accurately reflects the number of births and the number of burials reflects the number of deaths then the adjusted figures for baptisms and burials can be used to determine the rates of change of fertility and mortality, two of the key indicators of population growth. This is a significant assumption, and will be examined in greater detail elsewhere, but for the moment positive correlations between births and baptisms and deaths and burials will be presumed. It will be seen later that this presumption is more likely to be accurate for baptisms than burials, as baptisms typically were recorded more thoroughly than were burials.

As was seen in Wrigley and Schofield's demographic model (figure 24), fertility is influenced by various factors, such as nuptiality and real wages. In a rural Irish pre-industrial economy the real wages concept may appear somewhat remote, but in essence the 'real wages' link equates to economic conditions, which is a strong influence on contemporary demographic trends. According to the model, the 'real wages' influence operates to depress fertility in times of economic downturn, while during more favourable economic times the impact is positive and fertility levels are boosted. Since the above reconstruction has produced

reworked and corrected annual baptism totals (which are assumed to equate to birth), then it should be possible to examine if the theoretical impact of the economic cycle on the fertility rate was actually manifested in County Wicklow in early-modern times.

There are various ways by which trends in fertility (and mortality) can be examined, but a useful method involves comparing current levels with levels in the recent past. Thus, for a particular year, one can examine how the birth (baptism) (and death, or burial) level compares with the mean level over an adjacent, past period. The length of this past period can be arbitrarily determined (any duration can be justified), but a ten-year period does not seem out of place. Thus, the mean number of baptisms recorded during the previous ten years (including the year in question) will be termed the *past-decennial mean, inclusive* (PDMi). Nine or eleven years are no less suitable, and ten years is chosen purely for mathematical convenience. Having decided on the period, then for each year for which acceptable baptism figures are available, the figures can be compared with the mean for the preceding period.

An example will clarify this process. If the number of baptisms recorded in a parish in 1700 is 90, but the PDMi for 1700 (the mean number of baptisms for the years 1691-1700) is 100, then the difference between the actual and PDMi figures for 1700 is -10. Thus, the level of fertility in 1700 is -10 per cent of the level that was experienced in the recent (ten- year) past, and the fertility-level trend can be said to be falling. Some obvious difficulties with this process emerge, principally revolving around the years for which no reworked baptismal aggregates are available. First, it is clearly not possible to compare the fertility level during years for which re-worked baptismal aggregates cannot be determined, because there is no data available for the purposes of comparison. Compounding this, however, because the process requires the comparison of annual baptism levels with baptism levels over the previous decade, then the lack of data for one year does not just impact on the determination of fertility comparisons for that year, but also hampers the determination of fertility comparisons for each year within the following ten-year period. Again, considering the above example, if there are no baptism-estimates for, say, 1691,

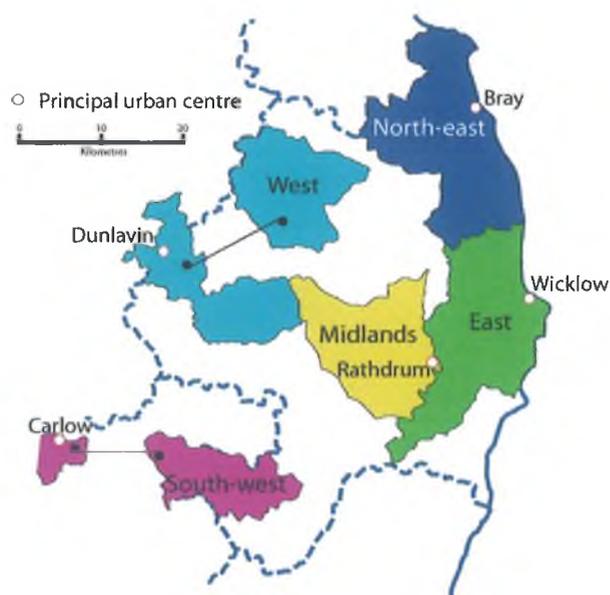
then this will impact on the PDMi figures determined for all years within the period 1691-1700. Thus, the absence of an aggregate number of baptisms for a particular year impacts on the calculation of the proportionate deviation of the actual number of baptisms from the PDMi for the subsequent decade.

If PDMis were not determined for these years then the process would be unworkable – there would not be sufficient data to allow for the determination of all but a handful of proportionate deviations at most, and to surmount this, it is necessary to lessen the strict rule governing PDMi-comparisons for a particular year; instead of calculating the PDMi for a year only if there are valid data for the preceding decade, the PDMi will be determined from all of the accepted yearly totals in the preceding decade. Thus, if for 1700 there are only 7 years in the 1691-1700 decade with accepted baptismal aggregates, then the PDMi will be the mean of these seven aggregates, and so on. This change impacts most severely at the commencement of a register (for example, if a register commences in 1700, then there is no data at all for the previous decade), but after the first ten years of registration, the process works well.

To further reduce the impact of gaps, the process has been performed on a regional basis, rather than on the data for each individual parish. The regions that will be employed are listed in table 46 (see figure 42 and table 47 for cartographic and demographic details). These regions have been arbitrarily determined – any number of different regions could be used – but broadly reflect the regional division and physical diversity of the Wicklow region, which was discussed in the introduction. Furthermore, it is by no means coincidental that extra-parochial linkages within these individual regions tend to be stronger than the linkages that parishes may have had with parishes in neighbouring regions. Thus, for instance, Newcastle parish had very close, historical links with union of Delgany, to the north in comparison to its southerly neighbour, Wicklow, which merits its inclusion in a region with the former parish.

Table 46 – Five arbitrary regions, which are useful for reducing the impact of deficient registration.

Region	Description
North-east	This contiguous region will include the Wicklow parishes of Newcastle and Powerscourt, and the union of Delgany, the large union of Monkstown in south-east Dublin and the union of Bray, which straddles the boundary between the two counties. These parishes contained strong Protestant settlements in the eighteenth century. The registers for all parishes commence in the latter half of the seventeenth century, and are typically well maintained, but all exhibit periods of poor registration.
East	Included in this region are the contiguous unions of Wicklow and Castlemacadam and Dunganstown parish. Arklow parish, further to the south, would also have been included here, but no early registers have survived.
Midlands	This comprises just the union of Rathdrum. Mountainous Derrylossary parish, to the north, would also fit within this region, but the surviving registers do not commence until the nineteenth century.
South-west	This region is not contiguous. It includes the union of Aghowle in Shillelagh barony, and the parishes and unions of Tullow, proximate to Aghowle, and Carlow, at a greater remove. It was decided to include Carlow in the data, because the registers are well recorded for a period, and contain some useful, unique, information.
West	This region is not contiguous, and neither is the data particularly good. It includes the unions of Blessington and Dunlavin, both of which straddle the border with County Kildare, and Donaghmore parish.



Region	Families in 1766		
	Prot.	Cath.	Total
East	452	1,304	2,026
North-east	451	1,575	1,756
Midlands	181	546	727
South-west	492	1,273	1,765
West (only Blessington)	94	281	375

Table 47 – Denominational status of the five arbitrary regions (table 46) in 1766 (source: Comerford, *Kildare and Leighlin*, iii, pp 404, 406; Guinness, *Registers of Monkstown*, pp 93-7; N.A.I. MS 2476 (i); R.C.B. Lib., MS P. 522.5.1; R.C.B. Lib., MS 37, ff 6, 7-8, 9-17).

Figure 42 – Spatial view of the five arbitrary regions that are listed in table 46.

Although there are considerable advantages to adopting a regional approach in order to examine fertility or mortality trends, problems arise too. Since all parish registers contain gaps, and since it would be only coincidence if these gaps coincided with gaps in other registers within their region, this means that complete regional aggregations of baptisms or burials can rarely be achieved for an entire region, which operates to frustrate the process of regional aggregations. This problem need not be considered insurmountable, however. While ideally it would be possible to compare baptismal and burial trends for a complete region, an acceptable compromise involves determining the fertility and mortality trends just for the parts of the region for which data is available, and presuming these trends to be reasonably reflective of conditions throughout the complete region. Taking the north-east region as an example, if data is available for all five parishes for a particular year, then the baptismal total are summed for each year and compared with the sum of each parish's PDMi figures for that year. In this case, the resulting statistics are representative of the entire region. If, however, data is only available for some parishes, then only the PMDi and actual baptism totals for those parishes are summed, and the resultant statistic for the region is determined by only those parishes. Although in this case the trends are not determined by the dataset for the entire region, they can be viewed as

guideline figures, from which the full-regional statistics, if they had been calculable, probably would not have deviated greatly.

There are other advantages to adopting a regional rather than a parish view. Plots showing trends for a handful of regions are clearer than graphs showing the trends for fifteen individual parishes, and the impact of dramatic fluctuations that can occasionally be seen in the data for an individual parish, are reduced. Finally, the trends have been presented by quinquennia and decades, rather than on a yearly basis. This is also desirable, because graphs which showed the changing levels per year are largely unreadable. Since the decision as to which quinquennia and decades will be used is also arbitrary – one could use, for example, the quinquennia periods 1655-9, 1660-4 series, or one could just as rationally use 1656-60, 1661-5 series (or any other of the five options for quinquennia, and ten options for decades) – for convenience, the quinquennia employed are those which commence with a terminal digit of ‘0’ or ‘5’ (1655-9, 1660-4, 1665-9.....) and the decades are those with a terminal digit of ‘0’ (1650-9, 1660-9, 1670-9.....). The baptismal and burial data derived from this process is presented in appendix 28 and quinquennial and decennial plots of the baptismal results are shown in figures 43 and 44, and equivalent plots for burials are shown in figures 45 and 46. It is to be remembered that although these figures present trends within the Protestant community, Catholics would likely have been comparable trends for some periods, particularly during times of intense subsistence difficulties.

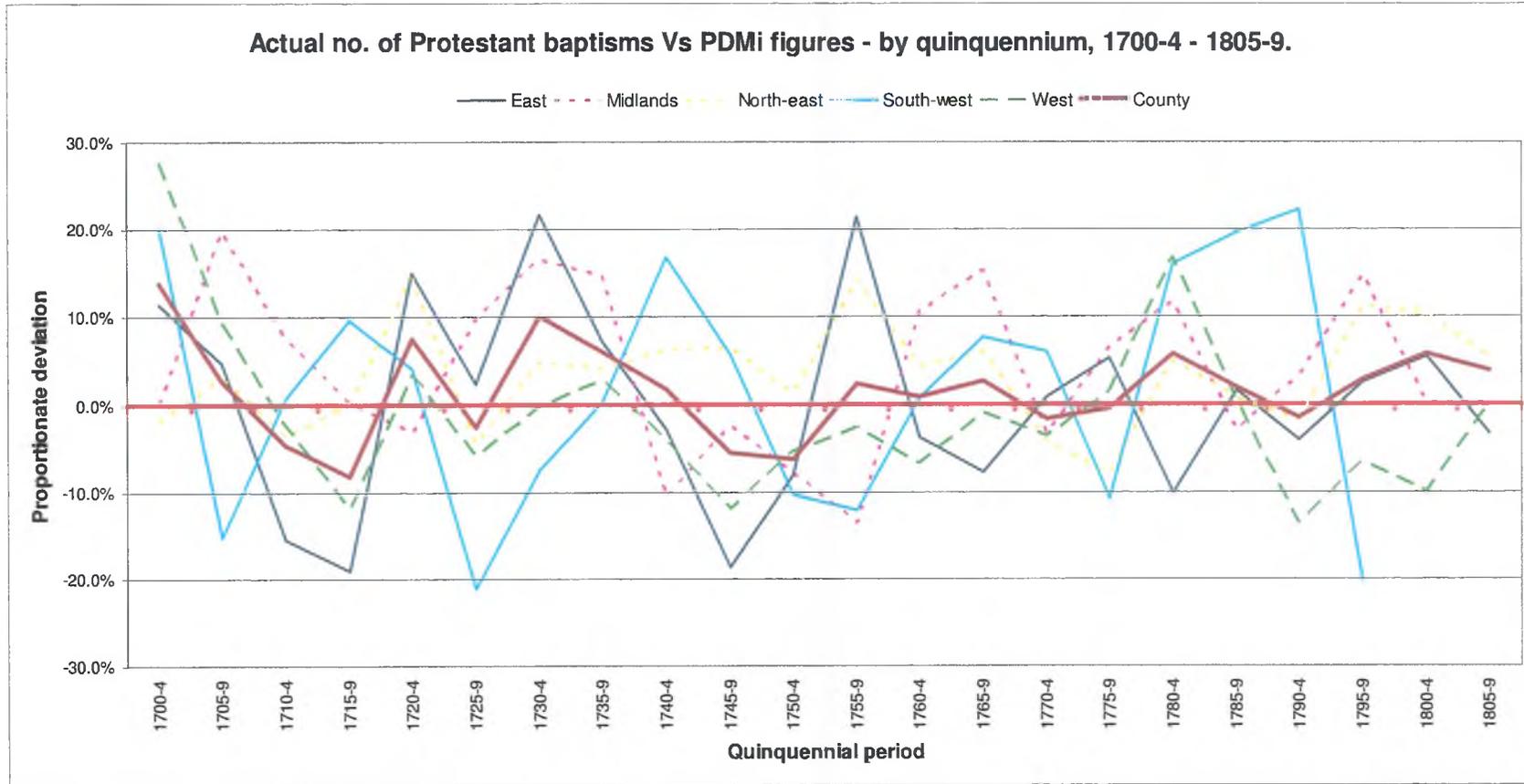


Figure 43 – Proportionate deviation of the total number of Protestant baptisms from the PDMi mean number of baptisms for each quinquennial period (with the opening year of the period terminated by either 0 or 5), 1700-4 – 1805-9.

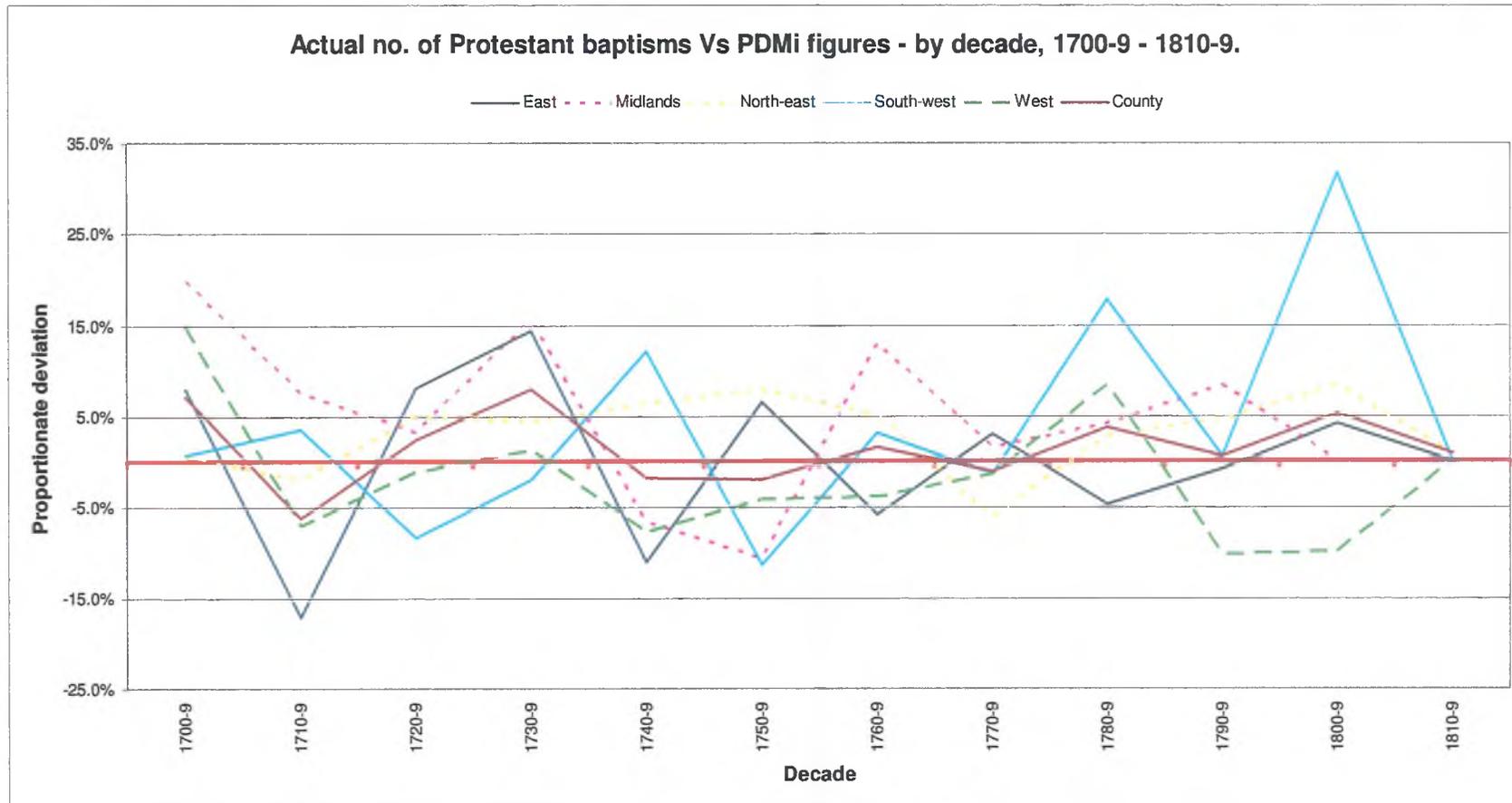


Figure 44 – Proportionate deviation of the total number of Protestant baptisms from the PDMi mean number of baptisms for each decade (with the opening year of the period terminated by 0), 1700-9 – 1810-9.

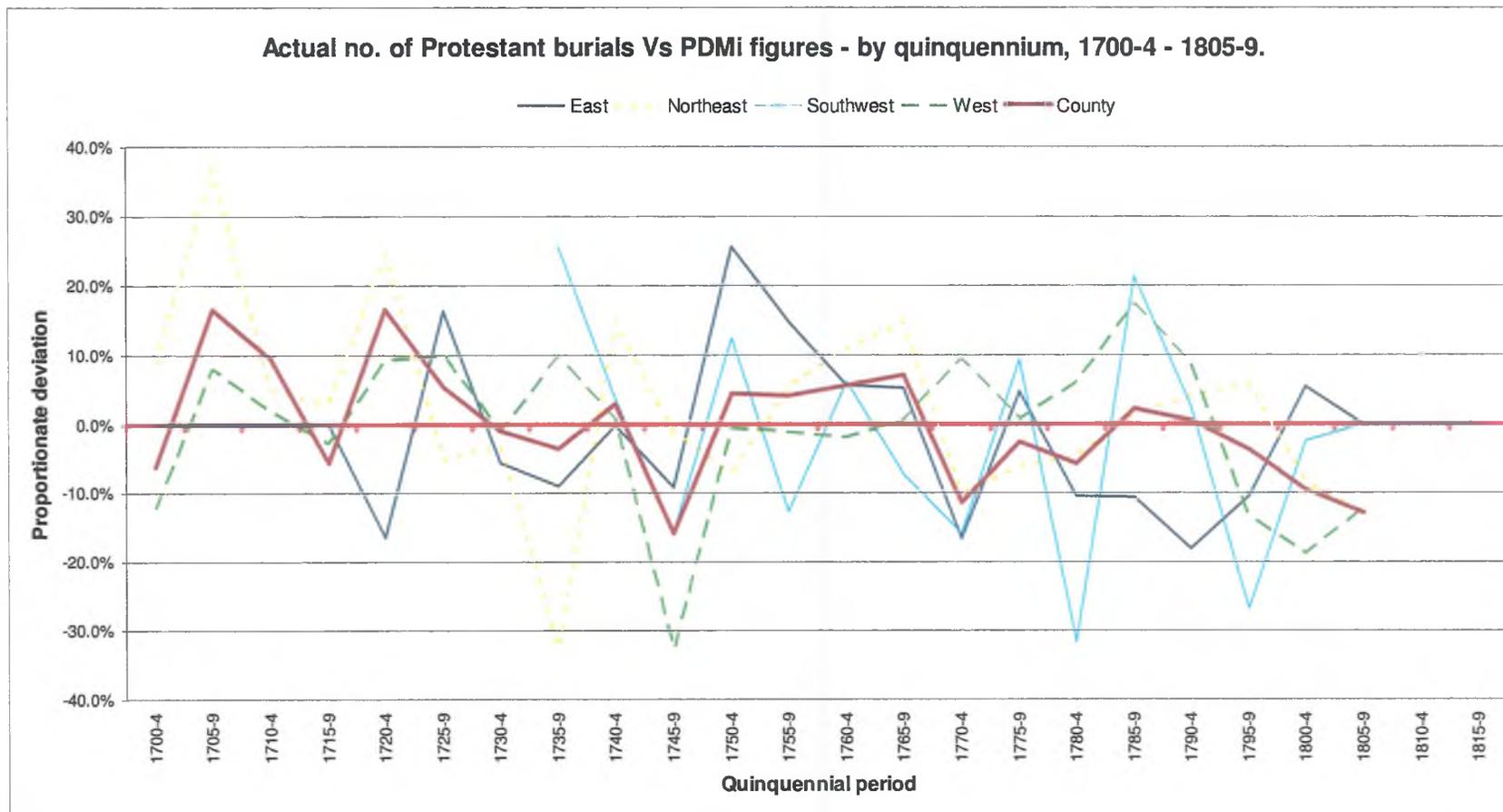


Figure 45 – Proportionate deviation of the total number of Protestant burials from the PDMi mean number of burials for each quinquennial period (with the opening year of the period terminated by either 0 or 5), 1700-4 – 1805-9 (Midlands (Rathdrum union) not included because of poor registration).

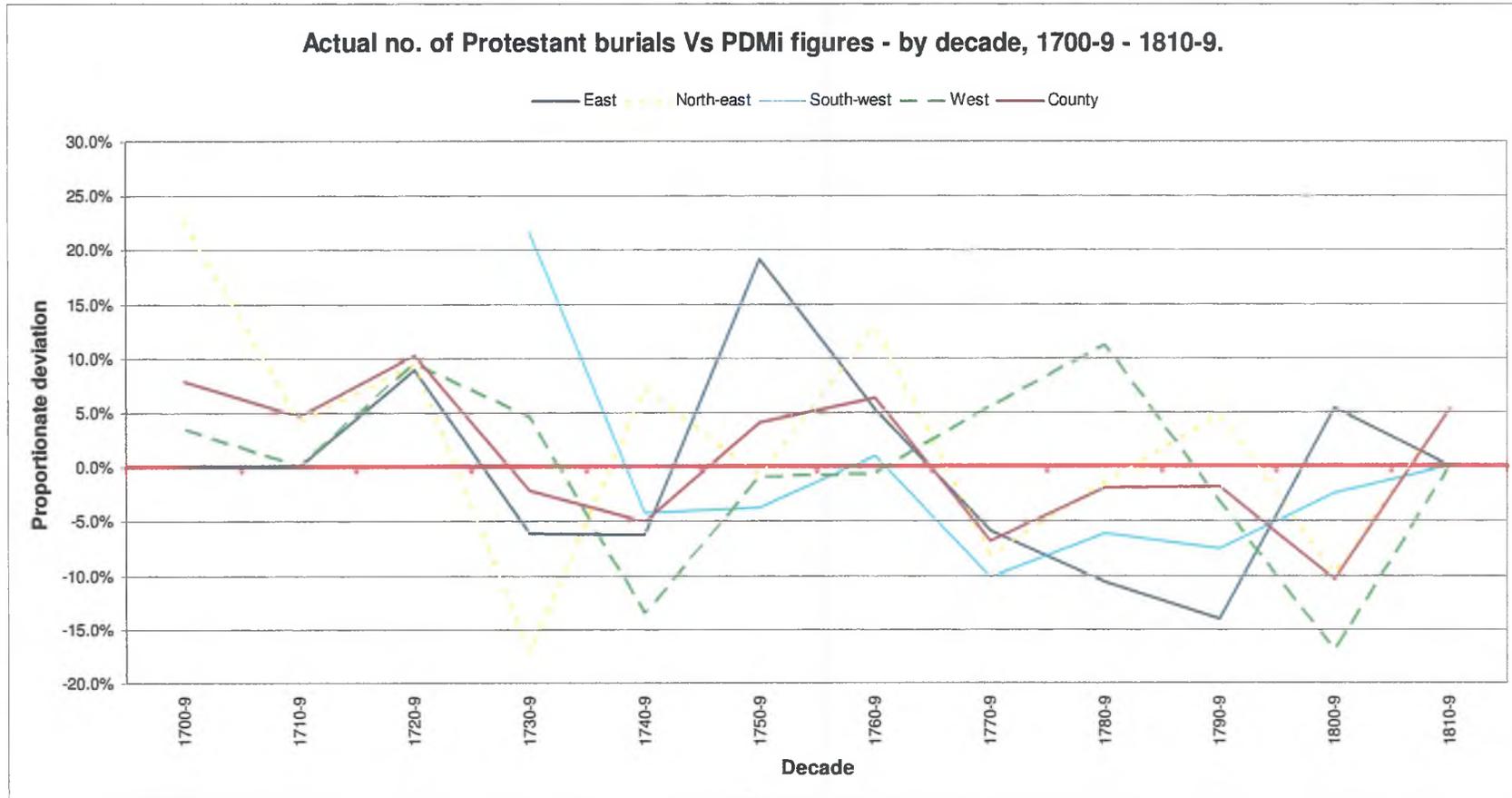


Figure 46 – Proportionate deviation of the total number of Protestant burials from the PDMi mean number of burials for each decade (with the opening year of the period terminated by 0), 1700-9 – 1810-9 (Midlands (Rathdrum union) not included because of poor registration).

These four graphs represent the first tentative view of the dynamics of fertility and mortality within the Wicklow region in the pre-census period, although the data is insufficient to allow any firm conclusions to be drawn about the course of fertility or mortality trends much before the commencement of the eighteenth century. Most parishes were either not keeping registers during the seventeenth century, or else the surviving data is of poor quality. Even Delgany, the parish with the most comprehensive run of baptismal recording from the post-Restoration period, was not recording during much of the 1680s and 1690s, perhaps because of the troubled political situation at that time. However, bearing in mind the typical link between public confidence and fertility, which was considered earlier, it could be expected that Protestant fertility may have declined as the 1680s progressed and as the Catholic interest came to the fore, and then rebounded in the aftermath of the Williamite victory. If this typical pattern was evidenced then any decline in births during the 1680s would largely have been offset by increased fertility during the first half of the 1690s. Evidence for this correlation between Protestant-confidence and Protestant-fertility at this period is scant, although the pattern of baptisms in the union of Naas – a parish which has not been included in the general greater Wicklow data, although it is reasonably proximate to Wicklow – does back up that this hypothetical correlation (figure 47). The Naas registers commence in 1679, and the quality of the recording declines after 1696. However, during this brief period baptismal recording appears to have been generally diligently attended to. Baptisms peaked in the union in 1682, when twenty-four were recorded, but thereafter a notable, rapid decline in baptisms occurred, so that in 1688, at the height of James II's power, only nine children were baptised. Baptisms remained depressed during 1689, 1690 and 1691, but in 1692, with the Stuarts defeated, they rallied again, to twenty-one, from which level they gradually fell back over the next few years. Supporting evidence for this trend is supplied by Colin Thomas's study of Templemore parish, in which he observes a possible substantial drop (a reduction of 5 or 6 years) in the mean age at female marriage in the decade after the Williamite victory, which, although that need not equate directly to increased fertility,

certainly provides one of the social conditions necessary for increased marital fertility.⁷⁴

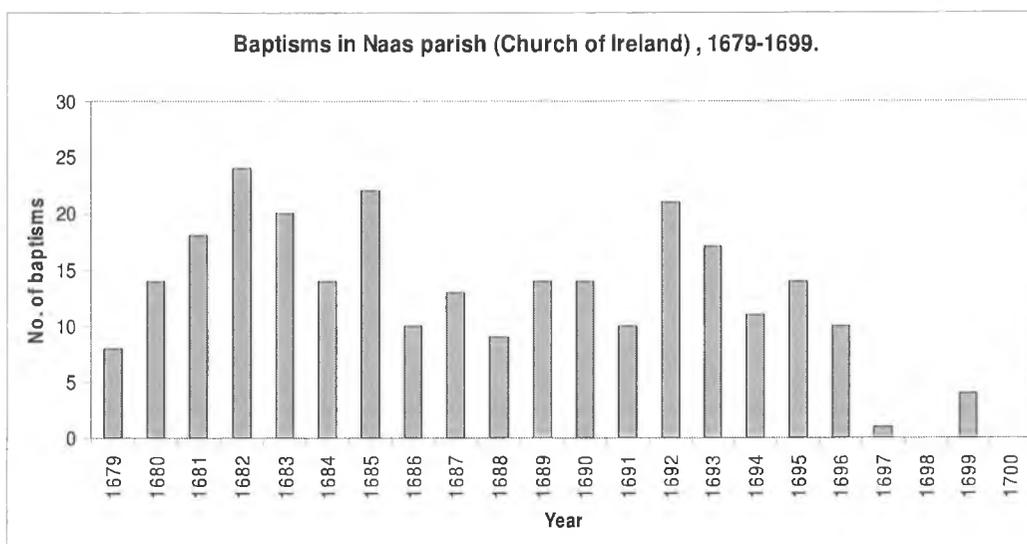


Figure 47 - Naas parish, annual baptisms, 1679-1699 (source: Register, parish of Naas, 1679-1830 (R.C.B. Lib., MS P. 487.1.1, ff 3-9v)).

If the data for Naas are considered in conjunction with the Delgany and Monkstown figures – the only two parishes in Wicklow and its surrounding area which were recording baptisms during part or all of the 1690s, this hypothesis is further reinforced (figure 48). The annual number of baptisms recorded in the Monkstown registers closely follows the pattern exhibited in Naas. In particular, a mid-1680s peak was followed by a significant decline during the period 1686 to 1691. In the following year, baptisms in both parishes increased noticeably, but fell back to more typical levels by 1694. In 1692, baptisms in Monkstown were more than 50 per cent above the mean number of baptisms recorded in the previous five years, whilst in Naas they were 75 per cent higher. Unfortunately, this period coincided with the one serious gap in recording in Delgany parish, although when good recording recommenced in 1693, the level of baptisms was running at an unprecedented level. It could be speculated that some of these were delayed baptisms, resulting from the troubles of the time, but this seems certain to be incorrect. Ralph Rule, the rector, had fled to England in 1689, until the following year, so any delayed baptisms should have been processed during 1691

and 1692, soon after his return.⁷⁵ Furthermore, eight marriages are recorded for Delgany during 1692, a level which was not subsequently exceeded for 125 years, when nine marriages were celebrated in 1817.⁷⁶ It is also notable that the 1693 spike in baptisms is not primarily influenced by the increase in marriages in 1692 because only one of these eight marriages contributed to the 1693 baptism figure.⁷⁷ Rather does it seem more likely that the Delgany baptismal peak represented an unprecedented spike in the level of conceptions, as Protestants celebrated their deliverance from the Catholic King James.

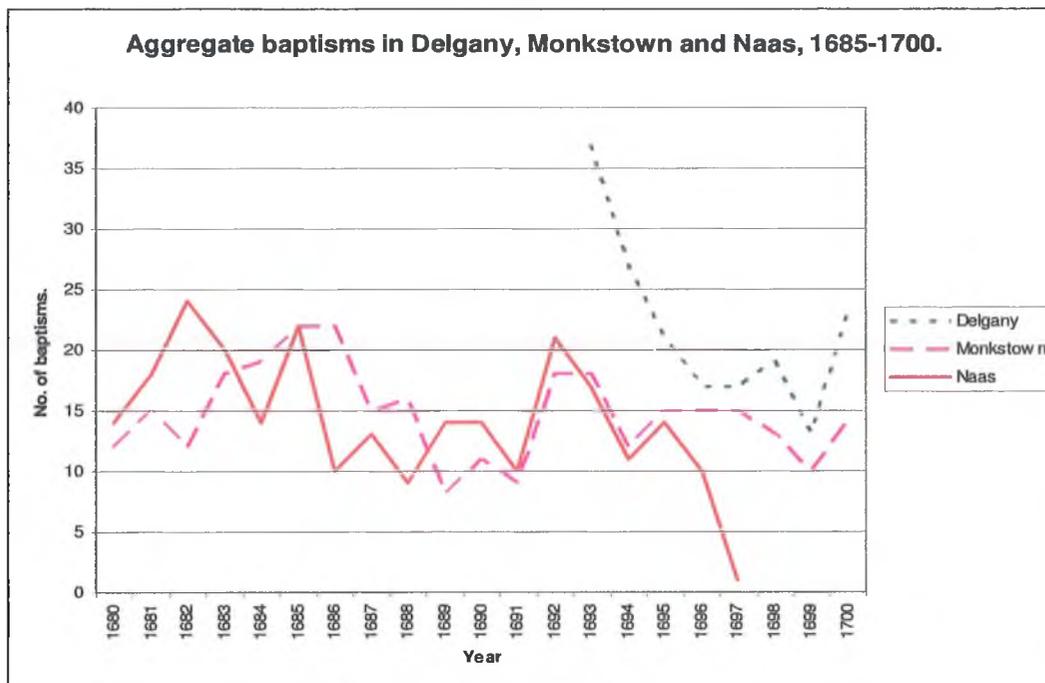


Figure 48 - Annual baptisms in Naas, Monkstown and Delgany unions, 1680-1700.

The late 1690s may have been a period of severe scarcity in Wicklow, although the evidence for this is inconclusive. Through an analysis of trends in corn prices, Rosalind Mitchison has described the 1696-9 period as a 'terrible set-back' in Scotland, declaring it to have been the 'last Scottish famine',⁷⁸ and England and France also experienced severe scarcities during this decade.⁷⁹ Louis Cullen has suggested that harvests in Ireland in the 1690s were 'well above average in a decade in which harvest failure was quite common in Europe',⁸⁰ although things may have taken a turn for the worse in the closing years. High

prices, caused by a general European dearth, brought benefits for some,⁸¹ but problems for most, and a series of proclamations, commencing in July 1697, were issued in Ireland in order to prevent the export of corn. The difficulties were further compounded by the 'unseasonable' harvest of 1698.⁸² These prohibitions against export were maintained until April 1700, when the harvest recovered, although Louis Cullen has described the quantity export of corn to Scotland in 1699, despite the proclamations, as 'enormous'.⁸³ Liam Kennedy notes that the rural cost of living index hit ranged exceeded 120 in both 1698 and 1699 (1698-1703 = 100), a level which was not subsequently attained until 1715, and not again until the terrible crisis of 1740-1.⁸⁴ Notably, the number of baptisms recorded at this time in the registers for Delgany, Monkstown and Naas all show a marked decline from the mean levels recorded during earlier years. Bearing in mind the harvest difficulties and dearth of foodstuffs in this country, the increased cost of living and the constancy of the problem in Britain and France, it seems probable that this drop is a manifestation of declining fertility amongst a population which had been weakened by the uncertain economic situation at this time.

The opening years of the first decade of the eighteenth century appear to have been a more propitious period, devoid of serious harvest failures and mortality crises, and as can be seen in figures 43 and 44, the fertility rate was generally increasing throughout the region. This was particularly the case in the first half of the 1700s, with the two western regions leading this demographic advance. Protestant fertility in the eastern regions was more muted, particularly during the first half of the decade. Laterally, during 1708 and 1709 harvest failure again occurred and the typical demographic response, of reduced fertility, again evidenced.

By the 1710s, the fertility rate appears to have been depressed throughout Wicklow (figures 43 and 44), which would lead to speculation that the region was experiencing difficulties. The evidence suggests any downturn was particularly concentrated in the latter half of the 1710s, but regional trends are elusive. This lack of regional trends is most clearly illustrated if two of the regions with the most trustworthy records – the contiguous regions of east (Wicklow) and

north-east (centred on Bray) – are considered. One could reasonably expect contiguous areas to exhibit some degree of consistency with respect to their mortality and fertility trends, but this is clearly not the case for this period. In the eastern region the fertility-level decline during the years 1710-4 was compounded in the succeeding five-year period, but in the north-east the fertility rate rallied, after dropping during the earlier quinquennium. Supporting evidence for difficulties during the late 1710s is provided by the contemporary house-count returns for the county, which advance significantly between 1706 and 1718, rising from 6,575 in 1706 to 6,999 in 1712 (increase of 1.1 per cent per year), and to 7,490 in 1718 (increase of 1.1 per cent per year), but by 1725 the number of houses had fallen back marginally, to 7,385.⁸⁵ Although this represents a decline of just 0.2 per cent per year between 1718 and 1725, the first years of the 1720s were economically favourable,⁸⁶ so it is reasonable to presume that the decline in housing must have been concentrated between 1718 and 1720, and must have been significant.

Less ambiguity surrounds the fertility trends for the 1720s (figures 43 and 44), which confirm that period as an exceptionally difficult decade. The latter half of this decade was characterised by very serious subsistence crises resulting from successive harvest failures. During the first five years of the decade government concern focussed on the outbreaks of plague in southern Europe,⁸⁷ but by the latter half of the 1720s the prospects of plague had given way to the certainty of famine, and during this period a more consistent and regular pattern is evidenced in the fertility and mortality trends. It seems certain that Wicklow was impacted by the widespread, prolonged scarcities and harvest failures of the late 1720s. In all regions during the period 1725–9, with the sole exception of the region around Rathdrum, fertility rates dipped in response to the crisis. Rathdrum's unique experience is curious, and may be related to distinctive agricultural practices in that region (figures 10 and 17). The crisis was brought about predominantly by a failure of grains, but arable agriculture, particularly prominent in the coastal strip (north-east and east regions) was less important in the pastoral, upland region, centred on Rathdrum.

The south-west region seems to have been particularly affected by a falling birth-rate in the late-1720s, but this may be less a reflection of a true fertility drop than of problematic, poor-quality data. In all other regions the trends in fertility were consistently downwards, after the rally in the earlier part of the decade. Unlike during the preceding quinquennium, the trend in the mortality rate was the mirror of the fertility rate trend, which represents the typical demographic response of a population to a serious demographic crisis.

Having surmounted this subsistence crisis, the Protestant fertility rate rallied throughout the region, during the 1730s, a decade which uniquely appears to have been devoid of any serious subsistence crises (figures 43 and 44). The recovery in the fertility rate, which occurred simultaneously with a declining mortality rate (figures 45 and 46) presents further evidence about the general population patterns that were observed in chapter two. In that chapter it was argued that the Protestant population in 1732 was exceptionally large, but by 1766 it had declined in both relative and absolute terms, but the plots of the fertility and mortality rate trends (figures 43 - 46), suggest a steadily increasing Protestant population during the 1730s, which implies that any decline in the Protestant position between 1732 and 1766 must have been concentrated in the quarter-century after 1740, and possibly in the aftermath of the early-1740s famine.

The demographic rally of the 1730s was abruptly terminated in the 1740s and 1750s when most regions witnessed a prolonged period of gradually reducing birth-rates, coupled with increasing death rates. The midlands (mountainous Rathdrum) and the east regions appear to have been particularly susceptible to declining Protestant fertility in the early 1740s. Furthermore, the demographic difficulties of the early 1740s, were sustained, with the mortality rate gradually increasing over a three-decade period (figures 45 and 46). The exception to this was during the late-1740s, when the mortality rate trend declined, as the immediate difficulties, occasioned by the shock during the first half of that decade, receded. The trend in the fertility rate was less consistent, and was negative for the county as a whole during the 1745-9 and 1750-4 quinquennia. However, figures 43 - 46 only show *trends* in the fertility and mortality rates, rather than the *actual*

rates and it is not certain that these trends explain the erosion in the Protestant population which was observed in the 1730s – mid-1760s period. Even before the harvest failures of the mid-1760s the position had begun to stabilise and for the last four decades of the eighteenth century, the Protestant fertility rate fluctuated moderately in most regions. The two western regions were exceptional to this pattern, exhibiting wildly swinging fluctuations after 1780. Unfortunately, the burial data for these two regions are insufficient to attempt and correlation comparisons between the sets of data, so no firm conclusions can be arrived at.

Thus far, this discussion has centred on regional trends, primarily because, for many parishes, the data is of insufficient quality to permit a comparable analysis to be performed. This is particularly the case with the burial data, which has consistently survived less satisfactorily than have the baptismal records. For a few parishes, however, the data is sufficiently good to permit the examination of comparable trends to those outlined above for the regions. In figure 49 Protestant fertility trends are presented for a number of parishes for which reasonably reliable data are available and figure 50 shows the burial trends for three parishes. Clearly, figure 49 shows a consistency between the patterns and trends in most of the parishes considered here, particularly before about 1760. The fertility rate between 1720 and 1740 was high, and increasing, with the exception of the famine period in the late-1720s. The very high Protestant fertility rate, prefacing the subsistence crisis of the late 1720s, is particularly noticeable, and is evident for all parishes shown, except Rathdrum.

After 1740, the trend in the fertility-level began to fall – in Newcastle, it continued to fall until the 1750-4 quinquennium – and typically continued to decline until about the mid-1750s. During the 1760s the fertility trend again declined, but the last four decades of the eighteenth century were typified by fluctuating fertility rates trends in most parishes. There is less consistency, however, between the various parish trends in the latter decades of the century than is evident for the 1720s, and 1740s-60s, perhaps implying that while harvest failures may have remained a feature of the agricultural cycle, they made less of an impression on the profile of the demographic landscape.

The burial graph (figure 50) presents the data for two contiguous parishes in the east of the county – Delgany and Wicklow – and for Dunlavin parish in the west. Although Newcastle parish has good burial registers, the presence of Catholics in the entries corrupts the data (appendix 21), so it can not be considered. Although the fewer datasets available for burials makes it more difficult to observe identifiable trends, nonetheless there is a comforting homogeneity between the data presented for these parishes after 1745. Before this period the trends can only be determined for Dunlavin and Delgany and no consistency is evident. From about 1770 the mortality rate trends appears to have stabilised in all three parishes.

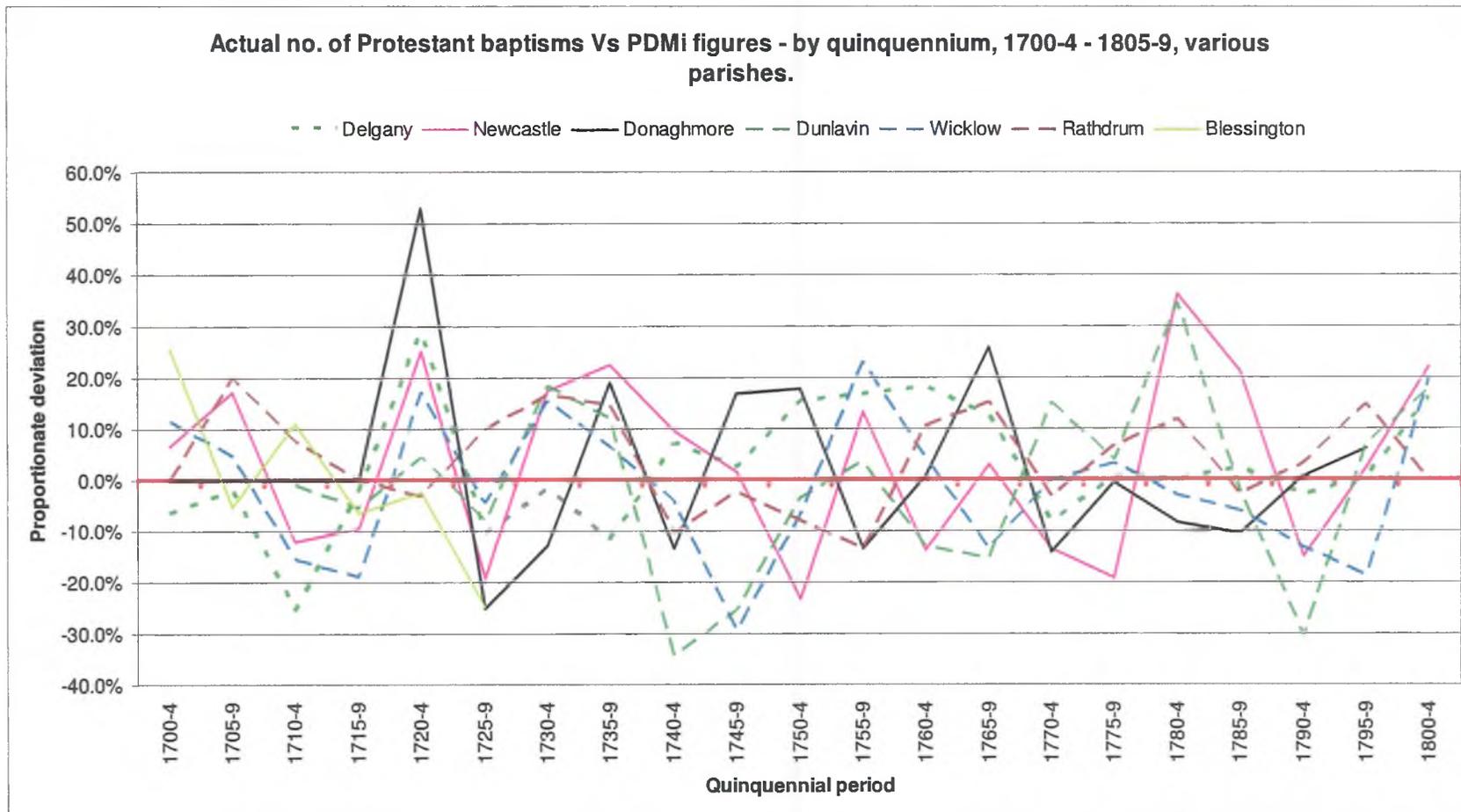


Figure 49 – Proportionate deviation of the actual number of Protestant baptisms from the PDMi mean number of baptisms for each quinquennial period (with the opening year of the period terminated by either 0 or 5), 1700-4 – 1805-9, for various parishes.

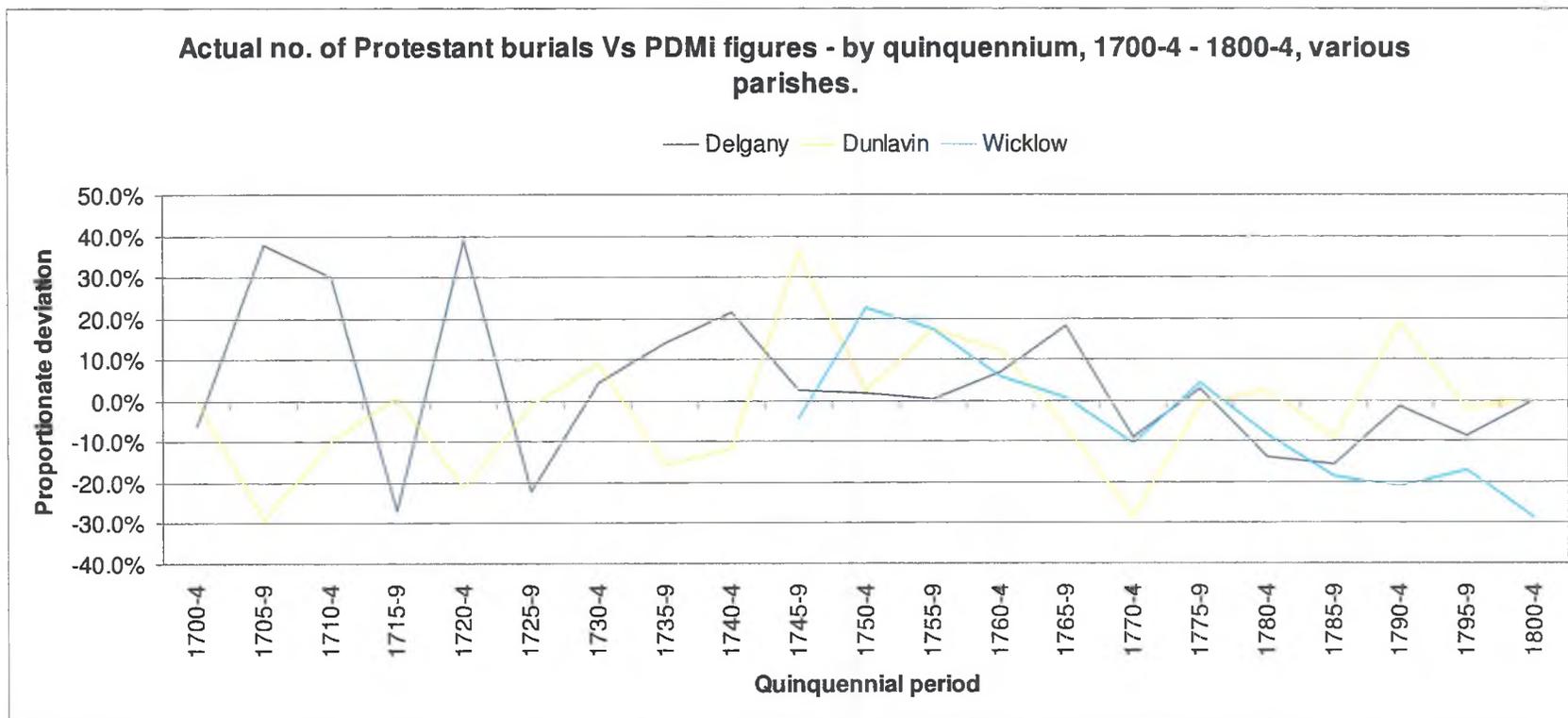


Figure 50 – Proportionate deviation of the actual number of burials from the PDMi mean number of baptisms for each quinquennial period (with the opening year of the period terminated by either 0 or 5), 1700-4 – 1805-9, for various parishes.

Typically, both the regional and parish-specific trends in Protestant fertility-levels and mortality-levels fit comfortably with the general demographic data that were presented in chapter two, and with the general pattern of socio-economic fluctuations that was outlined earlier in this chapter. In chapter two it was observed that the Protestant population in 1732 was at or near a unique zenith, from which it descended over the following three decades. In terms of fertility trends, however, the 1730s appears as a brief hiatus in the general decline in fertility which impacted on the Protestant community between *c.* 1710 and 1755. The arrival of demographic challenges in the late 1720s and, on an unprecedented scale, in the early-1740s⁸⁸ and the subsequent harvest failures during the 1740s and 1750s operated to keep fertility rates depressed. Since public confidence is a key factor underlying a population's progress, Wicklow's Protestant community, highly dependent on grains both as a foodstuff and as a source of finance, had suffered two serious blows within a half a generation, and it is likely that this was the catalyst for a sustained decline in Protestant fertility. This issue will be further probed in chapter six, where it will be argued that the decline in Protestant fertility is in part explained by an increase in bridal age at marriage at this time.

Catholic population trends

Performing a comparable analysis for the Catholic community is thwarted by a general lack of source material. For that population, the Catholic baptismal registers for Wicklow parish are the only registers which provide significant data for the eighteenth century but, in that case, the registers only commence in 1747. Nonetheless, the registers appear to have been diligently attended to until 1781, a period which is covered by two manuscript books, one of which was badly water damaged during a fire and is now in a perilous condition. A third book was extant until a few years ago, when it was microfilmed by the National Library, but it has since been lost. Because it proved difficult to decipher parts of this microfilm copy it was considered appropriate to omit its data for the purpose of this study.

There is a comfort for the historian when dealing with Irish Catholic registration details, which is usually not available from the equivalent non-Ulster Protestant data, because the larger number of entries which can be expected in a typical Catholic register makes the identification of periods of under-registration easier. For the Wicklow Catholic registers, for example, no baptisms are recorded during only ten of the 384 calendar months (thirty-two years calendar years) between the years 1749 and 1780 inclusive, but for the Protestant union of Wicklow, co-extensive with the Catholic parish and boasting one of the most complete sets of registers in the county, twenty-seven baptism-free months occurred during the same period. For other equivalent time-spans (thirty-two calendar years) the number of months with no baptisms increases to as high as forty-nine (between 1767-98), and the lowest number of baptism-free months for this duration during the eighteenth century is twenty (1754-85), which is still double the figure for the Catholic register. In the other Protestant registers which are credited with good registration the situation is no better. The equivalent Rathdrum statistics for the eighteenth century range from twenty-one (1722-53 and 1723-54) to fifty (1766-97 and 1767-98) and for Delgany, from fifty-three (1769-1800) to 135 (1711-42).

With registers which contain a large mean number of annual baptisms, as do the Wicklow Catholic records, Drake's suggested rules for identifying prolonged periods of under-registration (appendix 22, tests 1 and 2) can be applied with greater confidence, whilst the process of interpolation for deficient months is also less fraught. The annual aggregate of Catholic baptismal entries recorded in the registers between 1748 and 1781 is shown in figure 51.

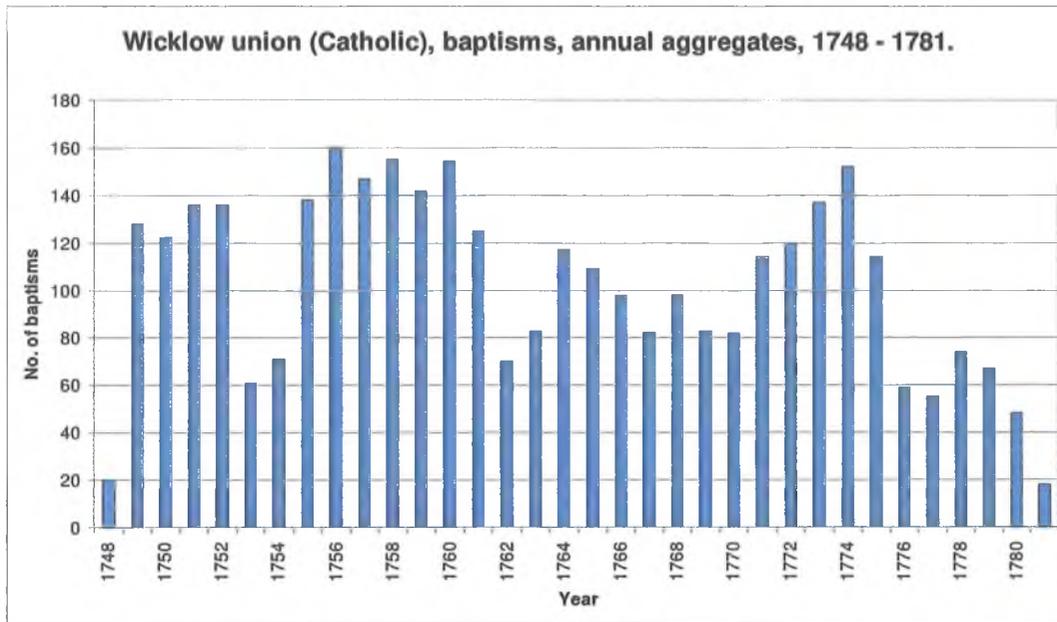


Figure 51 - Aggregate annual baptisms for Wicklow Catholic parish, 1748-1781 (source: Wicklow Catholic registers, in local custody).

In appendix 25, the process by which interpolation was applied to fill in estimates for 'missing months' in the Protestant data is explained, and a similar method can be applied to these Catholic registers. This process is outlined in appendix 29, and produces the results shown in figure 52.

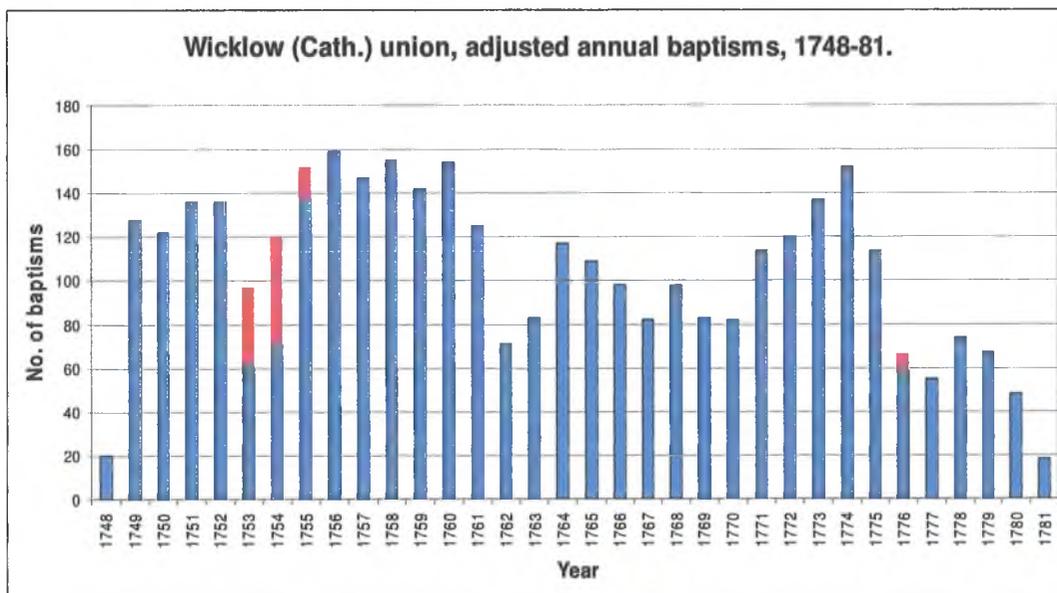


Figure 52 - Aggregate annual baptisms for Wicklow Catholic parish, 1748-1781, with interpolation rules applied for deficient months.

Figure 52 provides a view of the impact of the subsistence crises of the 1750s and the 1760s on the local Catholic population. Between 1748 and 1761 the number of baptisms exceeded one-hundred per annum for all years except 1753, and even for this year the interpolated adjustment boosts the annual baptisms to near that figure (ninety-seven). Thus, although there may have been a slight drop in the number of baptisms recorded in the early 1750s, any decline was insignificant, and may have been an indication of under-recording rather than declining fertility. Baptisms were running at a consistently high level between 1755 and 1760, rising to an all-time peak of 159 in 1756, which suggests that the subsistence crisis of the 'near-famine' in 1756-7, observed by Louis Cullen, did not impact greatly on this parish.⁸⁹ Following 1760, however, an abrupt decline in the number of annual baptisms recorded commenced, covering the three years after 1760. Unlike the dip in the early 1750s, however, this fall-off in baptisms is a reflection of an actual decline in fertility which occurred as a result of the subsistence crisis at the end of the 1750s. By 1762 baptisms had declined to a perilous level and although there are no extant burial records, it is a statistical probability that deaths were exceeding burials at least during 1762 and 1763, and probably during most of the decade. An upswing in baptisms which commenced in 1764 was quickly terminated by renewed subsistence difficulties in the mid-1760s, and baptisms fell below one-hundred per year for each year of the quinquennium 1766-1770. By 1771 baptisms again rose above the one-hundred mark for a five year period, before again declining to a new low level in 1776. It is not clear if the decline of the mid-1770s reflects falling fertility, in the aftermath of the food crisis of the early 1770s but this seems unlikely, as the critical period had passed by 1774. Rather does the consistency of the drop lead to suspicions that under-recording of baptisms was occurring at this period, perhaps caused by different registers being maintained by both the parish priest and his curate.

The likely accuracy of the annual baptismal aggregates shown in figure 52 can be further gauged by contrasting the baptismal aggregates with the surviving hearth tax house-counts for the county for various years in the mid eighteenth century. This comparison is presented in figure 53. A moderate decline in the

number of houses recorded by the tax collectors occurred in 1752 and 1753 (0.2 and 0.6 per cent below the 1749 levels), which coincides with the brief, and modest, decline in fertility evidenced in the parish registers during those years. The rapid improvement in house-numbers between 1753 and 1760 mirrors the consistently high level of baptisms that were recorded in the parish between 1754 and 1760, and the decline in recorded houses by 1766 (0.8 per cent less than the 1760 figures) coincides with the prolonged decline in baptisms during the 1760s. By 1777, however, the county housing total had increased to an all-time high, which contrasts with the parish register figures, and further implies the likelihood of poor registration at that time.

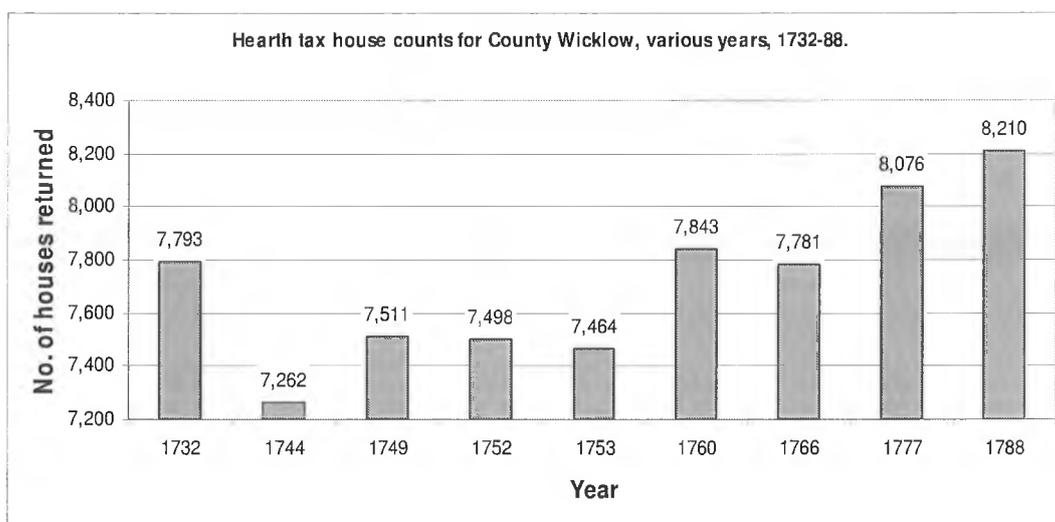


Figure 53 - Hearth tax house-counts for County Wicklow for various mid-century years (source: Dickson, Ó Gráda and Daultrey, 'Hearth tax', pp 177-8.

A view of the mean number of baptisms per annum during successive quinquennia, shown in figure 54, is illustrative of the substantial fluctuations that was impacting on Catholic fertility during this period, and highlights the decline in demographic fortunes experienced by Wicklow's Catholics during the 1760s. From a high of a mean of more than 150 baptisms per year during the period 1755 to 1759, the mean annual number of baptisms declined by approximately a quarter during the first phase of the subsistence difficulties of the 1760s and, a further decline of 15 per cent during 1765-9 (40 per cent below the mean figure a decade previously) was evidenced during the second phase of the crisis. Although

baptisms rallied during the early 1770s, they were still only at four fifths of the levels recorded during the period 1755-9.

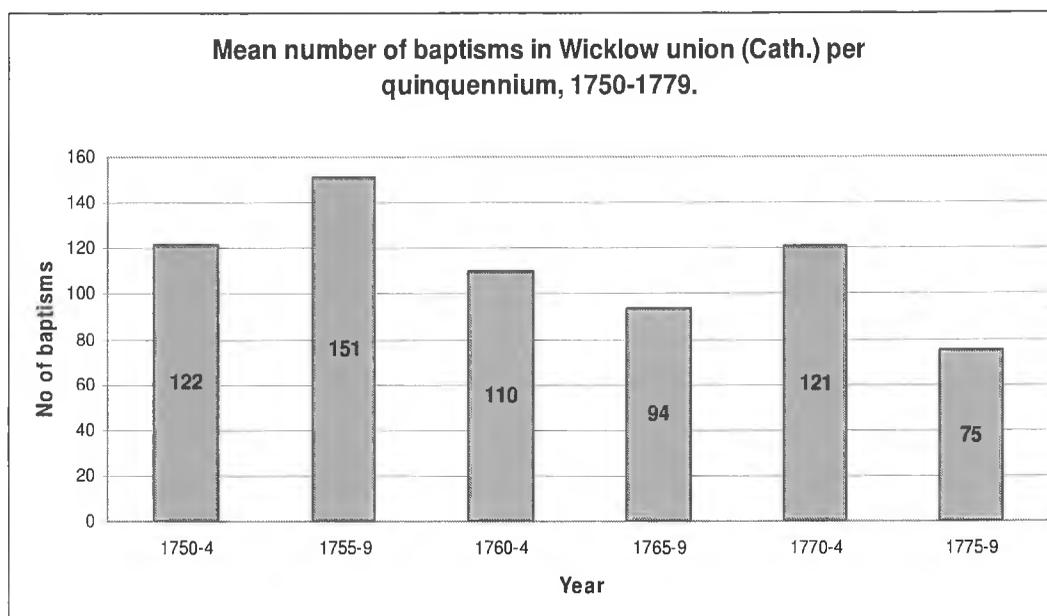


Figure 54 – Mean number of baptisms per year in Wicklow for quinquennia between 1750-79.

Confessional contrasts

There is a notable contrast between the demographic experiences within Catholic Wicklow and Protestant Wicklow during these three decades. Figure 55 show the general trends in baptisms for successive quinquennia between 1750 and 1779 for a number of Protestant parishes in the east of the county and for the Catholic parish. Each parish's data have been normalised to the mean levels for 1750-4 (1750-4 = 100). For all parishes (except Rathdrum) mean baptisms per year were higher in the 1755-9 period than in the initial five-year period. However, during the 1760s the Protestant trends all exceed the figures for 1750-4 whilst the Catholic statistics suggest a decline from the 1750-4 levels. This suggests that there could be a denominational impact to subsistence crises; that the impact of an economic downturn could impact to varying degrees on Catholic and Protestant communities.

The reasons for this are unclear – there could be many. Protestant parishes, smaller, more affluent than their Catholic equivalents and more formally

organised, were better prepared to provide subsistence relief during times of crisis. There may also have been differences between the vernacular diet of Protestants and Catholics at this period, which could also produce distinctive demographic footprints. The potato was rapidly becoming increasingly important during the mid-eighteenth century, at least amongst the lower orders, and was increasingly being viewed as ‘the chief food of the poor’.⁹⁰ It also presented the primary opportunity for sustenance and survival for a burgeoning cottier class, among which Catholics were disproportionately represented. Thus, the failure of the potato crop in 1765 likely had a correspondingly disproportionate impact on Catholic fertility.⁹¹ In support of this, Louis Cullen’s observation that Protestant burials typically remained mooted in the period immediately after a harvest failure – ‘a process of attrition rather than direct and immediate vulnerability’ – may further indicate a contrasting confessional susceptibility to food shortages.⁹²

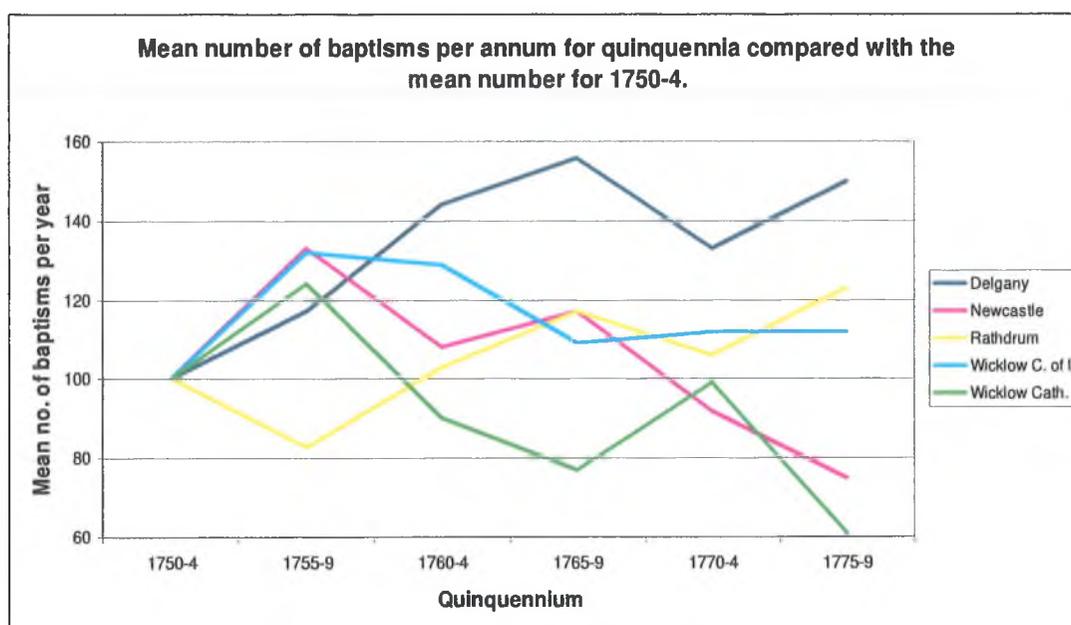


Figure 55 – Mean number of baptisms per year for successive five-year periods between 1750-79 indexed to the mean number of annual baptisms in the 1750-4 quinquennium.

STEP 3 – TRANSLATING CHURCH EVENTS INTO VITAL EVENTS.

Thus far, through the processes and tests outlined in step 2, the discussion has focussed on establishing a demographic framework based on the records of church events (baptisms and burials), but it is births and deaths rather than baptisms and burials records that are fundamental determinants of population change. It is, therefore, necessary to determine how these various church-event data can be translated into vital-event data. In *The population history of England, 1541-1871*, Wrigley and Schofield denoted considerable energies to this process, attempting to make allowances for a steadily increasing divergence between birth-totals and baptism-totals, which became particularly evident towards the end of the eighteenth century, for which they identified two particular reasons;⁹³ the progressive lengthening of the interval between birth and baptism and the growth in non-conformity, especially from the late seventeenth onwards, which depressed the Anglican baptism totals, but also the burial totals, as non-conformist churchyards opened.

Fortunately, the difficulties associated with translating baptisms to births and burials to deaths, for County Wicklow, are less exaggerated, for a number of reasons. In the first instance, non-conformity was, quite obviously, a huge problem in County Wicklow. As was seen in chapter two, in most areas the Protestant population did not exceed 30 per cent of the population throughout the eighteenth century, and in many areas the proportion was significantly lower. Because of this, the degrees to which English Anglican registers represent the *total* population in England (reasonable until the beginning of the 1780s⁹⁴) and Wicklow's Anglican registers represent the *total* population of that county differ fundamentally. It was the relative religious homogeneity of the English population which facilitated Wrigley and Schofield's attempt to determine national population trends from a denominationally specific (Anglican) dataset. In the Wicklow context, however, despite the relative strength of the Protestant position, the denominational proportions are so inverted in comparison with the situation in England that a similar operation could not be justified, and the Anglican registers can only be used to track population change within that denomination's communities.

The issue of the birth-baptism interval could have a greater impact. If delayed baptisms were a common feature in Wicklow, this would seriously compromise the determining of crude birth rates at any point in time. The death-burial interval is unimportant, as biological fundamentals ensured that this could not exceed three or four days. The study of birth-baptism intervals has become a popular feature of English parish registers studies since Midi Berry and Roger Schofield's initial publication on the subject in 1971.⁹⁵ For the demographer, a short birth-baptism interval presents few complications, whereas a long birth-baptism interval, especially during times of elevated infant mortality, increases the possibilities of death before burial and consequent non-recording.⁹⁶ Unfortunately, however, neither the Catholic nor the Church of Ireland baptismal registers regularly record the dates of both the birth and baptism before the nineteenth century.⁹⁷

Berry and Schofield's tentative researches suggested a lengthening in the birth-baptism interval as the eighteenth century progressed, and subsequent research has tended to confirm these initial speculations.⁹⁸ Wrigley and Schofield further suggest that in the case of England the birth-baptism interval was negligible in the sixteenth century but progressively increased until by the late eighteenth century the mean gap was about one month, with wide variations between parishes. In the first three decades of the nineteenth century this gap appears to have increased further.⁹⁹

The issue of delayed baptism has received less attention in the Irish context. Raymond Gillespie has observed very short birth-baptism intervals for the parishes of Templemore (Derry city) in the 1650s and St John's (Dublin city) in the 1690s, from the entries that contain both birth and baptism data, and Clodagh Tait also notes a very short interval in St Catherine's parish between May 1686 and February 1692, with 70 per cent of children baptised within four days, and comparable median intervals in Christ Church, Cork in the 1650s.¹⁰⁰ However, all of these examples are for city parishes, which offer little by way of comparable social structures to the rural parishes of greater Wicklow.¹⁰¹ Unfortunately, none of the surviving registers from specifically Wicklow parishes provide sufficient statistical information from which birth-baptism intervals can be calculated during

the seventeenth or eighteenth centuries (out of c. 26,000 baptismal entries, spanning a period of 150 years, fewer than 100 contain evidence of either birth date or age at baptism). The situation is not hopeless, though, because the unions of Carlow (County Carlow) and Monkstown (south Dublin) – which closely reflect the social and economic landscapes of rural Wicklow – do provide a sufficiency of data to enable the determination of this interval for given periods during the eighteenth century. Additionally, in the early years of the nineteenth century newly introduced Anglican pro-forma registers included space for the recording of birth dates, so the interval can be calculated for some specifically Wicklow parishes for this period. The various data are presented in tables 48 and 49 and figure 56.

Berry and Schofield have advised against using registers in which the number of entries not containing both birth and baptism data exceeds 10 percent of the total,¹⁰² but in the case of Wicklow it is necessary to relax this rule, since no parishes recorded both birth and baptism dates to that degree of thoroughness, over a prolonged period. While this must compromise the accuracy of any resulting calculations, the impact is likely negligible because the entries for which no calculations are possible occur in batches, which implies that the information was simply not being recorded for those periods. Had these deficient entries been irregularly dispersed through the register, this would more likely imply that the ministers were cherry-picking the entries that would not contain complete data on the basis of arbitrary rules (such as particularly long intervals), which would bias any statistics. Clearly, the eighteenth-century data, from Carlow (1747-54) and Monkstown (1707-49), shows that baptism typically followed quickly after birth, although for both unions the proportion of entries with insufficient data to calculate the interval is roughly double the advised limit (of 10 per cent). In both cases roughly 50 per cent of all children (including the children for which no data are available) were definitely baptised within one week, and at least three quarters of all baptisms took place within three weeks. This represents a ‘worst-case’ scenario, and the true proportions were likely to have been significantly higher – if, as appears likely, the entries for which insufficient data is available are

unbiased, then the equivalent statistics rise to about 60 per cent (within one week) and over 90 per cent (within three weeks) respectively.

The data for various parishes during the early nineteenth century show mean intervals which are longer than those recorded for Carlow and Monkstown, but, still, the majority of baptisms occurred within the first month of birth.¹⁰³ It is not argued that the trends suggested in tables 48 and 49 can be viewed as an Irish manifestation of the lengthening birth-baptism interval that was occurring in England during the eighteenth century, and neither is it definite that the Carlow and Monkstown data, which show a short birth-baptism interval, are indicative of the situation throughout Wicklow at that time.¹⁰⁴ There is, however, no evidence contradicting either possibility, and since brief birth-baptism intervals were characteristic in all six parishes, it seems likely that, in the absence of external factors operating to prolong the birth-baptism interval (such as the absence, unavailability or disinterest of the minister), this was likely to have been the general rule prior to the nineteenth century.

Table 48 – Interval in days by which the stated percentile of births was baptised.

Period	Parish	25%	50%	75%	IE (% of total)
1707-1749	Monkstown	2 / 2	6 / 4	14 / 8	18.4
1747-1754	Carlow	3 / 2	7 / 5	22 / 10	17.6
1814-35	Newcastle	6 / 6	13 / 12	35 / 27	8.2
1819-26	Delgany	5 / 5	11 / 10	25 / 22	5.0
1827-29	Rathdrum	8 / 5	18 / 10	NA / 16	35.8

Note: the first figures are the number of days for which the stated percentiles were baptised for all births and the second set of figures denotes the number of days for which the percentiles were baptised for the complete entries only (i.e. excluding the entries without both birth and baptism entries from the calculation). IE denotes these incomplete entries.

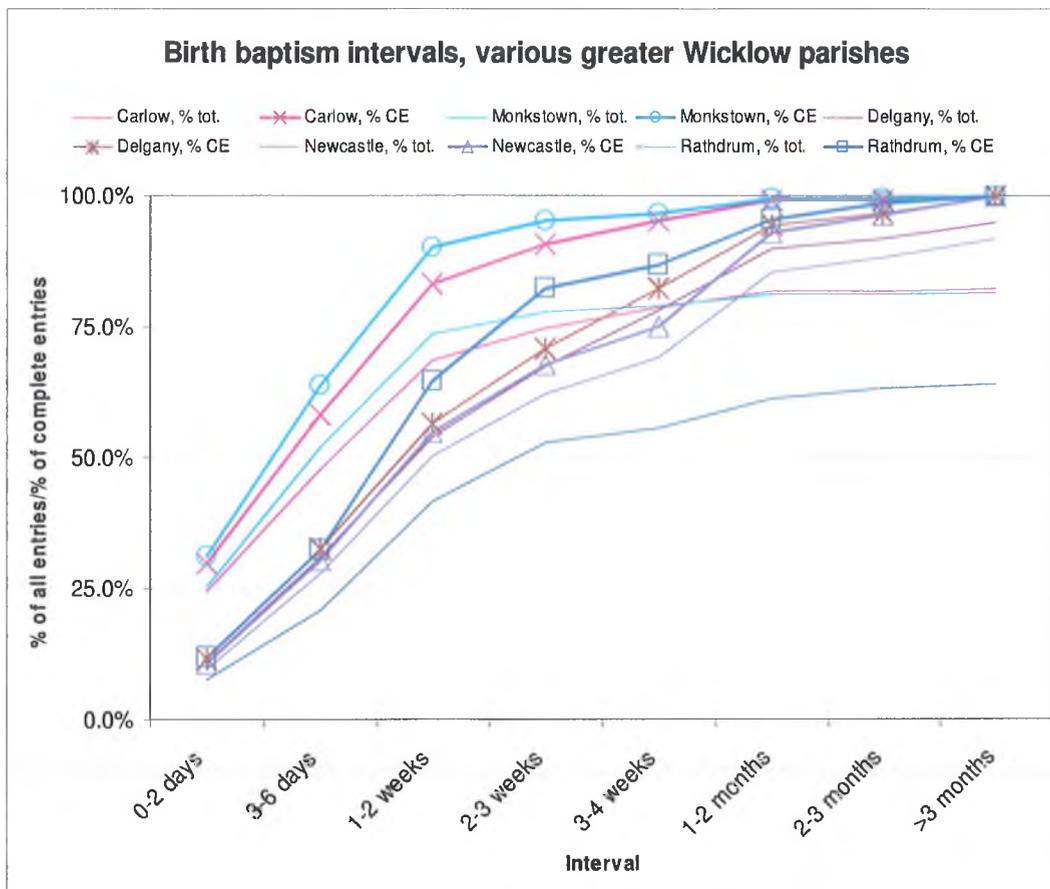


Figure 56 – Baptism-birth intervals, various parishes.
 Note that the two sets of eighteenth-century figures appear to have had the smallest mean age at baptism.

Table 49 – Birth-baptism interval for various parishes in greater Wicklow, eighteenth and nineteenth centuries (IE denotes incomplete entries, from which either the birth or baptism date is missing).

Parish (dates)	No of entries	IE	% of total incomplete	Days		Weeks			Weeks		
				0-2	3-6	1-2	2-3	3-4	4-8	8-12	> 12
Monkstown (May 1707 – Oct. 1749)	288	53	18.4	73	77	62	12	3	7	0	1
Agg. % of total entries				25.3	52.1	73.6	77.8	78.8	81.3	81.3	81.6
Agg. % of complete entries				31.1	63.8	90.2	95.3	96.6	99.6	99.6	100.0
Carlow (Jun. 1747 – Jun. 1754)	261	46	17.6	63	59	56	16	10	10	1	0
Agg. % of total entries				24.1	46.7	68.2	74.3	78.2	82.0	82.4	82.4
Agg. % of complete entries				29.3	56.7	82.8	90.2	94.9	99.5	100.0	100.0
Newcastle (Dec. 1814 – Nov. 1835)	403	33	8.2	39	73	91	47	28	66	12	14
Agg. % of total entries				9.7	27.8	50.4	62.0	69.0	85.4	88.3	91.8
Agg. % of complete entries				10.5	30.3	54.9	67.6	75.1	93.0	96.2	100.0
Delgany (Dec. 1819 – Oct. 1826)	303	15	5.0	33	61	69	41	33	35	6	10
Agg. % of total entries				10.9	31.0	53.8	67.3	78.2	89.8	91.7	95.0
Agg. % of complete entries				11.5	32.6	56.6	70.8	82.3	94.4	96.5	100.0
Rathdrum (Jan. 1827 – Feb. 1829)	106	38	35.8	8	14	22	12	3	6	2	1
Agg. % of total entries				7.5	20.8	41.5	52.8	55.7	61.3	63.2	64.2
Agg. % of complete entries				11.8	32.4	64.7	82.4	86.8	95.6	98.5	100.0

Source: R.C.B. Lib., MS P. 317.1.2; 917.1.3; 914.1.4; 377.1.2; Guinness, *Parish registers of Monkstown*).

The mid-1760s: determining the actual mortality and fertility rates

THE PROTESTANT RATE

So if issues such as non-conformity and birth-baptism intervals were likely factors influencing the relative numbers of baptisms compared to all births and burials compared to all deaths then a scaling factor may be required to convert baptism totals to birth counts and burial totals to death counts. As was seen in chapter two, the only pre-Union enumeration which reported both population and denominational-breakdown estimates at a sub-barony level was the 1766 religious census, and because of this, these returns assume an enhanced importance for examining micro-population levels in Wicklow in the pre-census period. The returns have two uses in this regard. In the first instance, they can be used to illustrate the proportionate strength of the two confessional groups at this period, in the parishes for which returns are available. More importantly, however, they also facilitate comment on the quality of the recording in the various parish registers. Earlier it was noted that in a stable population, for every 1,000 persons the aggregate annual number of births and deaths should lie within suggested broad ranges (table 44). Thus, for every parish for which both 1766 estimates and accepted baptismal and burial recordings are available, the number of baptisms and burials per 1,000 persons can be determined for a range of years around 1766. If the numbers of baptisms or burials lie significantly outside the respective boundaries then this can be considered as evidence of poor registration within that parish. The surviving 1766 parish figures are summarised in appendix 30, and shown in figure 57.

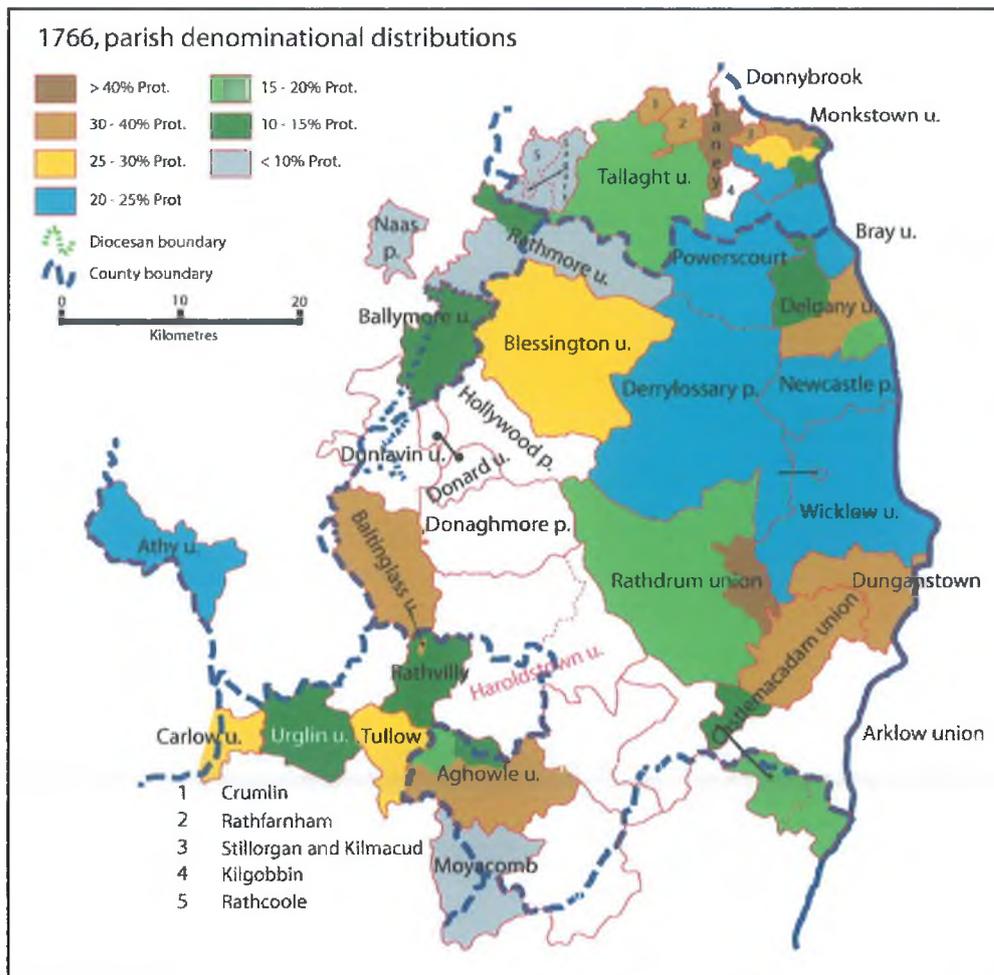


Figure 57 – Protestant proportion of total population in 1766 in region of Wicklow (source: Gurrin, 'Three eighteenth-century surveys of Wicklow' in *Anal. Hib.*, xxxix, pp 99-119).

The determination of *actual* fertility and mortality rates in the region during this period is, of course, distinct from the earlier examination of fertility and mortality rates, which was focussed on determining probable *trends* in those rates. Changing trends in fertility or mortality rates are somewhat abstract, however, and can only highlight likely trends in natural population levels, rather than permit a determination of the actual rate of natural population change. The trend in the fertility-rate may be downwards, for instance, but the actual rate may yet remain positive and the population may still be rising, but at a slower pace. Actual fertility or mortality rates, on the other hand, are fundamental determinants in the population model (figure 24), and it was only a paucity of the requisite

source material for determining the actual rates that necessitated the determining of trends in the various rates.

To determine an actual fertility or mortality rate, one must have available two specific sets of statistics – estimates for the numbers of births per year and the number of deaths per year and reliable population estimates. As was seen in chapter two, however, population estimates for the eighteenth century are rare and denominational breakdown estimates are rarer still. Most of the population estimates that were considered in that chapter were barony aggregates or barony estimates, rather than parish-specific enumerations, but in order to determine actual fertility and mortality rates, parish enumerations are necessary because the vital-event data (baptisms and burials) are recorded at the parish level. In fact, the surviving 1766 parish census returns represents the only data that can be used to successfully determine fertility and mortality rates for County Wicklow, as these data typically cover an area contiguous with the area covered by the parish registers.¹⁰⁵

An additional benefit accrues from determining fertility and mortality rates from parish registrations in the years surrounding the 1766 period. Since, in a settled population, for every 1,000 persons the aggregate annual number of births and deaths should typically lie within known ranges (22 – 55, or more likely 28 – 40 for births, and 20 – 35 for burials during ‘normal’ years – see table 44), then, for every parish for which 1766 estimates have survived, the baptismal and burial aggregates can be considered in the light of anticipated levels. Since the Church of Ireland parish registers appear to be exclusively recording Protestant baptisms and burials, the ‘population’ that should be used is the Protestant population estimate, rather than the total population estimate (this issue is discussed in appendix 21). For the Catholic union of Wicklow, the only parish with significant pre-1800 recording, the Catholic population estimate for 1766 for that parish can also be used to determine the likely accuracy of Catholic recording

The process employed operates as follows. Most of the 1766 census material that is available reports household-head enumerations rather than population estimates, although some few parishes also reported the total population. For those parishes which only reported household-head estimates,

population estimates can be generated by applying the multiplier for mean household size for 1766 which was derived in chapter two (5.2 for Protestant families and 4.9 for Catholic families). Using these population estimates the total number of baptisms and burials per 1,000 people are calculated for each parish for each year during a 30-year period centred on 1766 (between 1751 and 1781). The number of baptisms per 1,000 is termed the crude baptismal rate and the number of burials per 1,000 is the crude burial rate, and if baptisms and burials approximate to births and burials then these rates suggest the likely size of the crude birth rate (CBR) and the crude death rate (CDR) for the relevant denomination in each parish. Obviously population levels would have fluctuated during this three-decade period, but it is unlikely that very substantial population change occurred during the two periods centred on 1766.¹⁰⁶

There is a complicating factor, however. Earlier it was hypothesised that the Protestant population may have been falling in the 1740s and 1750s, and if this was the case, then the trend in the annual aggregates of baptisms and burials should be downwards in the years before 1766. This will consequently impact on any determination of baptism or burial rate, which are based on a population estimate for 1766 – comparing pre-1766 baptism and burial aggregates with the 1766 population estimates, should artificially exaggerate the number of baptisms and burials per 1,000 people, as the pre-1766 aggregates would have been spawned by a higher population. To use an extreme example, if the population of a region in 1751 was 2,000 and by 1766 the population had fallen to 1,000 then forty baptisms in 1751 would represent the same number of baptisms per 1,000 persons as would twenty baptisms in 1766. But, since the 1751 estimates can only be compared with the population estimate from 1766, then, in this case, the calculated fertility rate for 1751 (forty per 1,000) would appear exaggerated when compared with the 1766 rate (twenty per 1,000), even though the two rates are actually the same. In reality, however, any decline in Protestant numbers was more muted than in the example shown, and, thus, any exaggeration in the pre-1766 mortality and fertility rates would only be marginal, but a gradually declining fertility and mortality rate need not be unexpected.

Some further techniques were also considered appropriate. Since the number of baptisms and burials can fluctuate quite significantly from year to year, it was decided to use a mean figure for the number of baptisms and burials, rather than the actual figure. The mean that has been used is the mean number of baptisms and burials for a quinquennial period centred on the year in question (termed the *current-quinquennial mean*, or CQM).¹⁰⁷ It should be remembered that the purpose of this operation is to derive general baptism-rate and burial-rate estimates, and also to verify the probable accuracy of the annual aggregate baptism and burial figures. By using CQM means rather than the actual total of baptisms and burials then the likelihood of large fluctuations in the calculated rates (particularly in the mortality rate) is lessened, and so too is the impact of the relatively wide period (15-years either side of 1766) for which data is being compared with a single year's population estimates. However, in order to determine a CQM one must have acceptable baptism and burial figures not just for the year in question, but also for two years on either side. For Blessington parish, there were no incidents of five consecutive years with good recording and so, for that parish only, the actual number of baptisms and burials per year rather than the CQM figures was compared with the 1766 population estimates, and similarly for Carlow's burials the actual number rather than the CQM figures were used. As no 1766 material is available for Donaghmore and Dunlavin, the process could not be performed for these two parishes.

In appendix 31 the data derived from this process is presented and the number of (CQM) baptisms and burials per 1,000 Protestants in 1766 is shown. Figures 58 and 59 present the derived data in graphical form. In this graph the thick horizontal lines represent the ranges within which fertility and mortality rates should theoretically lie (table 44). The statistics are truncated for some parishes on account of poor recording.

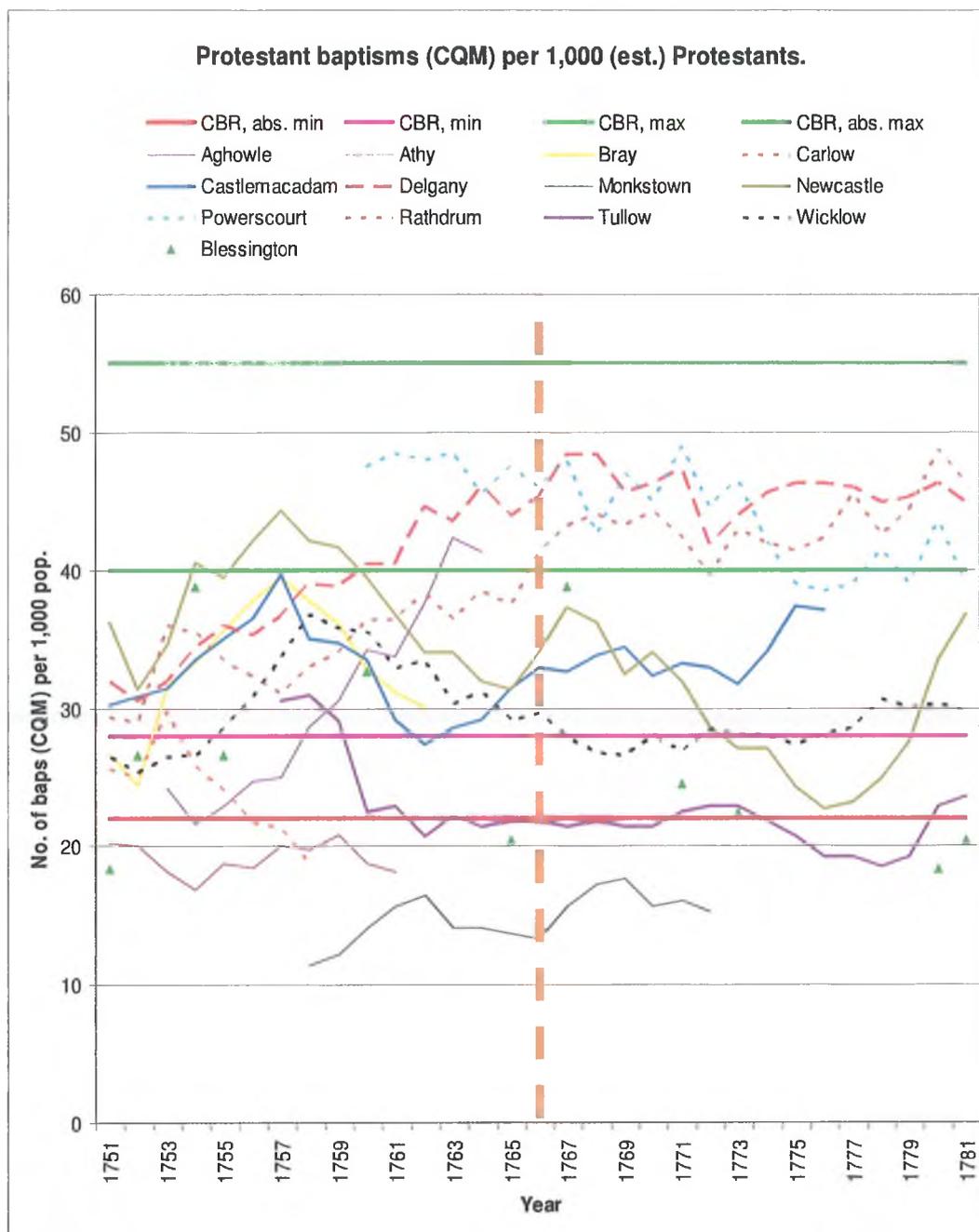


Figure 58 – Estimated fertility rate among Protestants in various Wicklow parishes in a three-decade period centred on 1766.

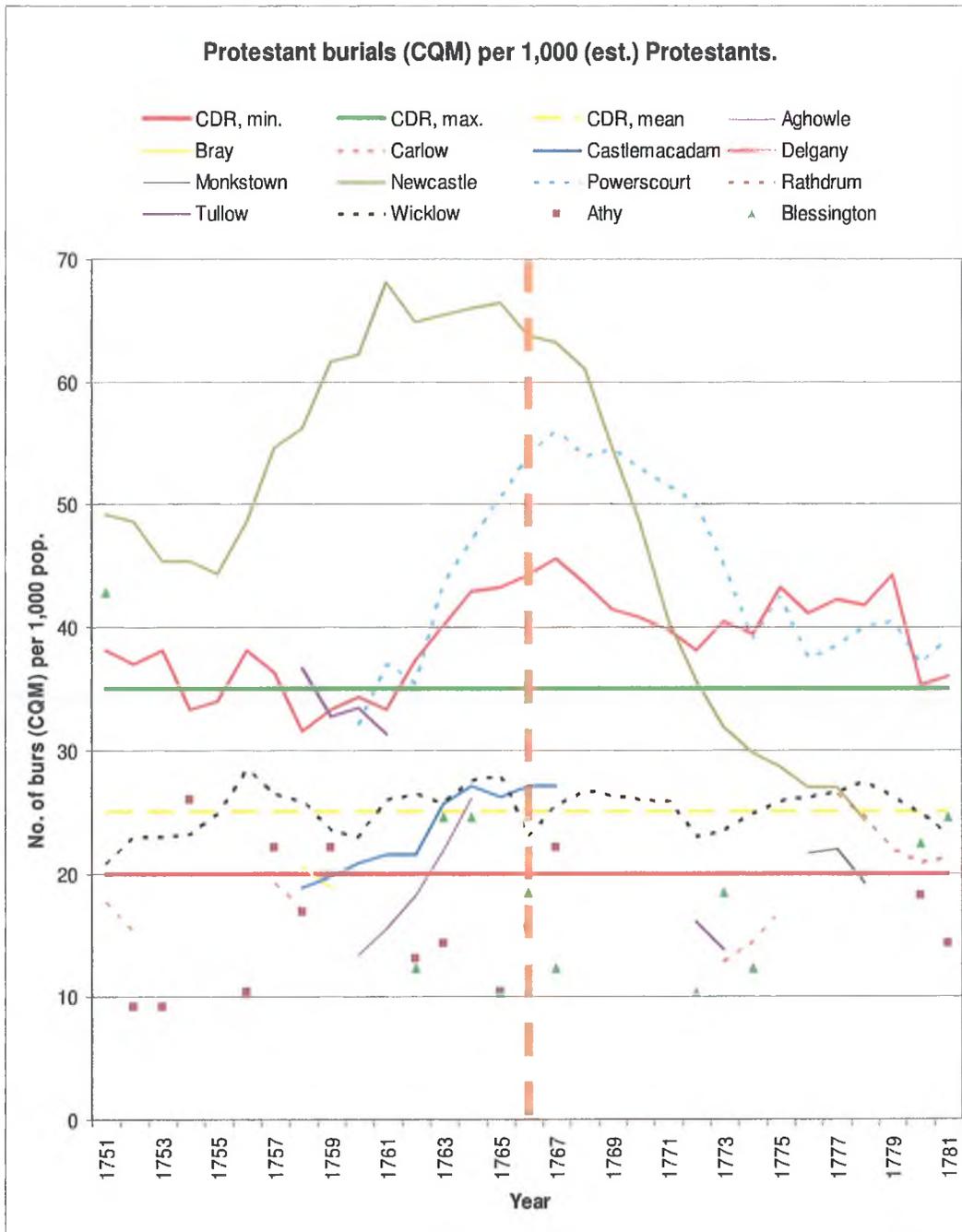


Figure 59 – Estimated mortality rate among Protestants in various Wicklow parishes in a three-decade period centred on 1766. The thick lines highlight typical minimum, maximum and mean crude death rate figures (source: Wrigley and Schofield, *Pop. hist of England*, p. 181).

It is clear from figure 58 that the number of baptisms being recorded per 1,000 Protestants fall within the expected crude birth rates for most parishes, with the exception of the Monkstown data which is quite deficient and is of limited

further use. For most other parishes the various annual baptismal rates (CQM baptisms per 1,000 Protestants) generally fall within the outer limits of acceptability (22 – 55 per annum), and many of the rates also lie within the narrower band (28-40). Only the data for Athy lies consistently outside the wide bounds, but data for that parish is only available for a handful of years during the beginning of the period, and neither do the statistics lie too outside the lower limits. Even Blessington parish, for which CQM calculations were not possible, the annual aggregates generally lie firmly within the wide bound limits. A summary of the data in figure 58 is presented in table 50, which shows that, with Monkstown's data excluded, more than 87 per cent of the calculated fertility rates lie within the acceptable wide-bound guide figures.

Table 50 – Summary of the degree to which calculated baptism rates in the 1766 period fall within accepted guide figures.

Parish	Inside ...		Below lower bound	Comments
	narrow bounds	wide bounds		
Aghowle	5	6	1	
Athy	0	0	11	
Blessington	3	4	2	Using annual aggregates
Bray	10	2	0	
Carlow	1	4	3	
Castlemacadam	25	1	0	
Delgany	9	22	0	
Donaghmore				No 1766 data available
Dunlavin				No 1766 data available
Monkstown	0	0	15	
Newcastle	19	12	0	
Powerscourt	5	17	0	
Rathdrum	16	15	0	
Tullow	3	8	14	
Wicklow	20	11	0	
Total	116	102	46	
	43.9%	38.6%	17.4%	
Excl. Monkstown	116	102	31	
	46.6%	41.0%	12.4%	
Excl. Athy	116	102	20	
	48.7%	42.9%	8.4%	
Excl Carlow	113	98	18	
	49.3%	42.8%	7.9%	

An equivalent comparison for the burial data, shown in figure 59, is, however, less clear-cut, and presents problems. For many of the parishes, the crude death rate falls neatly within the expected boundary limits. Notably, the

series for Wicklow and the truncated Castlemacadam series lie completely within the bounds, as do most of the Tullow and Aghowle data. The sporadic Carlow figures lie below the lower bound, but only marginally so. The statistics for Blessington and Athy are also only sporadic, and are plotted as points rather than a linear series, but lie consistently below the expected burial rate.

In the north east of the county, the data for Delgany, Powerscourt and Newcastle provide a contrasting difficulty, with the crude burial rates exceeding the upper bound limit of the crude burial rate (table 44), at times by a considerable degree. It could be argued that an upper bound of 35 deaths per 1,000 people is too low, and that a higher figure is more realistic, but Wrigley and Schofield reject this, describing 35 burials per 1,000 population as 'probably more extreme than anything to be found in pre-industrial England other than by way of short-term fluctuations'.¹⁰⁸ However, even if a figure of 50 per 1,000 was presumed, the mortality rate in both Newcastle and Powerscourt remains steadily above that elevated limit for a number of years during this period. In Newcastle the data rises to an all time high of almost 70 burials per 1,000 in the five years centred on 1761, and between 1759 and 1768 the rate exceeds 60 per 1,000. So, how could these anomalies be explained?

A LOCAL CRISIS?

It is notable that both Newcastle and Delgany were two of the few parishes for which the clergyman returned population estimates as well as the requisite household-counts, so their crude baptism and burial rates would be exaggerated if deficient population estimates had been returned. In appendix 30 population estimates for 1766 were made for parishes for which only household-head counts were available, but if the minister returned population-estimates, then those figures were accepted. The multiplier which has been consistently applied to convert Protestant houses into a Protestant population estimate (chapter two) is 5.2, but for both Delgany and Newcastle, the mean household size based on the census returns is considerably lower than this figure. For Delgany, the clergyman's return implies a mean Protestant household size of 4.7 and for Newcastle the statistic is even lower, at just 4.4. If, therefore, the 1766 population figures were ignored and population estimates based on the multiplier of 5.2 were

employed instead, then the burial rates would be reduced considerably (figure 60). In the case of Delgany, the rate would fall close to the maximum allowable level for most years, although the rate still exceeds 35 per 1,000 for the years 1763-71 inclusive and in 1766 and 1767 a burial rate of 40 per 1,000 emerges. While it seems possible, that poor population-estimation on the part of the minister provides much justification for the excessive burial rate in Delgany, the rate in Newcastle remains considerably above the maximum limit, and requires further probing.

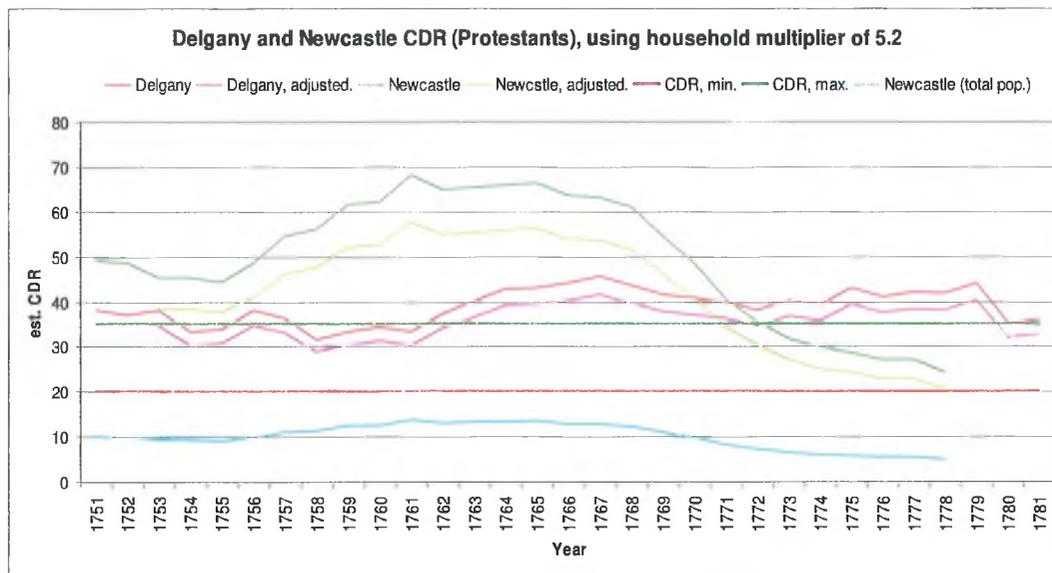


Figure 60 - Delgany and Newcastle CDR, readjusted, using a mean Protestant household size of 5.2.

Note: the 'Newcastle (total pop.)' line shows the number of burials in the registers per 1,000 people for the total population (i.e. the total number of Catholics and Protestants, as returned by in the census).

It should, of course, be remembered that the actual number of burials remains small, and, in both cases the Protestant populations under examination are considerably less than 1,000. It could be presumed, therefore, that, small increases in the number of burials could dramatically increase the apparent death rate, but this is not occurring here. Since CQM figures rather than annual aggregates constitute the source data for the mortality rate calculations, the data cannot be strongly influenced by annual fluctuations. If, for instance, annual aggregates were being employed, then an increase in burials in Newcastle of just 3 between

successive years would boost the crude death rate by nearly 10 per 1,000 people in that year. However, by using CQM figures rather than actual figures, the impact of such an increase is spread over five years and the increase the mortality rate is only boosted marginally as a result of any burial spike.

The enhanced number of burials might also reflect the presence of Catholics in the registers. Earlier, it was noted that there is conclusive evidence that Catholic burials were being recorded in the Newcastle registers during the 1720s and 1730s (appendix 21). Thus, if there was a tradition of Catholics being recorded in the registers some decades previously, this characteristic may have continued into the 1750s and 1760s, although the extent of the practice is unclear. It is certain that all Catholics were not appearing in the burial records since the plot of burials per 1,000 of the total population is consistently (and substantially) below the expected CDR lower limit, but some Catholics may have been recorded, which would operate to artificially boosting the *apparent* crude burial rate for Newcastle's Protestants.

In spite of these possible explanations, however, one problem still remains. It is noticeable that the three parishes which appear to exhibit exceptionally high crude death rates during this period – Powerscourt, Delgany and Newcastle (figure 59) – are all contiguous, and located in the north-east corner of the county. Each exhibited a surge in their apparent burial rates during either the late 1750s or early 1760s, and the increases in Powerscourt and Delgany were virtually contemporaneous. These were three distinct parishes, each served by individual, independent clergymen, so it would be improbable to suggest that each decided simultaneously to commence recording Catholic burials more rigorously, thereby leading to an increase in the apparent Protestant burial rate. The coincidence between the timing of the increases and the commencement of subsistence crises in the early 1760s is also noteworthy too, and it seems a more likely explanation that this extensive area of north-east Wicklow was coming under not insignificant demographic stresses in the late 1750s and 1760s. Furthermore, as the mortality experiences in the union of Wicklow, coterminous to Newcastle to the south, were fundamentally different during the same period, it seems probable that the elevated crude death rates were highly localised, and not general.

THE CATHOLIC RATE

The Wicklow Catholic registers can be similarly examined. The 1766 census reported the number of Catholic householders in that parish at 844, which, applying the Catholic multiplier of 4.9, suggests a population of the order of 4,100 (appendix 30). Based on this population level, the crude baptism rate among Catholics for the period 1751-79 is shown in figure 61 (the numeric data is presented in appendix 32). As was earlier observed for the Protestant baptismal statistics (figure 58), the number of baptisms recorded each year in the Wicklow Catholic registers also appear to lie predominantly within the range that could be anticipated from this population (table 44), particularly between 1751 and 1775. Occasionally during this period, the number of baptisms fell below the lower outer limit, especially in 1762 and 1763 when, as was seen earlier, the population may have been depressed in the aftermath of the subsistence difficulties of the late-1750s. During the late-1760s the number of baptisms also dips below the lower expected limit for the CBR, which is a manifestation of falling fertility in the aftermath of the shortages of the mid 1760s.

Since there are no Catholic burial registers available, the impact of these reduced fertility levels can only be speculated upon. Earlier, it was noted that although a population's mortality rate could fluctuate more wildly than the fertility rate, it can not be expected to fall below twenty per 1,000, and could be almost double this figure (table 44). In that case, the 17.3 and 20.2 baptisms per 1,000 Catholics recorded in 1762 and 1763 represent, if baptisms are equated with births, a definite demographic decline for within the Catholic community. In the absence of Catholic burial records, but since typical mortality rates ranged between twenty and thirty-five per 1,000 people (a mean of twenty-five) (table 44), these, can be presumed to provide guidance as to the true rates that were being experienced at that time. In normal years the mean CDR rate (25 per 1,000) can be considered as a rough guideline figure, but during periods of known subsistence difficulties mortality rate would have far exceeded this mean, and would probably have been closer to (and perhaps even exceeded) the thirty-five per 1,000 upper limit. This possible Catholic mortality rate trend has been plotted

(shown as a thick dashed blue line) on figure 61. Whilst these can be viewed as nothing more than guideline figures, the point is, nonetheless, evident.

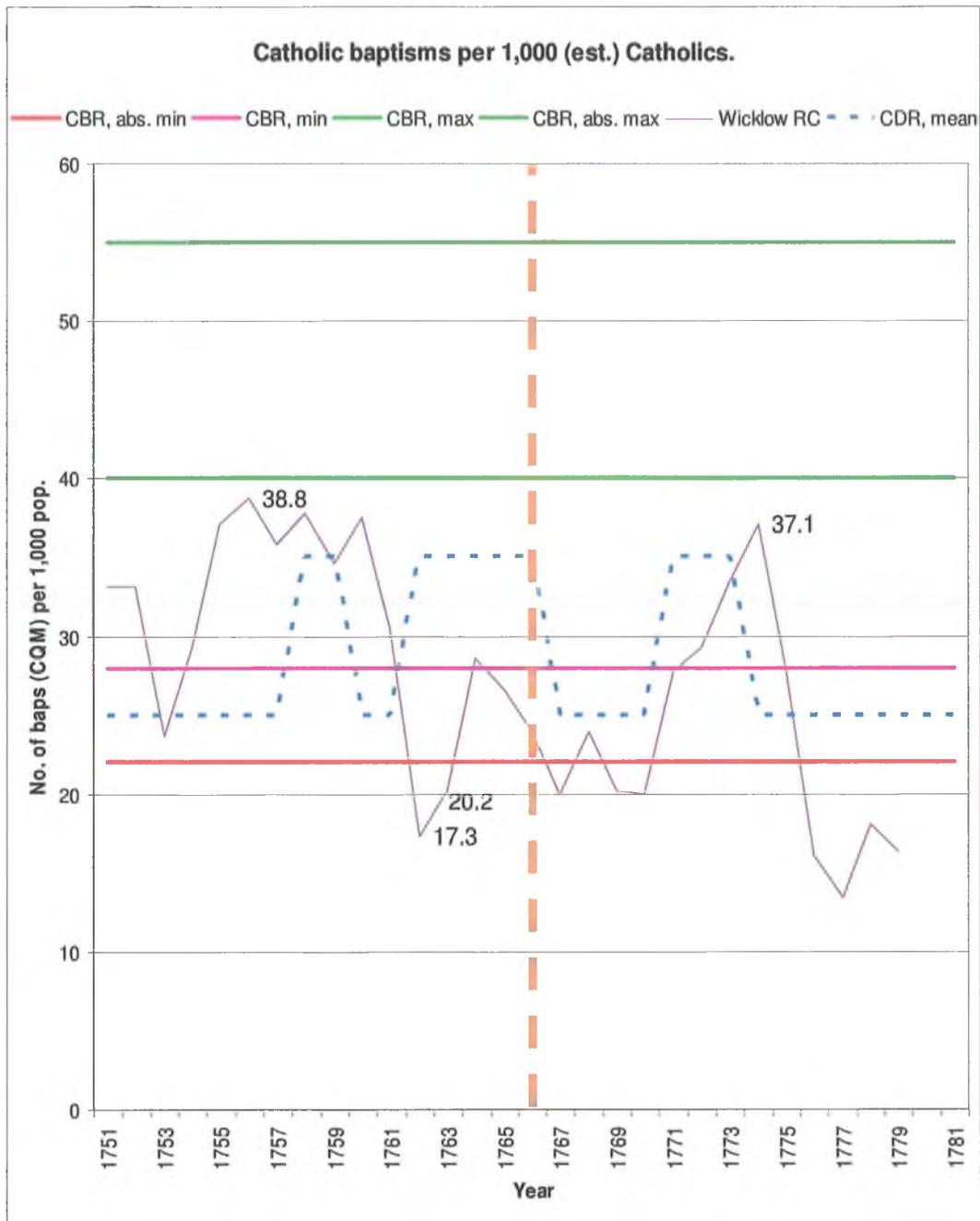


Figure 61 – Estimated fertility rate among Catholics in Wicklow parish in a three-decade period centred on 1766.

By comparing speculative, but not unlikely, mean mortality rates in conjunction with accepted fertility rates, the 1760s thus emerges clearly as a period of demographic decline within the Catholic community of Wicklow. For seven of the nine years between 1762 and 1770 the number of recorded baptisms per 1,000 persons failed to reach the 25 per 1,000 mean level, and for the dozen years between 1762 and 1773 it is highly probable that the Catholic population was in decline. In fact, if figure 61 represents the birth and death rates reasonably accurately, this equates to a population decline of approximately 400 people, or about 10 per cent of the entire Catholic population. Furthermore, bearing in mind that the death rate among Catholics – whom, it was seen earlier, were suffering a more challenging demographic experience than their neighbouring Protestant community – was probably elevated above the 35 per 1,000 person limit during many of these years, the crisis in the Catholic community may even have been greater than may at first appear. By the early 1770s the crisis had abated, and the crude baptism rate recovered towards the rates that had been exhibited during the late 1750s.¹⁰⁹

Unfortunately, aside from the 1766 period, there are no other appropriate snapshot figures available for the period between 1660 and 1800 which present religious breakdown estimates to parish level, thus hindering further verification of the degree of completeness of the registrations, and preventing additional fertility rate and mortality rate calculations from being performed.

Residual escape – from baptisms and burials to births and deaths

The previous section was focussed on determining crude baptism rates and crude burial rates, and showing that these fall generally in line with the figures that might be anticipated, at least during the 1750s-1770s. However population change is not driven by baptisms and burials, but by births and deaths, and since parish registers aimed only to record the former, then the degree of omission from parish registers requires examination to support a translation from crude baptismal and burial rates to crude birth and death rates. Before proceeding, it should be noted, however, that in the absence of convincing evidence, this process must remain speculative.

The English experience provides some guidance. In their study of English population history between 1541 and 1871 Wrigley and Schofield note that 'the problem [of under-recording] was at its most acute in the late eighteenth and early nineteenth centuries'.¹¹⁰ Furthermore, they noted that this problem lessened the further back in time one goes, until for Tudor and Stuart times it was insignificant.¹¹¹ Although the structure and state of the churches in England and Ireland differed, this tendency for England for baptisms and burials to become increasingly more representative of vital-events as one moves back through time is comforting. For the early nineteenth century, they employ data from the earliest English censuses to argue that under-recording of both baptisms and burials was most pronounced in the decade 1811-21, and suggest readjustment rates for that decade's baptismal and burial totals of 28.7 and 31.08 per cent respectively.¹¹² Clearly, if these rates were representative of the Irish situation during the eighteenth century then baptism and burial records would be of very limited use in population reconstruction.

Fortunately, however, this is unlikely to have been the case, and as Wrigley and Schofield show, the rates for 1811-21 are exceptional, and for the period under examination in this project, aside from the final decade of the eighteenth century, under-registration was considerably less of a problem. The suggested under-registration rates used by Wrigley and Schofield are shown in figure 62.¹¹³ A number of features bear comment. Before the 1780s the suggested baptism-birth readjustment rate was consistently considerably below 10 per cent and before the 1790s the burial-death readjustment rate was always below 5 per cent. After the 1780s the baptism and burial totals become progressively less representative of birth and death totals, and at the outset of the nineteenth century they had both become considerably deficient. Notably, too, for all periods except 1811-21 the readjusted baptism aggregates were less representative of the total number of births than were the burial totals representative of the total number of deaths.

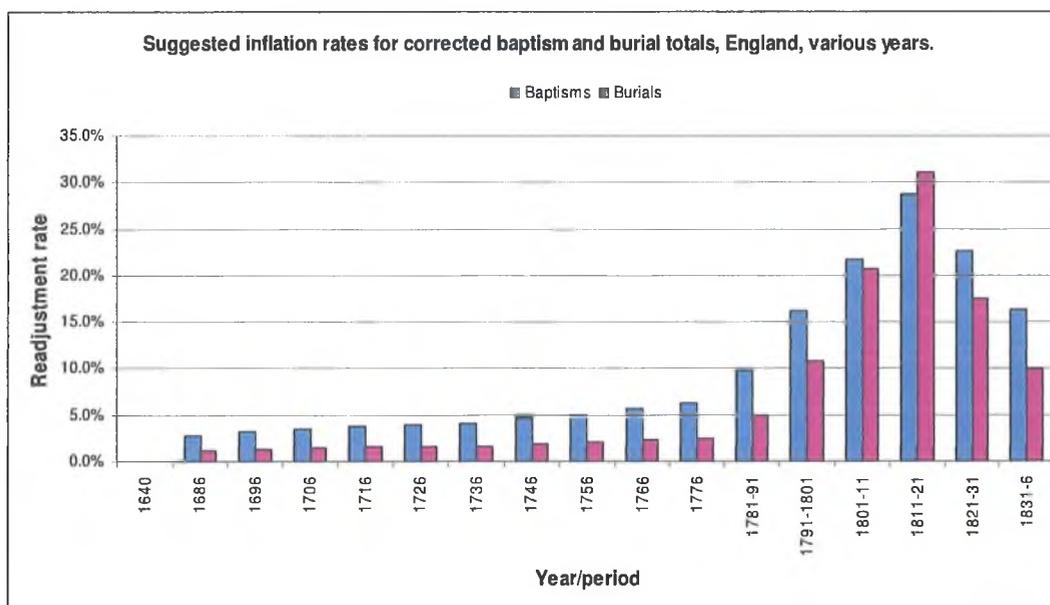


Figure 62 – Suggested inflation rates for converting corrected baptism and burial counts to birth and death counts (source: Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 138-9).

Although Wrigley and Schofield’s readjustment rates are a useful starting point for considering the specifics of the Irish equivalent, the situation in Ireland was different. First, Wrigley and Schofield are attempting to determine national birth and death figures from specifically Anglican registration. Thus, the rise of nonconformity and the increasing secularisation of society in the closing decades of the eighteenth century (which operated to increase the birth-baptism interval)¹¹⁴ accounted for much of the widening divergence between baptisms and births and burials and deaths. At all stages, however, the English population was sufficiently confessionally-homogeneous to permit Wrigley and Schofield to attempt to reconstruct total population levels from uni-confessional (Anglican) data. For Wicklow, however, it is impractical to even attempt to derive estimates for the total population, from the Anglican data alone. First, the socio-economic profile (effective real income in the population model shown in figure 24) of the Wicklow Protestant population differed from the equivalent Catholic profile – which was an influencing factor in population change, and in the susceptibility of the population to the positive check on population growth. Secondly, whilst it is possible to estimate the population level of a small minority community from statistical

aggregates pertaining to the majority community (the English case) it is not possible to perform this operation in reverse (the Irish case).¹¹⁵ Although the difficulties in Wicklow would be less exaggerated than throughout much of the rest of the country – because of the strength of Protestantism in the region – nonetheless, with a Protestant population rarely exceeding 25 per cent of the total population in any region (figure 57), the Anglican dataset remains insufficient. It is true that general population-level influences, particularly the operation of the positive check on population levels, may have been broadly correlated across confessional groups, but even in these instances, as was seen for the 1760s period (figure 55), the scale of a positive check may have varied.

Since the Wicklow parish registers appear broadly to have been denominationally exclusive (appendix 21), then it is only realistically possible to consider how the annual aggregates of baptisms and burials relate to the probable annual totals of births and deaths for the relevant confessional group.¹¹⁶ There are three primary factors which will influence the degree of completeness in any register. These factors are the attitude of the clergyman, the attitude of the parishioners and the condition and survival of the registers.

These factors are briefly considered in appendix 33 for Wicklow's Church of Ireland and for Wicklow parish's Catholic records, where it is argued that most supporting evidence suggests that the registration data which have survived the previous data-cleansing operations (step 2, stages 2, 3 and 4) are probably reasonably accurate. Table 51, therefore, summarises the probable state of registration in the greater Wicklow registers for the 1766 period. It is curious that the baptismal data appears to be typically more complete than the burial data, which contrasts with the English situation where Wrigley and Schofield's adjustment rate for burials was consistently lower than the rate for baptisms, although the reason for this discrepancy is unclear.

Table 51 – The probable completeness of the registration process in the parish registers of greater Wicklow in the 1766 period.

Register	Baptisms	Burials	Comment
Aghowle	Accurate	Accurate/deficient	
Athy	Accurate/deficient	Deficient	Burial registration is are clearly deficient (figure 59)
Blessington	Accurate	Deficient	Burial registration is are clearly deficient (figure 59)
Bray	Accurate	Deficient	Burial registration is are clearly deficient (figure 59)
Carlow	Accurate	Deficient	Burial registration is are clearly deficient (figure 59)
Castlemacadam	Accurate	Accurate	
Delgany	Accurate	Accurate	
Donaghmore	Probably accurate	Probably accurate	No 1766 data available, figures are reasonable and consistent.
Dunlavin	Probably accurate	Probably accurate	No 1766 data available, figures are reasonable and consistent.
Monkstown	Very deficient	Very deficient	
Newcastle	Accurate	Accurate	
Powerscourt	Accurate	Accurate	
Rathdrum	Accurate	Accurate	
Tullow	Accurate	Accurate	
Wicklow (Prot.)	Accurate	Accurate	
Wicklow (Cath.)	Accurate	N/A.	

Population trends

Having thus far analysed the various registers at some length it is now possible to move to the final, and crucial, step in this chapter – a consideration of the likely population trends in Wicklow’s parishes and regions in the period 1660-1800, and a verification of some of the trends which were identified in chapter two. Since the population model (figure 24) shows that two of the three principal immediate influences on population levels are births and deaths, then the difference between births and deaths (or in this case, baptisms and burials, since they have been shown to be largely compatible) can be used to judge the essential features of natural (non-migratory) population change. As the period 1751 to 1781 coincides with the availability of 1766 census material, the data will for these decades will be considered first.

Population trends, 1700-81

Although table 51 notes that both the baptism and burial data for ten parishes are probably reasonably accurate, for some of these data are only available for a few years, and since it is undesirable to work with sporadic data, an arbitrary cut-off of twenty data entries has been adopted – if valid, baptism and burial figures are not available for twenty years during this thirty-year period, then that parish's data will be excluded from subsequent calculations. Once these problematic parishes are excluded, just six parishes remain with twenty or more years of likely reliable baptism and burial recording between 1751 and 1781, and all but one of these are located in the east of the county. The six parishes are Castlemacadam, Delgany, Newcastle, Powerscourt and Wicklow, and Dunlavin in the west (figure 57).

The population-trend figures emerging for these parishes are broadly similar (figures 63, and 64 show the annual baptismal and burial aggregates for the six parishes), and correspond well with the general subsistence patterns that were earlier identified for this period. The two known periods of general distress and high food prices (late 1750s, mid 1760s) appear as periods of natural population decline in the region. During the 1750s baptisms typically exceeded burials in most parishes, and only in Delgany in 1751, in Wicklow in 1754 and in Newcastle in 1759 did burials exceed baptisms by ten or more during any calendar year. The positive population movements of the mid and late 1750s began to weaken under the influence of the harvest difficulties of the early 1760s and by 1763 burials exceeded baptisms in all six parishes. Sixty-eight burials were recorded in Wicklow parish that year, more than 120 per cent more than the mean annual number recorded in the preceding and succeeding five-year periods, and in Newcastle in the same year burials exceeded baptisms by twenty. For Wicklow, the parish registers record thirty-five more baptisms than burials in 1760, but by 1763 the situation had reversed, with thirty-two more burials than baptisms occurring.

Similar trends were also evidenced in parishes whose data were considered too sporadic to be included. In Tullow parish burials exceeded baptisms in 1758 (by twenty), 1762 (by eleven) and 1763 (by thirteen). In Aghowle burials peaked

in 1765 and 1766, although the data is very patchy, and in Donaghmore, more burials (eleven) were recorded during 1766 than during any other year during the eighteenth century. During the 1760s the natural population growth for many parishes would appear to have been close to zero, or even negative, which contrasts sharply with the position in the latter half of the 1750s. In 1776 burials marginally exceeded baptisms in Wicklow and the following year in a similar situation occurred in Delgany, Newcastle and Powerscourt, although neither of these years appear on the subsistence crises radar.

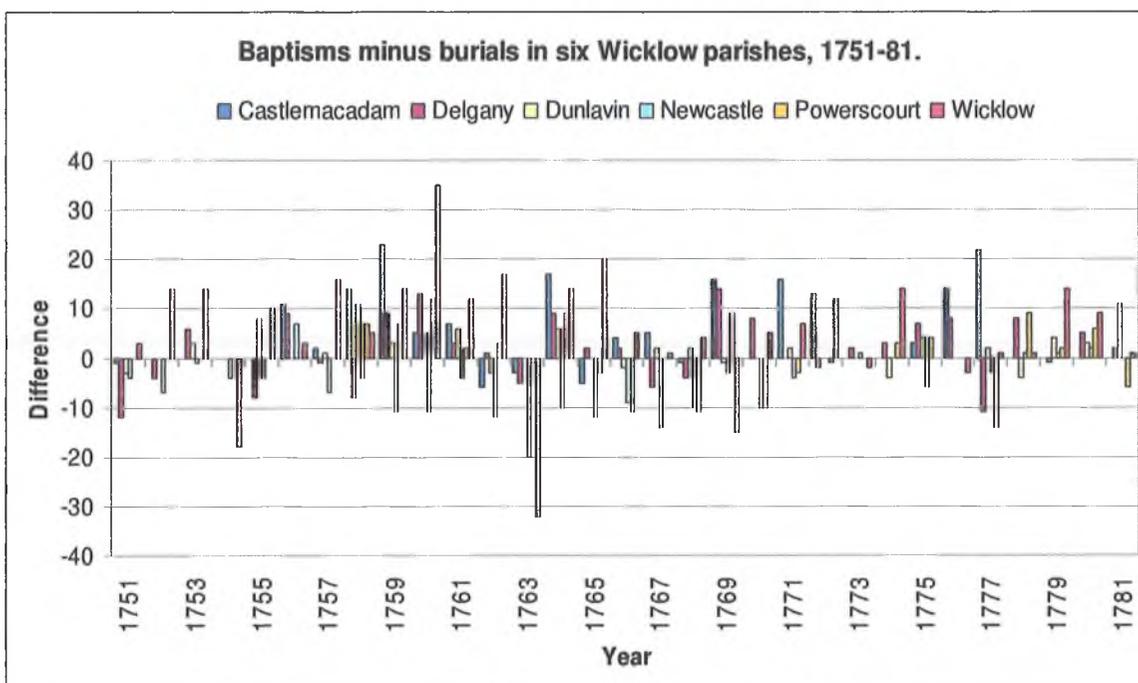


Figure 63 – Difference between baptisms and burials in six Wicklow parishes, 1751-81.

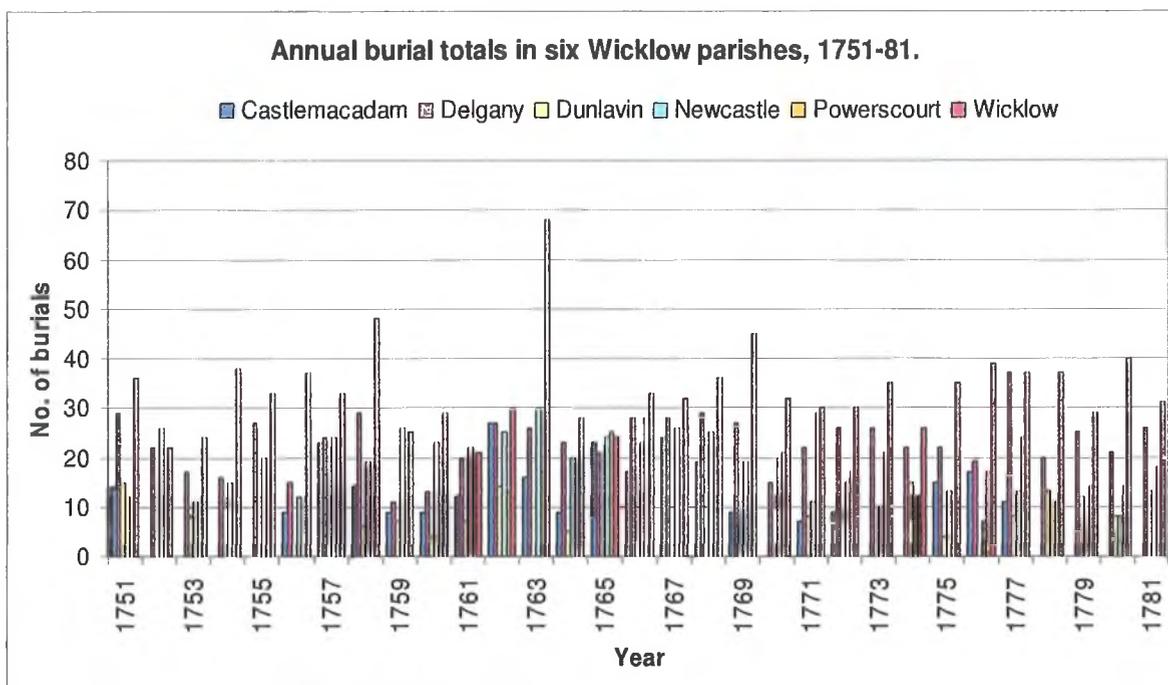


Figure 64 – Burials in six Wicklow parishes, 1751-81. Wicklow's burial peak in 1763 is evident.

Clearly, therefore, a positive correlation between the occurrence of subsistence crises during the 1760s and fertility and mortality rates is evident.¹¹⁷ The elevated food prices during 1759 and 1765 were followed by increases in burials, reductions in baptisms and natural population decline – the typical demographic responses of communities in nutritional distress. Nonetheless, despite this evidence of positive correlations, the statistics, as presented, do not fully explain the dramatic decline in the Protestant population which was observed for the county between 1732 and 1766. It must be stressed that that data are patchy (the lack of statistical data for Rathdrum at this period is particularly regrettable), but while periods of difficulty and natural population decline are clearly evident, the trends emerging from (figures 63 and 64) lends themselves to the conclusion of population-stability or possibly even modest population increase. This is further intimated by figure 65, which shows the difference between the total number of all baptisms and all burials for a number of parishes (for which their data has been adjudged likely to be reasonably accurate).¹¹⁸ In all of the parishes, with the exception of Newcastle (in which, as has been seen, particular circumstances were

operating) and Tullow, baptisms exceed burials, in some cases by substantial numbers.

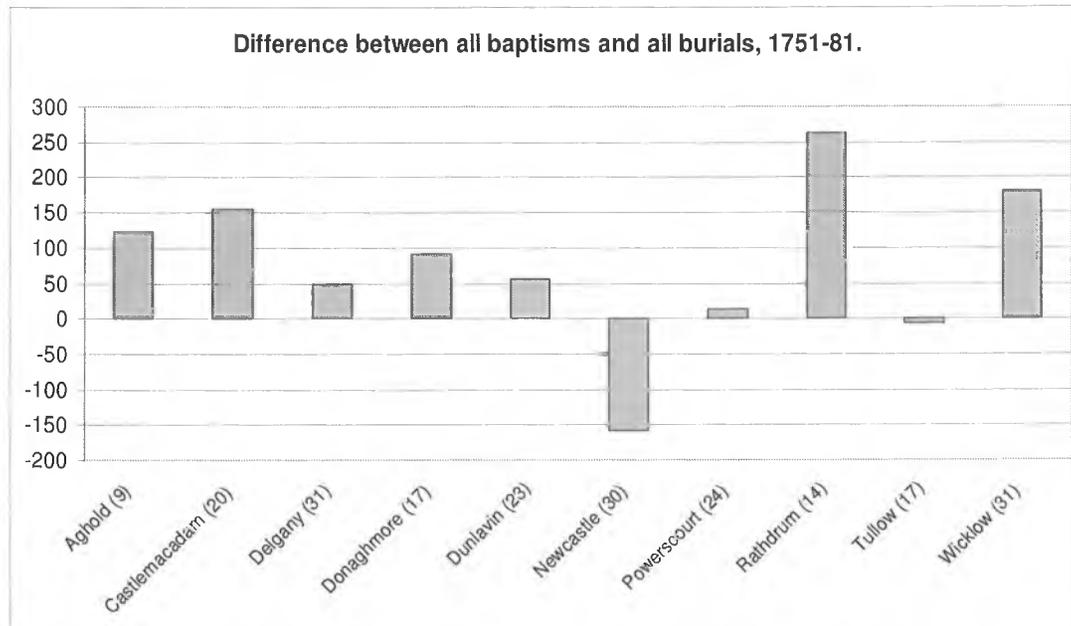


Figure 65 - Difference between aggregate of all baptisms and all burials in period 1751-81.

This presents difficulties, because, based on the findings in chapter two, it would have been reasonable to anticipate indications of sustained Protestant decline, although the likelihood, noted earlier, that baptismal recording was being undertaken more thoroughly than burial registration may be operating to disguise the fundamental trends. Unfortunately, the unavailability of censuses equivalent to the 1766 denominational survey means baptism and burial totals for other periods can only be speculatively, rather than statistically, judged. Nonetheless, the 30 years between 1720 and 1750 appear to have been typified by a gradual Protestant advance during the first two decades, followed by stagnation and decline during the 1740s. Even the late 1720s, which is traditionally viewed as a period of intense crisis, does not appear to have raised insurmountable demographic challenges for Wicklow's Protestant communities. Figure 66 shows the difference between baptisms and burials in six parishes – two in the east, three in the west, and mountainous Rathdrum. The arbitrary cut-off figure of twenty years of acceptable entries used during the 1751-81 period has been reduced to fourteen for this period, because of the paucity of data.

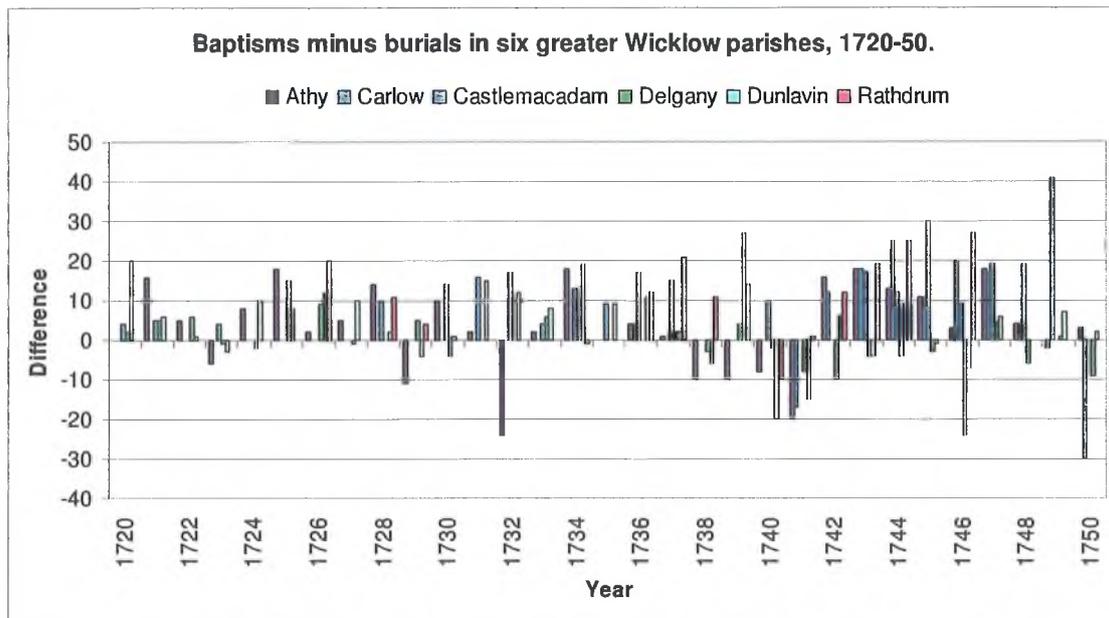


Figure 66 – Difference between baptisms and burials in six Wicklow parishes, 1720-50.

Two noticeable characteristics are evident in this graph. In the first instance, the contrast between the 1740s and the preceding two decades is pronounced. In Dunlavin, for example, twenty-seven more baptisms than burials in 1739 gave way to twenty more burials than baptisms the following year, and only Castlemacadam reported contrasting trends. Many parishes appear to have rapidly recovered from troubles of 1740-1, although in Delgany and Dunlavin burials regularly exceeded baptisms, usually only marginally, for the remainder of the 1740s. In Athy, burials exceeded baptisms during all four years between 1738 and 1741, as was also the case in Dunlavin during three of these years. In Delgany parish, however, which consistently presents the most reliable series, the situation was worse, and prolonged, with burials exceeding baptisms during ten of the thirteen years between 1738 and 1750. This was most notable in 1746, when the parish reported thirty-eight burials, which must have greatly exceeded the upper boundary figure of 35 per 1,000 people (table 44).

Secondly, figure 66 presents further evidence that demographic crises need not be national, or even regionally, and verifies that local areas could be struck by mortality crises, which did not impact over a wide geographic area. Earlier, the occurrence of a localised demographic shock was identified during the 1760s, for

north-east Wicklow, and for this period localised crises can be observed in Athy in 1729 and 1732 (coinciding with a similar crisis in Drogheda (footnote 87)), in Delgany in 1746 and in Carlow in 1750 (figure 66). The spike in burials in Carlow is remarkable (figure 67), with levels that year more than 250 per cent higher than the mean level recorded during the previous five years, and this crisis appears to have had an even deadlier impact than the difficulties during 1741 and 1742. The identification of these localised crises loosely supports the concept, suggested earlier, of possible denominational variations in the impact of mortality crises (figure 55). If neighbouring parishes could be impacted in different ways by simultaneous difficulties, then differing communities within the same parish could be similarly impacted, either because of differing diet or varying access to poor relief.

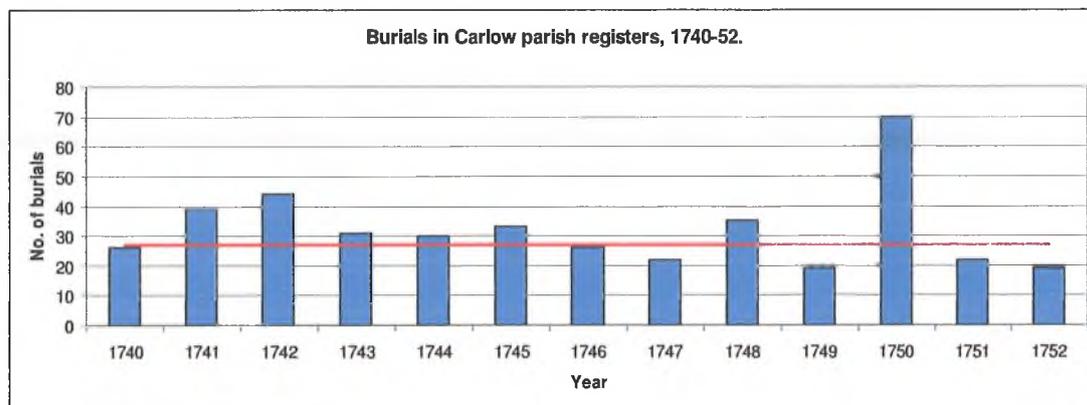


Figure 67 – Burials in Carlow, 1740-52.

Note: red horizontal line represents mean number of burials between 1745 and 1749.

For the early-1740s period, the data suggests that the downturn had a contrasting impact in different areas. A sustained recovery in Athy, Carlow and Rathdrum in the years after 1741 is evident, which contrasts with the findings for other parishes. This may imply that inland areas such as Athy, Carlow and Rathdrum had suffered disproportionately during 1740 and 1741 (again, the burial data may be unreliable) and the population level was rebounding during more favourable times, although it should also be noted that a plot of the difference between baptisms and burials can, particularly because of the time-lagged impact

of subsistence crises on birth-levels, disguise significant fluctuations in burial levels. The baptism and burial series for Rathdrum usefully illustrate this point.

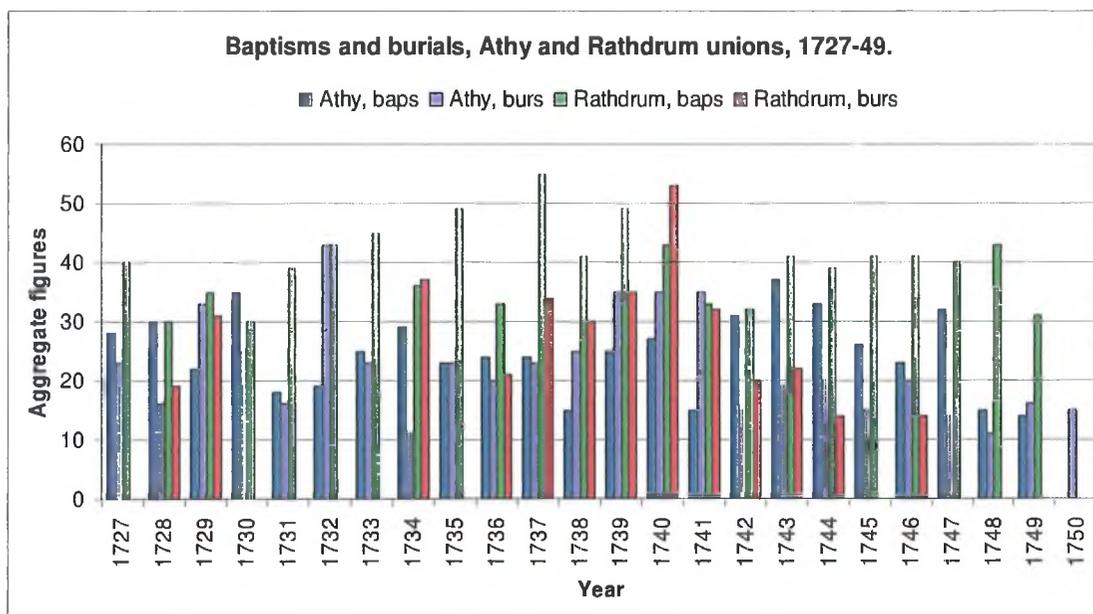


Figure 68 – Athy and Rathdrum unions, baptism and burial series, 1727-49.

Figure 68 shows the baptism and burial series for Athy and Rathdrum between 1727 and 1749. In Rathdrum burials soared during 1740 to twice the mean level recorded between 1736-9 and 1741-4, although this is not immediately evident from the baptism and burial combinations shown in figure 66. The difference between baptisms and burials remained muted during 1740, however, because the time-lagged drop in baptisms did not feed into the statistics until the following year, at which stage the crisis had begun to abate. Similarly, in Athy the levels of recorded burials were consistently high in 1739, 1740 and 1741, before falling back to more characteristic levels in 1742, but the number of baptisms did not fall in response to the subsistence difficulties until 1741. It is notable, too, that the common pattern of an enthusiastic recovery after a demographic shock is evident in this data. In both parishes, baptisms dipped to relatively low levels during the difficulties of the late 1720s, but quickly recovered in subsequent years. By the late 1730s annual baptisms in Rathdrum were running at a high level, and remained high in 1740, even though, as evidenced by the burial peak, the area was in the teeth of a serious subsistence difficulties. Then, in 1741, when burials

returned to typical levels, baptisms fell as the time-lagged impact of famine and malnourishment on the birth-rate manifested itself, but by 1743 the baptism level had again rebounded.

It is surprising to observe the non-appearance of the supposedly difficult 1720s in the burial data, although the recording for many parishes was patchy around this time, which may be a reflection of contemporary difficulties. Only a handful of burial peaks is evident, although fifty-six burials in Wicklow in 1730 and thirty-one burials in Rathdrum in 1729 represent significant totals for those respective parishes. Wicklow's burial total was exceeded only by the sixty-eight burials recorded in the crisis year of 1763 although there are substantial gaps in that parish's burial records during the century (unfortunately no burial data is available for the period around the 1740s). Around this time too, burials exceeded baptisms in Athy in 1729 and 1732, in Dunlavin in 1729 and in Delgany in 1730. These contemporary statistics strongly suggest that there was a demographic impact in the general Wicklow region at this time, although less than thorough recording of burials in many parishes makes it difficult to quantify.

The above examination has been tempered by the inclusion of burial data, over which some doubt remains about its accuracy, and while the inclusion of burial figures in the calculations allowed for the identification of critical crisis-years, the decline in Protestant numbers between 1732 and 1766, reported in chapter two, thus far remains unexplained. Considering Protestant fertility on its own, however, can provide an alternative opportunity for examining contemporary mid-century demographic trends. Figure 69 shows the total number of baptisms in the six parishes for which either accepted baptismal totals or estimates are available for all years in the period 1725-70. This graph shows most clearly the course of the fertility rate during these forty-five years, and confirms many of the trends which have been outlined above.

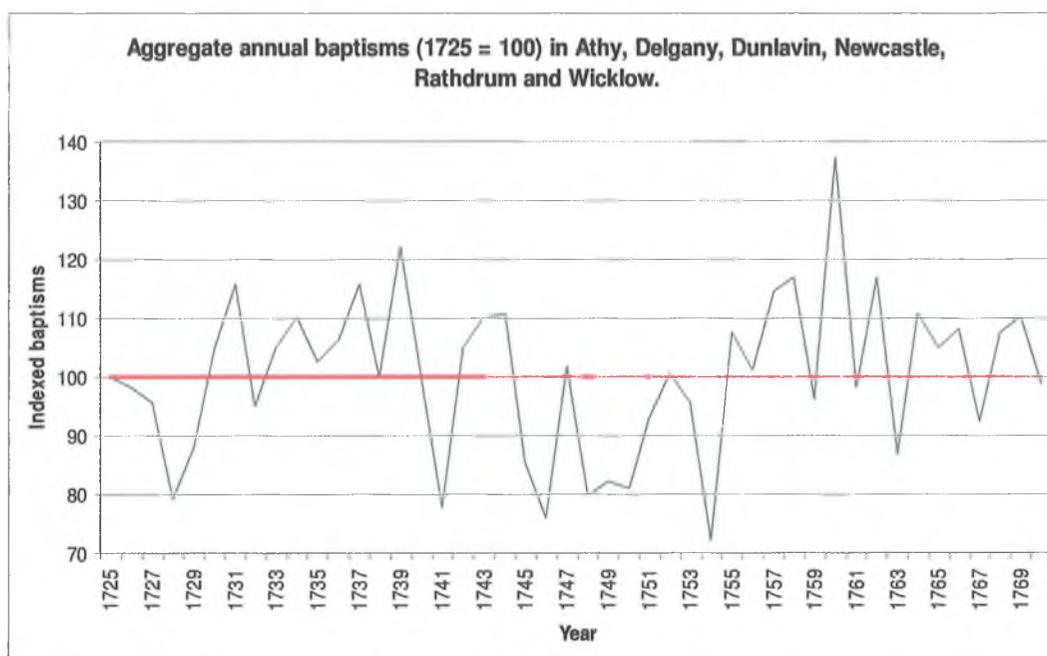


Figure 69 – Annual baptism totals in six parishes in greater Wicklow, 1725-70 (1725=100).

During this extended period, baptisms fell below the level recorded in 1725 on nineteen occasions, most significantly in the periods 1726-9, 1741, 1745-6, 1748-51, 1753-4 and 1763. The index fell below 80 per cent of the 1725 total on five occasions, in 1728 (79.1), 1741 (77.8), 1746 (75.9) and 1748 (79.7), and the lowest figure recorded was in 1754 (72.2), a year which had required large-scale grain imports.¹¹⁹ A sharp decline in fertility in the late 1720s and a prolonged decline in the 1740s and 1750s are the most prominent features.¹²⁰ The fertility rate recovered rapidly in the immediate aftermath of the 1740-1 crisis (the index only dipped below 100 for 1741), but eight years of the ten years between 1745 and 1754 saw fewer baptisms than were recorded in 1725. This data represents strong evidence that serious demographic stresses were being experienced during this period, particularly throughout the 1740s, which are being masked by the inclusion of burial data (figure 66). A prolonged, depressed fertility rate is compatible with a Malthusian disaster and the Protestant population level must have been falling at this time. During the entire period 1725-70 the mean index figure for baptisms compared to the 1725 figure was only 100.4, a miniscule figure which is not compatible with a steadily increasing population. The weight of evidence, therefore, suggests that the attrition of the 1740s must have been

taking its toll on the Protestant population, which was at best stagnant and more likely in decline during this period

For the 1700-20 period even less data are available, and just five parishes have likely reliable baptism and (possibly reasonable) burial records for ten of these twenty years (figure 70). Of these parishes, four are in the west or south-west of the greater Wicklow region, and Delgany is the only representative in the eastern parts. For all of these parishes, and for all years, recorded baptism exceed burials during this period, which would seem to imply that these two decades were relatively free from serious subsistence crises. Only the Athy, Delgany (two years) and Dunlavin records record more burials than baptisms in any calendar year during this period, and in all cases the difference is small. It is unlikely to be a coincidence that the Delgany and Dunlavin statistics are for years which follow closely on a series of proclamations concerning engrossing and forestalling the selling of corn issued in the closing years of the century's opening decade.¹²¹ In other parishes, while baptisms may have exceeded burials during these years, the difference between the two figures narrowed towards zero.

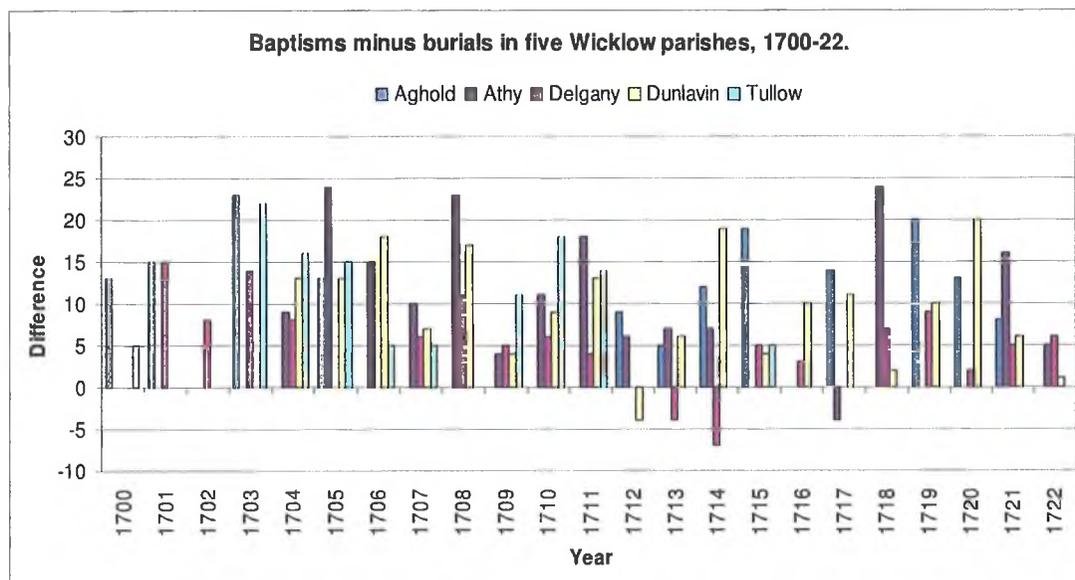


Figure 70 – Difference between baptisms and burials in five Wicklow parishes, 1700-22.

Population trends, a view from the parishes

Registration in some parishes is sufficiently thorough to allow for a consideration of population levels at the local level and the Delgany situation in particular, because of the quality of registration there, deserves closer examination. In that parish, during the 1710s, baptisms were relatively high until 1709, when they dipped for nine consecutive years (figure 71). During this period, burials peaked in 1709 (coinciding with proclamations regarding grain shortages), 1713 and 1714. In the years following the 1714 burial peak, baptisms fell to the lowest level in more than a decade and did not recover towards the levels recorded in the years between 1700 and 1709 until 1719. As was observed for Rathdrum, while a plot of the difference between baptisms and burials can give indications of general demographic trends, it is the annual specifics of baptisms and burials which often emerge as most informative. Although a surplus of burials over baptisms of seven in 1714 is not particularly large, a burial level of twenty-one in that year, followed by a steady, time-lagged decline in baptisms assumes a greater significance, and the Delgany population was exhibiting the traditional demographic response – increase in burials, followed by a time-lagged fall in baptisms – to subsistence difficulties.

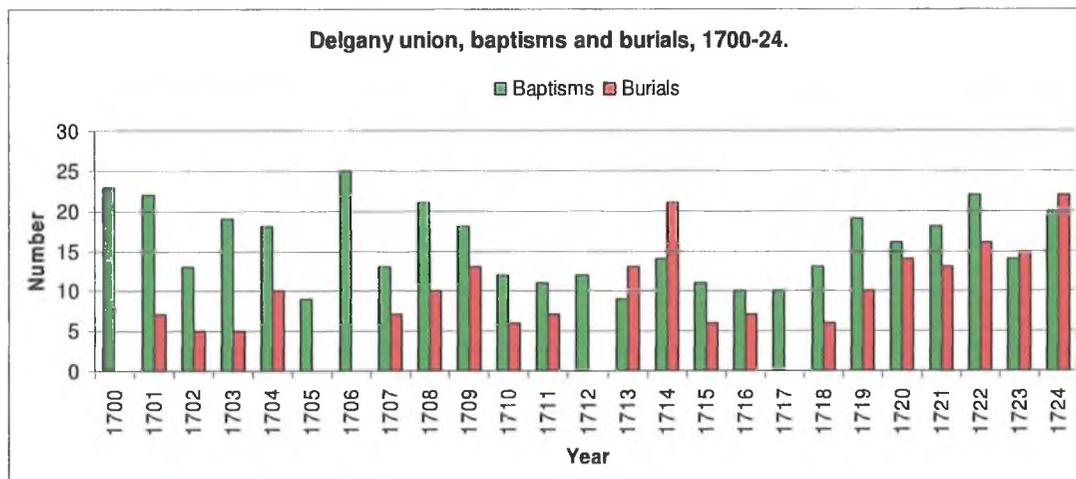


Figure 71 – Baptisms and burials in Delgany union, 1700-24.

As was seen for the 1751-81 period, however, the inclusion of less-than-reliable burial figures can operate to disguise subsistence difficulties, so

the situation may not have been as congenial as is implied by figure 70. Figure 72 shows the fertility levels (baptisms) for four parishes – Athy, Delgany, Dunlavin and Wicklow – for the 1700-24 period, compared to the level recorded during 1700, and presents unquestionable evidence that significant demographic difficulties were actually being experienced during the second decade of the eighteenth century.¹²² It must be remembered, too, that these observed fluctuations in fertility levels were occurring against the backdrop of elevated price levels during 1708-9 and 1715-6 (figure 25).¹²³ Thus, coinciding with the onset of harvest difficulties in 1708, Protestant fertility levels, at least in these four parishes, appear to have declined rapidly, and remained low for an extended period. In fact, fertility levels remained below the 1700-level for all years during a two-decade period from 1711-30. Such a situation is incompatible with demographic expansion, and must inevitably have caused population levels to stagnate, unless the population was being bolstered by external factors. Fewer births in 1710 meant fewer marriage options a generation later, which increased the possibility of mixed marriage and losses to Catholicism. In the light of these difficulties, the varied initiatives from Protestantism at this time, including the holding of a denominational census in 1732-3, the establishment of the charter-schools system to proselytise poor Catholics and the despairing comments from Boulter during the 1720s and 1730s concerning the decline in the Protestant position become more readily understood.¹²⁴

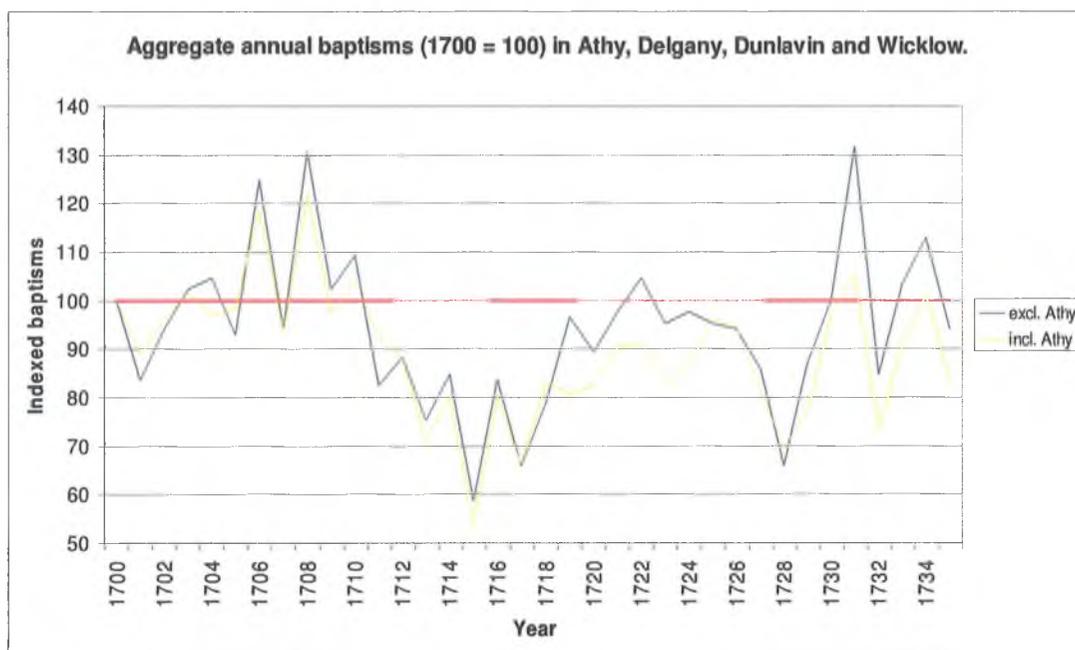


Figure 72 – Annual baptism totals in four parishes in greater Wicklow, 1700-24 (1700=100).
Note: no figures are available for Athy for 1700-3 so these have been estimated from the mean number of baptisms for 1705-9.

Stepping forward in time from 1766, the data become progressively more abundant for the east coast, but less reliable for the western parishes. In the eastern region, aside from the parishes which had been recording during earlier periods, Dunganstown parish, bordering Castlemacadam to the south (figure 57), commenced recording in 1782, which provides a first opportunity to examine population levels in the south-east of the county. The demographic trends evidenced in the registers for this period again strongly support evidence of the population trends that were propounded in chapter two. Demographic decline, which had been a feature of Wicklow's Protestant community in the first half of the eighteenth century, ceased, and a soaring population is evident for much of the period from the 1780s onwards, with most parishes recording more baptisms than burials throughout the period (figure 73). Newcastle and Powerscourt are the most consistent in recording negative natural population growth but it is likely that the Newcastle situation was still being complicated by the tradition of recording Catholic burials. If Newcastle and Powerscourt are excluded from the calculations, then only Wicklow parish records negative growth at any stage during the period, and that was for two consecutive years in the mid-1780s. In some parishes

impressive growth-rate figures are exhibited, especially in Rathdrum where during six of the twenty years between 1780 and 1800 baptisms exceeded burials by at least twenty.

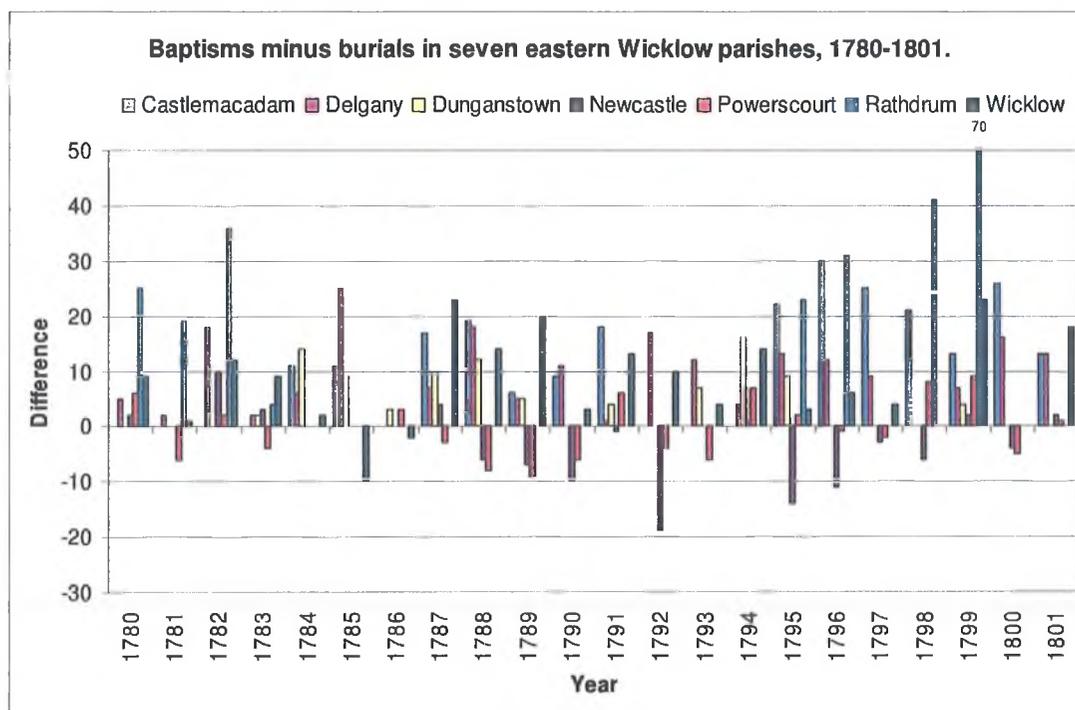


Figure 73 – Difference between baptisms and burials in seven parishes in east Wicklow, 1780-1801.

From the mid-1790s the impediments to growth were more pronounced as food shortages and high prices in 1794-6 were followed by security difficulties during 1798 and afterwards. Towards the latter end of this period the security situation in the county skewed normal demographic growth patterns. During, and in the years after, 1798 large numbers of troops were stationed in the county, and marriages between soldiers and local women became common. The impact of 1798 on growth-rate patterns, was, therefore, ultimately positive, at least in the short term. In Rathdrum, where large numbers of troops were stationed, baptisms exceeded burials in the year 1800 by seventy, a figure never before achieved in any parish in the county, and in other parishes, the situation was comparable, but on a less dramatic scale. It is notable that the famine and potato failure of 1800-1 is not evident in the figures.

As with previous periods, however, the fertility rate again presents a slightly less rosy picture (figure 74). In general, baptisms exceeded the levels recorded in 1770 between 1771 and 1792, although the food shortages of 1772-4, 1782-4 (failure of both grain and potato crops) are both manifested in dips in fertility levels, although the impact of the shortages in 1772-4 appears to have been transient, and small.¹²⁵ In 1792, a prolonged decline in fertility occurred, which had not yet subsided by the time the county exploded in rebellion in 1798. Clearly, therefore Protestant fertility remained closely correlated with the price of food, even by the closing years of the eighteenth century.¹²⁶

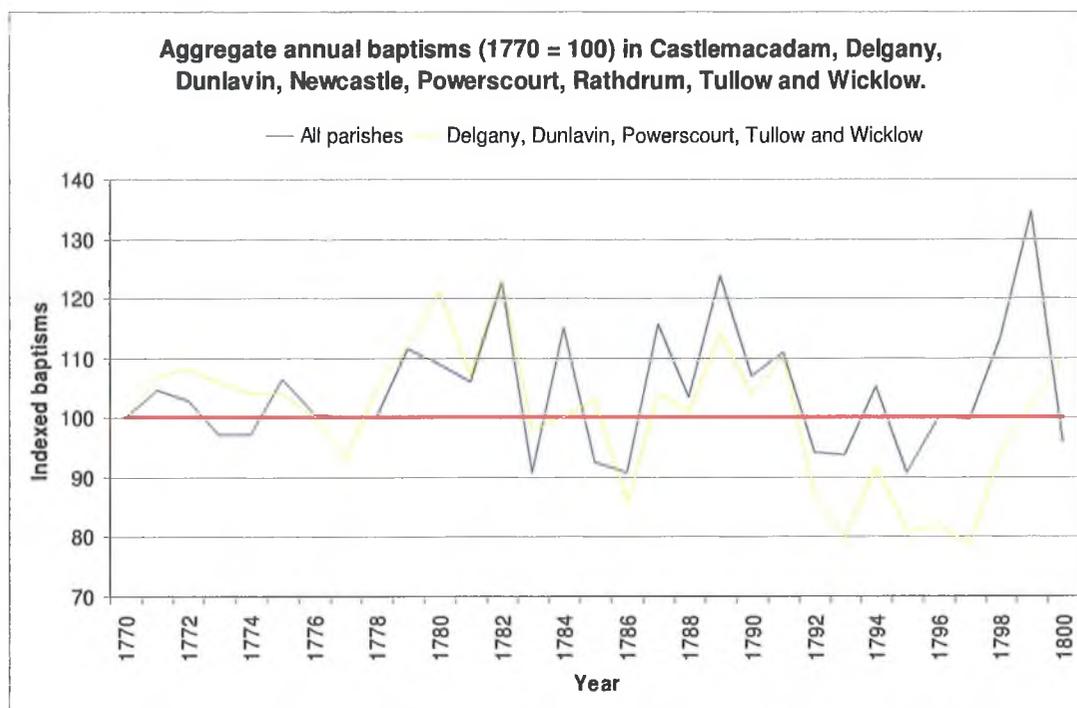


Figure 74 – Annual baptism totals in various parishes in greater Wicklow, 1770-1800 (1770=100).

Note, No baptisms are recorded in Castlemacadam for 1779, Newcastle for 1780 and 1781, and Rathdrum for 1797. Estimates have been included for these missing years (blue graph). The yellow graph excludes these deficient parishes.

Conclusion

In chapter two a sprinkling of widely spaced barony-level population and religious breakdown estimates were proposed. Most controversially, these estimates suggested that the Protestant population had declined between 1732 and 1766. In this chapter it has been possible to examine the reliability of some of the

previously derived estimates through an examination of surviving parish-register data, from which two principal findings have emerged. First, it has been possible to formulate some opinion on the accuracy of this reputed decline in the Protestant position, by working backwards and forwards from a period centred on 1766, identifying Protestant natural population trends in various parishes. It was seen that a declining Protestant population in mid-century was largely opaque in the natural population trends, but when the fertility rate was examined on its own, likely periods of demographic decline clearly emerged. In broad terms, Protestant fertility between the 1710s and the 1760s appears to have been under pressure, thus supporting the hypothesis of a decline in Protestant numbers during mid-century, and possibly even during the two decades prior to 1730.

A second key observation is that demographic difficulties could be highly localised, and may perhaps even have been denominationally specific. In particular, it was seen that Protestant communities in the eastern region appear to have experienced differing fertility trends to those exhibited by Wicklow's Catholic community, during the period between 1750 and 1780. These two findings provide an important framework for part two of this study, which probes aspects of settlement and society in County Wicklow in the seventeenth and eighteenth centuries.

References, chapter 3

¹ Parish estimates could have been derived for 1668-9, from the hearth roll, and for 1766, from the religious census.

² A failed attempt to introduce civil registration was made in 1616-7 (*Cal. pat. rolls Ire., Jas 1*, pp 313, 14 James I, part 2, no. LXXI (1 November 1616), 320-1, 14 James I, part 3, no. LVII (8 March 1617); *Calendar of state papers relating to Ireland, 1615-21* (London, 1880), p. 140, no. 299 (hereinafter cited as *Cal. S.P. Ire.*). Requiring the parish clergymen to make regular returns of these events, this system, had it been widely adopted, would have effectively initiated universal parish registration by parish clergymen. The extent of compliance with this instruction is not known, but there is evidence that some parishes may have responded positively to the initiative (Surviving evidence confirms that some Dublin city parishes were keeping registers but there is no evidence that the practice was widespread throughout the country. James Mills (ed.), *Registers of the parish of St John the Evangelist, Dublin, 1619-1699* (Dublin, 1906), p. iv. At least four Dublin city parishes were keeping parish registers before the introduction of the 1634 canons. St Werburgh parish had commenced parochial recording at least as early as 1626 and St John's parish registers commence in 1620 (Letters from ye several internuncios is ye reign of King Charles II (T.C.D. MS 851, f. 107); Mills (ed.), *Registers of St John the Evangelist*, pp iii, 3). Also, registers for St Nicholas without are known to have commenced in 1631 and registers for St Bride parish commenced in 1633 (*Twelfth report of the deputy keeper of the public records in Ireland* (Dublin, 1880), pp 224, 225)). Notably, an influential deputation complained to the King in May 1620 about the fees charged for public registration, suggesting that the practice may indeed have been widely practiced, at least in Dublin city (*Cal. S.P. Ire., 1615-25*, p. 283, no. 632). The deputation, protesting that registration should be performed by parish ministers for the standard fees, were successful, and the practice of public registration appears to have quickly been abandoned (Mills (ed.), *Registers of St John the Evangelist*, p. iv).

³ Reflecting the duration of human gestation, and the birth – baptism interval.

⁴ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 157.

⁵ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 174.

⁶ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 181.

⁷ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 20.

⁸ Michael Drake, 'An elementary exercise in parish register demography' in *Econ. Hist. Rev.*, xiv (1961-2), p. 427.

⁹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 457-83.

¹⁰ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 461-80.

¹¹ 'A third factor which is likely to be of major importance in explaining excess mortality is urbanization. Since urban areas were more commercialized, the absence of potatoes did not completely cut off the food supply, though it did raise the prices of necessities to dangerous and, at times, lethal levels' (Joel Mokyr, *Why Ireland starved* (London, 1983), p. 268).

¹² Dyson and Ó Gráda, 'Introduction', pp 4, 6-7; Tim Dyson, 'Famine in Berar, 1896-7 and 1899-1900: echoes and chain reactions' in *ibid.*, pp 98-9 (Dyson reports that the death rate largely remaining at normal levels during the first year, only to increase sharply during the second year of the crisis); Violetta Hionidou, "'Send us either food or coffins": the 1941-2 famine on the Aegean island of Syros' in *ibid.*, pp 185-6.

¹³ See Dyson and Ó Gráda, 'Introduction', p. 10 for possible exceptions to this, which are of little importance in the Irish context.

¹⁴ Dyson and Ó Gráda, 'Introduction', p. 11.

¹⁵ Dyson and Ó Gráda, 'Introduction', p. 11. For example, a second mini-famine in Syros in 1944 saw a significant reduction in fertility with no corresponding reduction in mortality (*ibid.*).

¹⁶ E. A. Wrigley, 'Family limitation in pre-industrial England' in *Econ. Hist. Rev.*, 2nd series, xix, no. 1 (1966), pp 83-9 (hereinafter cited as Wrigley, 'Family limitation in pre-industrial England').

¹⁷ Dyson and Ó Gráda, 'Introduction', pp 11-2. There is usually, of course, a characteristic time-lagged delay of 9 months, in the 'rebound' in births, as societal organisation readjusts to normal conditions.

¹⁸ Dyson and Ó Gráda, 'Introduction', p. 11.

- ¹⁹ L. M. Cullen, 'Irish history without the potato' in *Past & Present*, xl (1968), p. 76 (hereinafter cited as Cullen, 'Irish history without the potato'); idem, *Ec. hist. of Ire.*, pp 68-9.
- ²⁰ Robert Steele, *A bibliography of royal proclamations of the Tudor and Stuart sovereigns, 1485-1714* (2 vols., Oxford, 1910), ii, pp 107 (nos 851, 852, 854), 117 (no. 920), 118 (no. 930), 124 (no. 976), 163-4 (nos 1327, 1328, 1330), 170 (no. 1380), 171 (no. 1389), 174 (no. 1407) (hereinafter cited as Steele, *Tudor & Stuart*).
- ²¹ Steele, *Tudor & Stuart*, ii, p. 170 (no. 1380).
- ²² Steele, *Tudor & Stuart*, ii, p. 164 (no. 1328). Proclamation dated 29 March 1697.
- ²³ Steele, *Tudor & Stuart*, ii, pp 192 (no. 1555, this proclamation is missing but must have been dated from March 1708, see p. 563, for listing of this proclamation), 194 (no. 1570), 195 (nos 1579, 1581).
- ²⁴ Gregory Monahan, *Year of sorrows, the great famine of 1709 in Lyon* (Columbus, 1993), pp 71-5.
- ²⁵ Andrew Appleby, 'Grain prices and subsistence crises in England and France, 1590-1740' in *The Journal of Economic History*, xxxix, no. 4 (1979), pp 873, 881.
- ²⁶ Steele, *Tudor & Stuart*, ii, p. 196 (no. 1588).
- ²⁷ Louis Cullen, *An economic history of Ireland since 1660* (2nd ed. London, 1987), p. 43 (hereinafter Cullen, *Ec. hist. of Ire.*); Dickson, 'Gap in famines', p. 99. Francis McCorry notes a huge increase in burials in Shankill, County Armagh, in October and November 1708 (Francis McCorry, *Parish registers, historical treasures in manuscript* (Lurgan, 2004), p. 138 (hereinafter cited as McCorry, *Parish registers*)), which much be an indication of the impact of this demographic crisis on this local area.
- ²⁸ Cullen, *Ec. hist. of Ire.*, p. 46.
- ²⁹ Jonathan Swift, *A modest proposal for preventing the children of poor people from being a burthen to their parents, or their country, and for making them beneficial to the publick* (Dublin, 1729) (hereinafter cited as Swift, *Modest proposal*); James Kelly, 'Harvests and hardship: famine and scarcity in Ireland in the late 1720s in *Studia Hibernica*, xxvi (1992), pp 65-105.
- ³⁰ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', pp 152, 164; Donnelly, *Short history of Dublin parishes*, iii, p. 103 (hereinafter cited as Donnelly, *History, Dublin parishes*); Margaret Crawford (ed.), 'William Wilde's table of Irish famines' in idem, *Famine, the Irish experience*, pp 11-2 (hereinafter cited as Crawford (ed.), 'Wilde's table of famines'); Charles Smith, *The ancient and present state of the county and city of Cork* (2nd ed., Dublin, 1774), ii, p. 233 (hereinafter Smith, *Ancient, present state of Cork*).
- ³¹ John Post, *Food shortage, climatic variability, and epidemic disease in preindustrial Europe, the mortality peak in the early 1740s* (New York, 1985), p. 96 (hereinafter cited as Post, *Food shortage, climatic variability .. in preindustrial Europe*). For a view of the changing thoughts on the position of the potato in the Irish diet see K. H. Connell, 'The potato in Ireland' in *Past and present* xxiii (1962) (p. 60, the potato was dominant by 1730s); Michael Drake, 'Marriage and population growth in Ireland, 1750-1845' in *Econ. Hist. Rev.*, 2nd series, xvi, no. 2 (1963), p. 312 (potato very important by 1780s); Cullen, 'Irish history without the potato', pp 74-5 (potato never dominated to the extent that has often been believed, and was certainly not dominant by 1780s).
- ³² Boulter to the archbishop of Canterbury, 24 February 1728, in *Letters of Hugh Boulter*, i, p. 178. Boulter also noted that the harvest had failed in 1725 and 1727.
- ³³ Cullen, *Ec. hist. of Ire. since 1660*, p. 46.
- ³⁴ Boulter to Lord Carteret, 20 July 1727, in *Letters of Hugh Boulter*, i, p. 151; *Handlist of proclamations issued by royal and other constitutional authorities, 1714-1910* (Wigan, 1913), p. 35, dated 26 December 1728 (hereinafter cited as *Handlist of proclamations, 1714-1910*); Boulter to Carteret, 14 December 1728, in *Letters of Hugh Boulter*, i, p. 215.
- ³⁵ Boulter to Carteret, 24 August 1727, in *Letters of Hugh Boulter*, i, p. 153.
- ³⁶ Boulter to the archbishop of Canterbury, 24 February 1728, in *Letters of Hugh Boulter*, i, pp 178-9.
- ³⁷ Boulter to the archbishop of Canterbury, 24 February 1728, in *Letters of Hugh Boulter*, i, p. 178; The bill was ultimately passed as An act for regulating measures made use of in buying and selling of corn, and for promoting husbandry in this kingdom (1 George II, c. 10 (*Stat. Ire.*, v, pp 226-8)).
- ³⁸ An Act for regulating the price and assize of bread, and the markets ((1 George II, c. 16 (*Stat. Ire.*, v, pp 261-73)); Boulter to the duke of Newcastle, 13 March 1729 in *Letters of Hugh Boulter*, i, p. 230 (also see p. 215 to note that the subscription was initiated at least by 14 December 1728).

³⁹ Cullen, *Ec. hist. of Ire.*, p. 47; Oatmeal was selling in Galway for 12s. per bushel (Dutton, *Statistical survey of Galway*, p. 310); *Handlist of proclamations, 1714-1910*, p. 37 (12 April 1730).

⁴⁰ Post, *Food shortage, climatic variability .. in preindustrial Europe*, pp 86-110 (pp 87, 96-8 for Ireland).

⁴¹ Post, *Food shortage, climatic variability .. in preindustrial Europe*, p. 32.

⁴² Dutton, *Statistical survey of Galway*, p. 312.

⁴³ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 167-8.

⁴⁴ Dutton, *Statistical survey of Galway*, p. 312-3; Smith, *Ancient, present state of Cork*, ii, pp 233-4; Dickson, *Arctic Ireland* (Belfast, 1997), pp 11-12.

⁴⁵ *Handlist of proclamations, 1714-1910*, p. 51 (19 January 1740).

⁴⁶ See Cullen, *Ec. hist. of Ire. since 1660* (London, 1772), pp 68-9; Michael Drake, 'The Irish demographic crisis of 1740-41' in *Hist. Studies*, vi (1968), pp 106-7; McCorry, *Parish registers*, p. 139.

⁴⁷ In Cork, for example, wheat was selling for £2:2. per kilderkin in the summer of 1741 whilst in Galway wheat was fetching 28s per hundredweight. By 1743, when the crisis had subsided, the cost of a kilderkin of wheat in Cork had fallen to 6s. 6d, and in 1754 a hundredweight of Galway grain cost just 6s, 80 per cent less than the 1741 peak price (Smith, *Ancient, present state of Cork*, ii, pp 233-4; Dutton, *Statistical survey of Galway*, p. 313). Note that weights and measures were not standardised at this time, and the same term could refer to different quantities even in neighbouring parishes. Smith reports a kilderkin to be 20 stone (*ibid.*), but Wakefield notes a Cork kilderkin of oats to be just 11 stone and a kilderkin of barley to be 12 stone (Wakefield, *Account of Ire.*, ii, p. 202).

⁴⁸ Dickson, *Arctic Ireland*, p. 38; *F.D.J.*, 5-9 May 1741. Boulter's response to the crisis earned him the praise of many – 'what he did in the year 1739-40, in the great frost, almost exceeds belief; there was not a poor, distressed person in the great city of Dublin who applied, that was not daily given relief to the full, and chiefly by his bounty: the House of Commons took this so well, that they voted him very justly their thanks on this remarkable instance of his goodness' (*Letters of Hugh Boulter*, i, 224; David Dickson, *Arctic Ireland*, pp 35-8. See Dickson's book for a good general introduction to this crisis).

⁴⁹ A proclamation was issued on 1 June 1741 to apprehend people who had gathered 'in a riotous manner' to prevent the transport of corn from Carrick-on-Suir to Waterford (*Handlist of proclamations, 1714-1910*, p. 53).

⁵⁰ Dickson, *Arctic Ireland*, p. 57.

⁵¹ John Ruddy, *A chronological history of the weather and seasons, and of the prevailing diseases in Dublin during the space of forty years* (Dublin, 1770), p. 127; Cullen, *Economic hist. of Ire.*, p. 69. In Galway in 1745 a snowfall forced many from the land, and wheat reached 18 s. per hundredweight (Dutton, *Statistical survey of Galway*, p. 313). Dickson *et al.* suggest that this crisis may have had greatest impact in northern and western parts (Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', pp 166, 168).

⁵² *Handlist of proclamations, 1714-1910*, pp 86 (9 & 26 November 1756), 92, Dutton, *Statistical survey of Galway*, p. 315.

⁵³ Dickson, 'Gap in famines', p. 101.

⁵⁴ Cullen, *Economic hist. of Ire.*, p. 68; An act to prevent the distilling of spirits from wheat, oats, bear, barley, malt, beans, and peas, or from potatoes, meal, or flour of wheat, oats, bear, barley, malt, beans, or peas, for a limited time (31 George II, c. 2 (*Stat. Ire.*, vii, pp 497-9)).

⁵⁵ Wakefield, *Account of Ire.*, ii, p. 8.

⁵⁶ Dickson, 'Gap in famines', p. 105; *Cal. Home Office papers, 1760-1765* (London, 1878), p. 630-1, no. 2039.

⁵⁷ *Handlist of proclamations, 1714-1910*, pp 111 (7 & 23 October 1766), 112 (24 July & 28 August 1767), 113 (26 November 1767), 114 (24 December 1767).

⁵⁸ An Act to prevent the distilling of spirits from wheat, oats, bear, barley, rye, meslin, malt, beans, and peas, and from any potatoes, meal, or flour of wheat, oats, bear, barley, rye, meslin, malt, beans, or peas for a limited time disallowing distilling and brewing of the listed produce between 1 January and 1 October 1766 (5 George III, c. 3 (*Stat. Ire.*, ix, pp 285-8)); An Act to prevent the exportation of corn under certain restrictions for a limited time (5 George III, c. 4 (*Stat. Ire.*, ix, pp 288-9)); An Act for the better preservation of corn (5 George III, c. 18 (*Stat. Ire.*, ix, pp 372-4)).

⁵⁹ John Hely-Hutchinson, *The commercial restraints of Ireland considered in a series of letters to a noble lord* (Dublin, 1779), p. 77; Richard Caulfield (ed.), *The council book of the corporation of the city of Cork: from 1609 to 1643, and from 1690 to 1800* (Guildford, 1876), p. 869 (hereinafter Caulfield (ed.), *Council book of Cork*).

⁶⁰ Dickson, 'Gap in famines', p. 100; Kelly, 'Scarcity and poor relief in Ireland, 1782-4', pp 38-62.

⁶¹ Youghal corporation moved to encourage the production of food at market in 1771, by reducing duties, Richard Caulfield (ed.), *The council book of the corporation of Youghal*, p. 482 (29 June 1771) (hereinafter cited as Caulfield (ed.), *Council book of Youghal*); 'To prohibit the exportation of flour, meal, potatoes, and all other grain from this city [Cork], as a scarcity is apprehended', Caulfield (ed.), *Council book of Cork*, p. 869 (27 May 1772); 'inquiry into the rising of such mobs formerly [1771], and this year [1773] to prevent a small quantity of oats being shipped', Caulfield (ed.), *Council book of Youghal*, p. 486 (28 September 1773); Serious riots erupted in Cornwall in February 1773 when corn was seized by rampaging mobs. Troops had to be called to control the situation and multiple deaths ensued, *Cal. Home Office papers, 1773-75* (London, 1899), pp 8-9 (no. 30), 17 (nos 57, 60), 21 (no. 70), 22 (no. 75), 24 (no. 84); *Handlist of proclamations, 1714-1910*, pp 153 (13 November 1782), 154 (9 June 1783); Caulfield (ed.), *Council book of Cork*, p. 989 (12 February 1784).

⁶² Dickson, 'Gap in famines', pp 98, 102.

⁶³ Liam Kennedy, 'The cost of living in Ireland, 1698-1998' in David Dickson and Cormac Ó Gráda (ed.), *Refiguring Ireland, essays in honour of L. M. Cullen* (Dublin, 2003), p. 270 (hereinafter cited as Kennedy, 'Cost of living, Ireland, 1698-1998'). It is challenging to distinguish the finer details of the cost of living index from the graphs in this work, but Professor Kennedy has provided me with the statistical data underpinning his indexes, for which I am very grateful.

⁶⁴ Charles Smith believed the 1740s distresses to have been more acute than the late 1720s scarcities, referring to 'the scarcity of the years 1728 and 1729, the winter of the former and the summer of the latter, and the terrible distresses of 1740, and the following years' (Charles Smith, *The ancient and present state of the county and city of Waterford* (Dublin, 1746), p. 232).

⁶⁵ Kelly, 'Scarcity and poor relief in Ireland, 1782-4', pp 38-62.

⁶⁶ Kennedy, 'Cost of living, Ireland, 1698-1998', p. 256.

⁶⁷ In Bray, three baptisms were celebrated by a Popish priest in 1747 and 1748 (Bray parish registers, book 1 (R.C.B. Lib. MS P. 580.1.1, p. 27)).

⁶⁸ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 19.

⁶⁹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 20.

⁷⁰ Wrigley and Schofield and Drake were, however, commenting on the application of registers in different circumstances. Wrigley and Schofield were concerned with the aggregation of data from as many parishes as possible, in order to derive population estimates for England, but Drake's tests refer to the application of parish registers for the study of local demography.

⁷¹ Drake specifically refers to six tests which can be performed on registers which have been deemed to be suitable, but includes two pre-tests which are to be used determine whether the registers are actually suitable (Drake, 'Introduction', pp viii-xxiv).

⁷² This is a similar process to that adopted by E. A. Wrigley and R. S. Schofield.

⁷³ Drake, 'Introduction', pp xiv-xv.

⁷⁴ Thomas, 'Family formation in Londonderry', pp 93, 94. Dr Thomas wisely cautions against drawing firm conclusions from the observed trends, because of the smallness (just 1.2 per cent of marriages) of his dataset.

⁷⁵ W. J. Wallace (ed.), *Clergy of Dublin and Glendalough, biographical succession lists compiled by Canon J. B. Leslie* (Belfast, 2001), p. 1025 (hereinafter cited as Wallace (ed.), *Clergy of Dublin and Glendalough, by Leslie*).

⁷⁶ Eight marriages were also recorded for 1697, 1701 and 1722 (Register, Delgany parish, 1666-1779 (R.C.B. Lib., MS P. 917.1.1)) (hereinafter cited as Delgany parish registers, book 1).

⁷⁷ Benjamin Darby married Martha Holloway in April 1692 and their first daughter was baptised in February 1693 (Delgany parish registers, book 1 (R.C.B. Lib., MS P. 917.1.1)).

⁷⁸ This, and the availability of cheap land in Ulster, encouraged inflows of people into that province (Cullen, *Ec. hist. of Ire.*, p. 29).

⁷⁹ Rosalind Mitchison, 'The movements of Scottish corn prices in the seventeenth and eighteenth centuries' in *Econ. Hist. Rev.*, xvii, no. 2 (1965), p. 287; Cullen, *Ec. hist. of Ire.*, pp 27-8.

⁸⁰ Cullen, *Ec. hist. of Ire.*, p. 27.

⁸¹ Cullen, *Ec. hist. of Ire.*, p. 28.

⁸² Steele, *Tudor & Stuart*, ii, pp 164 (22 June 1697, no. 1330), 170 (8 October 1698, no. 1380), 171 (7 February 1698/9, no. 1389), 174 (20 October 1699, no. 1407).

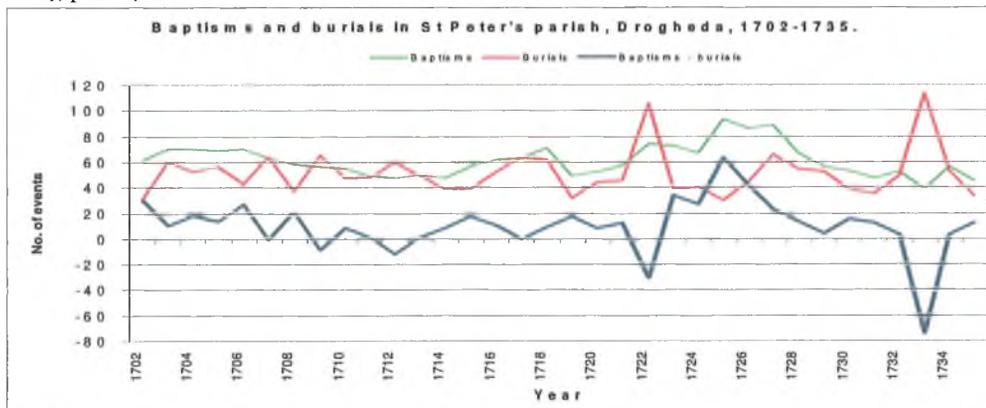
⁸³ Steele, *Tudor & Stuart*, ii, pp 175 (26 April 1700, no. 1418); Cullen, *Ec. hist. of Ire.*, p. 28.

⁸⁴ I am grateful to Professor Kennedy for providing me with the statistical data underpinning his cost of living survey (Kennedy, 'Cost of living, Ireland, 1698-1998', p. 270).

⁸⁵ Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', p. 177.

⁸⁶ Cullen, *Ec. hist. of Ire.*, p. 46.

⁸⁷ The twin weapons of parliamentary statute and royal proclamation were wielded to prevent the plague from reaching Britain and Ireland, and public thanksgivings were pronounced in Britain and Ireland in March and April 1723, for sparing the region from its ravages (An Act to oblige ships coming from infected places more effectually to perform their quarantine: and for the better preventing the plague being brought from foreign parts into this kingdom (8 George I, c. 3 (*Stat. Ire.*, v, pp 10-7)); *Handlist of proclamations, 1714-1910*, pp 19 (16 September 1721, 2 October 1721, 3 October 1721, 6 October 1721, 7 October 1721, 19 October 1721), 20 (19 October 1721, 23 October 1721, 11 January 1721/2), 22 (21 January 1722/3). By March 1722/3 the plague scare had passed (*ibid.*, p. 23 (12 March 1722/3, 23 March 1722/3)). Port towns were particular susceptible to plague, and Drogheda may have been affected at this time. In 1722 burials in St Peter's parish, Drogheda, reached 105, only one of three years between 1700 and 1900 when burials breached the 100-mark. What makes the St Peter's pattern interesting is the evidence it presents of a population's favourable response to a demographic shock; the burial peak of 1722 was followed by three years when baptisms were significantly above recent mean levels. Although the registers are imperfect (gaps between 1736-9 and 1783-1803), for no other subsequent period was there a period of three successive years with comparable levels of baptisms. The corporation minutes are silent on the matter, although an order that the commemoration of the accession of George I be observed 'in as Frugall a manner as possible' may give some indication of the contemporary condition of the town (T. Gogarty (ed.), *Council book of the corporation of Drogheda*, (facsimile reprint by County Louth Archaeological and Historical Society, Dundalk, 1988), p. 359).



⁸⁸ Dickson, 'Gap in famines', pp 96-111; Dickson, *Arctic Ireland*; Crawford (ed.), 'Wilde's table of famines', pp 12-4, Dickson, Ó Gráda and Daultrey, 'Hearth tax, household size and Irish population change', pp 148, 168; Dutton, *Statistical survey of Galway*, pp 312-3; Smith, *Ancient, present state of Cork*, ii, pp 233-4.

⁸⁹ Cullen, *Ec. hist. of Ire.*, p. 68.

⁹⁰ Cullen, *Ec. hist. of Ire.*, p. 71.

⁹¹ Cullen, *Ec. hist. of Ire.*, p. 70.

⁹² Louis Cullen, 'Economic development, 1750-1800' in *N. H. I.*, iv (Oxford, 1979), p. 162.

⁹³ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 89.

⁹⁴ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 89.

⁹⁵ Midi Berry and Roger Schofield, 'Age at baptism in pre-industrial England' in *Population studies*, xxv, no. 3 (1971), pp 453-63 (hereinafter cited as Berry and Schofield, 'Age at baptism').

⁹⁶ This may not be such a bad thing, however. If baptisms are delayed then this reduces the impact of children who died within the first few months of life, which would mean that the baptismal aggregates represent the statistics for the surviving population.

⁹⁷ In the early years of the nineteenth century new Anglican pre-forma registers included space for the recording of birth dates. These registers were adopted by many parishes, but ignored by many more.

⁹⁸ See a selection of articles on the subject in Drake (ed.), *Population studies from parish registers*, pp 48-70.

⁹⁹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 96. Note the progressive increase in the correction factor in table 4.5 (ibid. p. 97).

¹⁰⁰ Raymond Gillespie, *Devoted people, belief and religion in early modern Ireland* (Manchester 1997), pp 76-7 (hereinafter cited as Gillespie, *Devoted people*); Clodagh Tait, 'Spiritual bonds, social bonds: baptism and godparenthood in Ireland, 1530-1690' in *Cultural and Social History*, ii, no. 3 (2005), pp 304, 305.

¹⁰¹ Gillespie, *Devoted people*, pp 76-7.

¹⁰² Berry and Schofield, 'Age at baptism', p. 455; Correspondence regarding age at baptism in pre-industrial England in *Local Population Studies*, xix (Autumn 1977), pp 50-2. 10 per cent was an arbitrarily chosen figure, picked to exclude data which may not be representative of the characteristic situation in the parish.

¹⁰³ Register of baptisms, marriages and burials, Delgany, 1719-1827 (R.C.B. Lib., MS P. 917.1.3, pp 1-32); Rathdrum parish registers, 1795 – 1829 (R.C.B. Lib., MS P. 377.1.2); Newcastle parish registers, 1814-1835 (R.C.B. Lib., MS P. 914.1.4, pp 1-38, 41-5).

¹⁰⁴ It could be no more than chance that the mean birth-baptism interval calculated from the nineteenth century data is longer than the interval derived from the earlier data.

¹⁰⁵ In theory, at least, both sources should have been compiled by the same person, the parish minister.

¹⁰⁶ This period predates the dramatic increase in population which may have commenced about 1780, and population increase between 1751 and 1781 is likely to have been tempered by the occasional subsistence crises, which have been discussed earlier in this chapter.

¹⁰⁷ The *term current-quinquennial mean* (CQM) is used to describe a five-year mean figure, centred on a particular year. Thus, for the year 1760, the CQM is the mean number of events occurring in 1758 – 1762 inclusive.

¹⁰⁸ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 181.

¹⁰⁹ The crude baptism rate fell off again dramatically after 1775, although this drop is more likely to represent deterioration in recording-quality, rather than a decline in fertility in the aftermath of the grain scarcity of the early 1770s.

¹¹⁰ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 103.

¹¹¹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 103.

¹¹² Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 138-9.

¹¹³ It should be noted that these rates are based on readjusted baptism and burial figures, so, although their method of readjustment differs from the monthly and annual interpolation methods employed earlier, the readjusted Wicklow data are effectively compatible with Wrigley and Schofield's base data.

¹¹⁴ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 96-100.

¹¹⁵ It may be practical to estimate the likely trends in 10 per cent of the population from data for the remaining 90 per cent, for example, but it is not practical to attempt a similar calculation when the confessional proportions are reversed.

¹¹⁶ Note that delayed baptism was considerably more influential than non-conformity in the English dataset (Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 561).

¹¹⁷ As David Dickson has noted, 'activity in Protestant graveyards was sensitive to food price fluctuations' (Dickson, 'Gap in famines', p. 101).

¹¹⁸ Note that the figures have only been summed for years with both baptism and burial figures which have been considered to be accurate. It is not the case, therefore, of summing up many years of baptisms and comparing this with a burial total for fewer years.

¹¹⁹ Dickson, 'Gap in famines', p. 101.

¹²⁰ It is likely that the latter decline was being influenced not just by contemporary subsistence challenges, but also by the reduced number of females reaching sexual maturity 16-25 years after

the late-1720s dip, although determining the extent of both impacts is difficult. This generational impact of a temporary decline in fertility, has been commented on by Michael Drake ('a wave-like movement ... with troughs ... and crests') in his examination of Norwegian population series (Michael Drake, *Population and society in Norway, 1735-1865* (Cambridge, 1969), p. 43).

¹²¹ Steele, *Tudor & Stuart*, ii, p. 192 ([proclamation missing], no. 1555); *ibid.*, pp 194-5 (11 March and 19 December 1709, nos 1570 and 1581). .

¹²² Note that this is only for the parishes for which baptism figures (which earlier in the chapter were either adjudged to be accurate or were estimated) are available, for all years. No figures are available for Athy for 1700-3, but these have been estimated from the mean figure for 1705-9.

¹²³ Dickson, 'Gap in famines', p. 99; Boulter to the bishop of London, 11 January 1727 *Letters of Hugh Boulter*, i, p. 165; Boulter to the duke of Newcastle, 7 May 1730, *ibid.*, ii, p. 11.

¹²⁴ Dickson, 'Gap in famines', p. 99; Boulter to the bishop of London, 11 January 1727 *Letters of Hugh Boulter*, i, p. 165; Boulter to the duke of Newcastle, 7 May 1730, *ibid.*, ii, p. 11...

¹²⁵ Dickson, 'Gap in famines', pp 101, 106; Kelly, 'Scarcity and poor relief in Ireland, 1782-4'.

¹²⁶ Dickson, 'Gap in famines', pp 101-2.

Part 2 – Wicklow’s economy and society

The first part of this thesis has focussed on the demographic developments in County Wicklow during the long eighteenth century, between the Restoration and the Act of Union, and has examined how these demographics impacted on the human landscape in the region. However, the impacts of the region’s demographic experiences were not just confined to shaping its physical landscapes. Changing population levels and changing demographic balances within populations affected all aspects of societal organisation, and it is this theme that will be the pre-eminent focus for this second part of the thesis.

This issue is considered on three levels. First, chapter four considers the implications of Wicklow’s population-growth at the level of the county, by examining how formalised economic organisation was influenced by the steady advance of population. In this chapter, the rhythms of annual regional life, particularly with regard to the seasonality of local agricultural practices, are examined through a consideration of the scheduling of fairs and markets. It is argued that formalised economic organisation expanded considerably during the eighteenth century, in response to the demographic and infrastructural developments that were witnessed in the first part of this study. It is also shown that the timing of fairs was linked to local agricultural practices, the seasonal demand for labour and to fluctuations in the money supply.

Chapters five and six focus on the level of the family. The first of these chapters continues the examination of the impact of the economic seasonality, by showing that the annual rhythms of regional economic life also influenced the choices that were made with regard to the formation of families, and it is argued that regional patterns of family formation were closely correlated with local economic rhythms, among other influences. It is also suggested that even conception patterns could be influenced by economic fluctuations, which provide further evidence for the influence that the contemporary economic cycle had on the cycle of daily life and domestic organisation. Chapter six advances the examination of organisation at the level of the family, but from a variety of different perspectives. Bridal marriage age, a fundamental determinant of potential

population change, is considered, which provides further insights into the demographic trends that were outlined in part one of the thesis. Issues of public morality, popular cultures and religious conventions are also shown to have been key influences governing family formation, and population change.

Chapter seven continues the theme of social organisation but at another structural level – the level of the local community. The operation of a number of administrative units could be considered here, but the most appropriate, because of the survival of a considerable body of source material, is the local parish. The parish is particularly appropriate because it was a unit that had a resonance for both Protestants and Catholics, and had secular as well as spiritual responsibilities. Furthermore, in the light of the denominational demographic trends outlined in part one, it will be shown that it became increasingly necessary to involve Catholics in the organisation of parish affairs, at least by the 1760s, which may have been a source of interdenominational tensions. Simultaneous with this, however, organised Catholicism was becoming increasingly visible and increasingly confident, which caused further problems. It is argued that the ultimate, and perhaps inevitable, result of this convergence of demographic pressures and social tensions was an explosion of bloodletting and sectarian conflict, as the region slid rapidly towards civil war at the close of the eighteenth century.

Chapter 4 – The rhythms of regional life

Although many aspects of the demographic developments that were occurring in the Wicklow region after the 1660s have been clarified, the social impact of these demographic developments has not yet been considered. This chapter will consider one aspect of how the county's demographic patterns worked out in everyday life, by examining the patterns of the economic development that were simultaneously occurring. This is a necessary step, because trade and exchange are fundamental elements of the social order in any human community. However, it is not an easy task because the survival rate for estate papers, which would be particularly useful in this regard, is low. An alternative method is available, however, as the operation of regional economies, and the progressive construction of cash-based economies, can be revealed by examining the development of formalised economic structures. It will be seen in this chapter that the growth of a formal economic order, principally through the establishment and scheduling of fairs and markets, created rhythms of economic life, which were regionally distinctive, and which were principally influenced by the main agricultural practices within the particular localities.

Agriculture, seasonality and money fluctuations

The first part of this study has considered the evolution of the human landscape of County Wicklow during the seventeenth and eighteenth centuries and examined the changing population-levels and the fluctuating denominational balances which were ultimately responsible for the constructing of that human landscape. This chapter will focus on a key feature of the interaction between the land and the people – the local economy. The course of Wicklow's economic change and development during the seventeenth and eighteenth centuries will be examined in the light of the population histories that have earlier been outlined. It will be shown that the establishment of a formalised economic order was viewed by the government as an essential step in the colonisation of Gaelic Ireland, and it will be further argued that the establishment of formalised trade structures was positively correlated with contemporary economic and social conditions. Perhaps the most reliable and detailed source for the study of the development of

early-modern economic orders is the 1852 report of the Commissioners appointed to inquire into the state of Irish fairs and markets, which assembled a considerable amount of data on economic conditions in the period before 1850. This report has been used extensively in this chapter.¹

Two key concepts, distinctive, yet closely intertwined, form the foundations upon which the analyses in this chapter are based. First, despite the various industrial changes which were discussed in chapter one as having occurred within the region during the eighteenth century, Wicklow remained essentially an amalgam of regional agricultural economies, supplying produce to the metropolis. As such, no consideration of economic developments can be undertaken without first considering contemporary regional agricultural practices and land usage. In chapter one, the substantial regional variations in the quality of the land within the county were considered, and presented a picture of fertile lands along the east coast, less fertile lands to the west of the uplands, in Talbotstown, and land of indifferent quality in Shillelagh and lowland Ballinacor (figure 10). It was also seen that this varying land distribution produced regional agricultural economies, with grain dominating along the east coast, grass dominating in Shillelagh and more mixed agricultural practices in the two Talbotstowns, to the west of the mountains, while the central uplands provide grazing pastures during the summer (figure 17).

Secondly, the level of economic activity was ultimately controlled by the availability of money, and one of the factors underlying the availability of money was the seasonality of the economy, which, in the case of Wicklow, was broadly determined by the seasonality of its agricultural practices. Philip Ollerenshaw has described the fluctuating amount of money in circulation as 'perhaps the most striking reflection of seasonal rhythms in the Irish economy', and although it is impossible to determine historical annual fluctuations in the availability of money just within Wicklow, evidence from elsewhere provides sufficient clarity on the subject.² In an essentially agricultural economy, the availability of money reflects agricultural outputs. Thus, within the English economy in the middle of the nineteenth century, Stanley Jevons, professor of Political Economy in Owens' College, observed that 'the currency generally, including bank notes of all our

banks, gold coin, and silver coin, expands from July to the end of October or beginning of November; it contract from the middle of November to the end of March, and is on the whole stationary in April, May, and June'.³ For Ireland, for the same period, J. W. Gilbart, six years a branch manager in the Provincial Bank,⁴ observed a similar trend, but one which was slightly delayed. 'Being purely an agricultural country, the lowest points will of course be in August or September, immediately before the harvest and the commencement of the cattle and bacon-trade. Then it rises rapidly till it reaches its highest point in January, and gradually declines'.⁵ Gilbart provides two other crucial pieces of information, too. First, he suggests that 'in seasons of distress the crops are brought earlier to the market', which implies that during periods of economic difficulties the money-market peak shifts to earlier in the year – 'in 1841 ... the highest point of the circulation was about January, but since the year 1845 [Gilbart's article is dated 1852], the highest point has usually been in November'. Secondly, Gilbart notes that the normal peak, occurring in January, was a recent phenomenon, and that the peak in the money cycle had previously occurred between October and December, thereby aligning with Jevons's English peak.⁶

In recent times, Philip Ollerenshaw has provided evidence for the circulation of money in Belfast, which confirms that peak money-levels were strongly influenced by the condition of the economy, but even despite these fluctuations, his suggestions for peak and trough money availability do not differ greatly from the contemporary patterns that were presented by Jevons or Gilbart. In particular, the trough in money-levels in Belfast consistently occurred in July, which will be shown to have impacted on the general level of economic activity.⁷

It was not, of course, just the agricultural economy that exhibited definite seasonal demands for labour, and seasonality was evident in most industries. The fishing season, important along the east coast, but particularly at Arklow, was governed by biological factors and by the climactic cycle, and in the 1810s Henry Bayly, the rector, noted that the herring industry there only provided employment opportunities during six weeks in early summer, and six weeks in late autumn.⁸ Thus, that region had an economic cycle which was uniquely different from the rest of the county, where agricultural seasonalities were predominant. Even

secondary economic activities were heavily influenced by seasonality, but one which was opposite to the seasonality of agricultural economies. Information on industrial wage-levels in the Wicklow region are scant, but the mean weekly wage bill for the reconstruction of Wicklow harbour, mentioned in chapter one, illustrates the typical seasonal fluctuations in the industrial labour market, with wages peaking during the summer and autumn months, and falling off during winter and spring. A rough guide to the general trends in the agricultural and industrial money cycles is presented in figure 75.

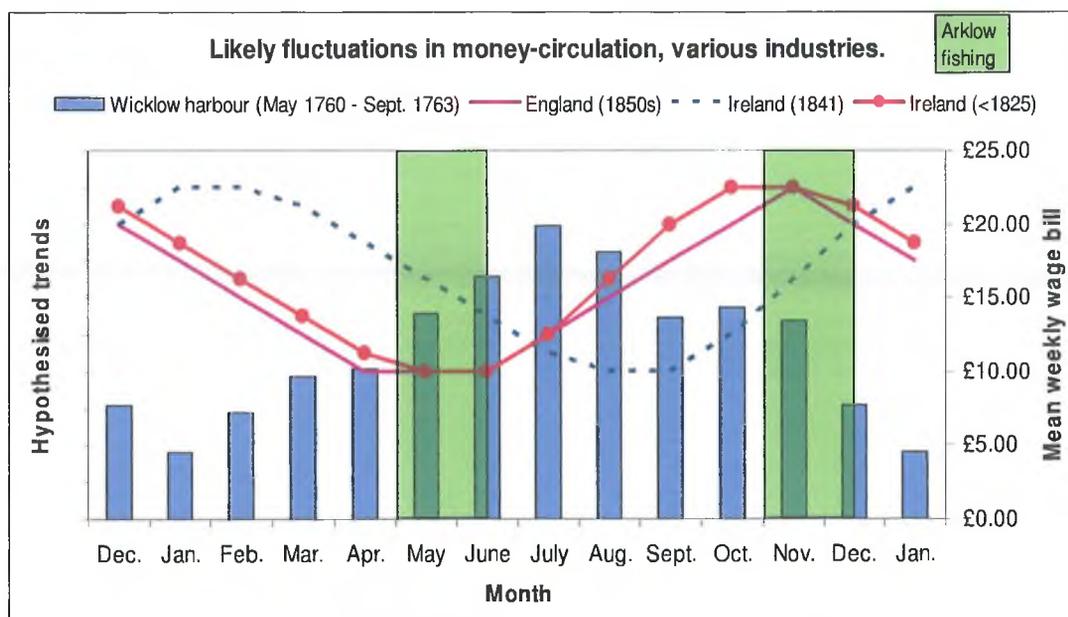


Figure 75 – Probable fluctuations in money-levels in various economies in Wicklow during the eighteenth century. Shown are the general trends for England in the 1850s and 1860s, the trend for Ireland in the 1840s and the Irish trend in the early part of the nineteenth century (which broadly matches the English pattern). Also shown is the mean weekly wage bill for Wicklow harbour reconstruction (May 1760–Sept. 1763) (source: Jevons, ‘The pressures in the money market’, p. 237; Gilbert, ‘Laws of currency in Ireland’, pp 317-8; *Commons’ jn. Ire.* (1796 repr.), vii, pp appendix lxxii-lxxv, ccxxxii-ccxxxiii); Mason, *Parochial survey*, ii, p. 55; for Belfast, see Ollerenshaw, *Banking in nineteenth-century Ireland*, pp 82-7).

Structured economies as a political weapon

Following the Nine Years War, sustained efforts were made during the opening decades of the seventeenth century to refashion Gaelic Ireland using social, political and economic moulds that had previously been cut for England. Fundamental to this were, on the political front, the expansion of the manor as a

unit of social administration and, on the economic front, the fostering of local market economies, through the granting of licences to establish fairs and markets. The immediate impact on the newly formed County Wicklow was limited, however, because, unlike the fashion in other parts, contemporary political circumstances in the Wicklow region saw the Gaelic clans retain possession of some of their territories, and much of their political and social influence.

In pre-industrial, rural societies, fairs and markets were important elements for the prosecution of commerce. They provided a catalyst for formalised trade and exchange, and were especially important in an urban setting, where many of the inhabitants were at some remove from the land, and may have been unable to obtain necessary provisions through other means. Neither was their impact exclusively economic; they fulfilled important social and political purposes too. This was particularly the case with the weekly market, which, because it attracted large bodies of people with appropriate regularity, provided the administration with the means to quickly communicate public policies to large sections of the community. Thus, royal proclamations, some of which were considered in the previous chapter, were 'proclaimed' at the market cross or at the site of the market by the constable or the sheriff, on market day, ensuring broadcast to the widest possible audience.⁹ These units of economic order were also viewed as an important element in the cultural colonisation of newly conquered territory, as is illustrated by the patent, which authorised Sir Henry Harrington to hold a weekly market and annual at Newcastle, then located within the bounds of County Dublin:

To Henrie Harrington, knt., his heirs and assigns, was granted, on 20th Nov., in the second year [of James I], licence to hold for ever at Newcastle, in Dublin, now Wicklow, co., a weekly Thursday market, and a fair on the vigil, day and morrow [i.e. three consecutive days] of St. John, being the 24th June, and the three days following; with courts of piepowder, and all profits, etc., thereto belonging, at a rent of 6s. 8d.- with intent that the inhabitants of said village, in the Birne's countrie, may have free commerce, by selling and buying merchandizes and other commodities, and may thereby be the easier reduced to a human and civill kind of life.¹⁰

It has recently been suggested that, within certain parameters, changing market densities within regions can be viewed as an 'index of changes in regional economic importance'.¹¹ Certainly, this seems logical, and if that thesis is accepted, then an examination of the various locations for formalised economic order within any region can be expected to provide a substantive view of the development of localised economies within that region. Thus, the periods of national or regional economic downturn and distress, which were identified in the previous chapter and considered in the context of their demographic implications, have a resonance for the study of regional economic developments too.

It is useful, at this stage, to note the distinction between markets and fairs, as 'in modern times the distinction between a fair and a market has been somewhat blurred'.¹² In fact, fairs and markets were of an essentially different character, and because of this, the type of goods and services provided by both, differed considerably. Markets were regular events, usually occurring on the same day every week and lasting a few hours or no more than one day, and presented the opportunity for buyers and sellers to trade everyday consumables. Thus, a market provided a means for the non-agricultural sector to acquire their meat, fish, vegetables, butter and eggs, and supplied secondary and tertiary industries – bakers, millers, innkeepers and the like – with their essential raw materials. Most markets were small gatherings, supplying goods and services to the immediate vicinity, although the larger ones operated as a clearing house for the agricultural or industrial produce of expansive regions.

A fair, on the other hand, was a more lavish, but less frequent, affair, which, lasted for two or more days, and attracted patrons from a much wider area than the regular weekly market did. During the early years of the seventeenth century, the typical fair-licence permitted the owner to hold fairs at most twice during the year, although by the middle decades of the eighteenth century they had become more frequent in many locations. The duration of fairs also changed over time, in response to economic and infrastructural developments. While medieval charters had often authorised eight or even fifteen day fairs,¹³ the fairs authorised by early-Stuart patents usually lasted for no more than three days. By the eighteenth century, however, with the continued evolution of economic

conventions, multi-day fairs had become uncommon, and most fairs, at least by the 1720s, lasted for only one day.

Fairs provided an enhanced opportunity for buying and selling larger goods and bulk produce, which were not available at the weekly market. Thus, livestock and larger quantities of grain and, with the developments in the cloth industry in south and west Wicklow, cloths, woollens and friezes could all be disposed of at the infrequent fair. It will be seen, too, that the timing of fairs was intimately reflective of agricultural and industrial practices in the locality, and after about the middle of the eighteenth century specialist fairs began to emerge, presumably in response to the improvements in infrastructure which were discussed in chapter one, which attracted merchants from a wide catchment area. Outside the economic sphere, novelty attractions, such as peddlers, fortune-tellers and circus performers, also attended, and these, coupled with the wide availability of liquor and a general air of celebration, all augmented the popularity of the fair. In essence, therefore, in terms of the goods traded, fairs typically supplied raw materials, or bulk or unprocessed goods, while consumer markets supplied smaller quantities of produce, or finished goods.

The early development of trade and exchange in Wicklow

Although licences for fairs and markets pre-dated the seventeenth century, they did not become commonplace until they were required, as a lynchpin of the sustained efforts of government in the aftermath of the Nine Years War to exercise enhanced social control over traditionally Gaelic strongholds. A central element in this colonization was the establishment of a structured economic order, under which permission to establish formalised mechanisms for commerce and trade was granted by the king to newly appointed local lords, who were then permitted, on payment of an annual charge, to organise and regulate the events, for personal profit. In Wicklow, however, only a handful of new fairs and markets were patented for the county at this time (tables 52 and 53), and all but one of these avoided the Gaelic uplands; during James I's twenty-two year reign, patents for fairs and markets were granted for only five sites in the county – at Newcastle and Cronroe, in the east, Corballis, near Rathdrum (for a fair only), on the margins of the uplands, Carnew in the south (received two patents) and at Baltinglass in the

west.¹⁴ The distribution of these sites highlights the political qualification required for receipt of a patent to hold a market or fair (figure 76). All but one of the centres lay within territories that had recently been dispossessed, and each was of primary strategic importance. Newcastle, attacked and burned in 1598¹⁵ and subsequently recaptured, was the first Wicklow town to receive a patent under James I (before the county had been established), Carnew, in the recently dispossessed Shillelagh, was the only urban settlement of any substance in the south of the county, and Baltinglass, previously owned by James Eustace, Viscount Baltinglass, had been seized by the crown following his attainder.¹⁶ The exception was Corballis, which lay within lands that had remained under the control of the O'Byrnes, but this was by virtue of a pardon and grant from the king, rather than any manifestation of political independence, and contained strict conditions that 'neither he, his heirs nor assigns, shall demand conney, liverie, cesse, cuddye, or other irish exaction'.¹⁷ Wicklow town was also granted its first charter under James I, and although that charter did not, as was reasonably typical, specify the details of markets or fairs, it did appoint a clerk of the market, so one must have previously been in operation.¹⁸

Table 52 – Markets and fairs authorised, by patents of James I (see appendix 34 for similar patents for surrounding counties) (source: *Cal. pat. rolls Ire., Jas I*, pp 39, 90, 255, 325, 342, 362, 447).

Location	Market day	Fair day	Days	Date of patent
Newcastle	Thursday	St John's Eve	3	20 Nov 1604.
Corballis	No market authorised	St Michael's Day	2	26 March 1606.
Wicklow		First charter granted		30 March 1613.
Carnew	Thursday	Thurs. after 11 Aug.	3	1 July 1617.
		Thurs. after All Saints	3	
Baltinglass	Saturday	24 June	3	24 September 1617.
		24 August	3	
Carnew	Thursday	Thurs. after 1 Aug.	3	28 March 1618.
		Thurs. after All Saints	3	
Cronroe	Thursday	Michaelmas	2	20 Oct 1619.

Of course, this handful of commercial centres cannot represent the limits of organised economic activity in County Wicklow during the first quarter of the seventeenth century. First, trade and exchange are fundamental events in most organised human societies, and become increasingly important as economic specialisation advances. This is particularly the case in urban areas, where the

local population's links with the land are weakened. In a study of price-setting in medieval English markets, R. H. Britnell has described the formation of markets as 'one of the most predictable features of urban life, at almost any time or place', and the noted anthropologist, Lévi-Strauss, has described markets as 'one of the foundations of civilisation'.¹⁹ In fact, the requirement for trade and exchange is so fundamental, that the commissioners appointed to inquire into the state of fairs and markets in Ireland in 1852 reported the evolution of impromptu markets to satisfy demand in the absence of authorised formal commercial structures,²⁰ and William Hardinge, in a letter to the same commission, noted that the earliest markets were not 'sprung from any licence by grant under the Great Seal, or otherwise, by the Crown of England; but to have originated in the necessity of the times, and with the sanction of the chief lord of the territory'.²¹

Secondly, markets had been a feature of Irish economic order at least since the arrival of the Anglo-Normans, and some towns had previously been granted permission to host markets or fairs, in ancient charters. Thus, for example, Walter de Ridlisford was authorised to host a weekly market on Thursdays 'in his vil of Bre [Bray]' and the archbishop of Dublin was similarly permitted to host a Saturday market at Stagunnild (Stagonil, or Powerscourt), in the early years of the thirteenth century.²² Patrick O'Connor has identified ten potential medieval market sites in the county – primarily located in the eastern part – and a further fifty-seven in the surrounding counties of Carlow, Kildare, Wexford and south Dublin.²³ Although it is doubtful that many of these ancient markets would have been organised continuously, some locations, including Bray, Arklow and Wicklow, remained steadfast as important economic centres, principally by virtue of their strategic location, along primary routes towards Dublin, and, in the case of the latter two, because of their access to wider horizons, through their small harbours. For territories remaining under Gaelic control in the seventeenth century there is little surviving evidence to indicate how and when markets were conducted, but, by nature of Britnell's or Lévi-Strauss's arguments, some structures for formalised trade probably existed. This was certain to have been the case at Glendalough, at least, which remained outside Government control until the confiscations of the mid-seventeenth century. The site had been awarded a charter to host a market

during the 1220s,²⁴ but an annual patron, which was accompanied by a secular fair, continued to operate until the 1860s, before being swept aside by the Catholic Church's drive for modernisation and centralisation.²⁵

Table 53 – Markets and fairs authorised, by patents during first eight years of reign of Charles I (source: *Cal. pat. rolls Ire., Chas I*, pp 145, 148, 192, 251, 339, 422, 603).

Location	Market day	Fair day	Days	Date of patent
Bray	Tuesday	St Martin	1 ?	3 May 2nd.
		Ss Philip & James	1 ?	
Baltinglass	Thursday	Feast of Ascension	1 ?	10 March 2nd.
		St Luke	1 ?	
Castleruddery	Thursday	1 May	2	16 August 3rd.
		31 October	2	
Carysfort	Thursday	Whit Monday	2	Specified in the charter, dated 23 August 4th.
		All Hallowtide	2	
Glencap	Not specified	2 fairs, but dates not specified.	Not specified	8 May 4th
Rathsallagh	Saturday	St Bartholomew	2	12 July 8th.

The operation and development of the market in the nineteenth century

Since markets were regular, but more mundane, events than fairs, they are a suitable tool for adjudging the day-to-day differences in economic order between various regions. Figure 76 shows the geographical spread of the known market centres, authorised by patent or otherwise established, for the Wicklow region before the nineteenth century, and the market centres that were still functioning in the post-Famine period. A number of points are evident. First, the importance of economic organisation to the English colonisation drive is evident, and the swift construction of a formalised economic order, based on common law is especially noticeable in south Wicklow and north Wexford, where a high concentration of markets (and fairs) were authorised, to facilitate an economic revolution in the region in the earliest decades of the seventeenth century. In County Kildare, by contrast, which, centuries earlier, had been brought under the control of central government, some ancient market centres, such as at Kilcullen (established in 1403), Athy and Kildare (1515) and Naas (1569), had continued to operate into the mid-nineteenth century.²⁶ It is worth noting, too, that in most cases, when markets were sanctioned by patent permission was also given for the hosting of one or

more fairs, although this was not always the case, and in many instances, fairs were authorised on their own, without the accompanying market.

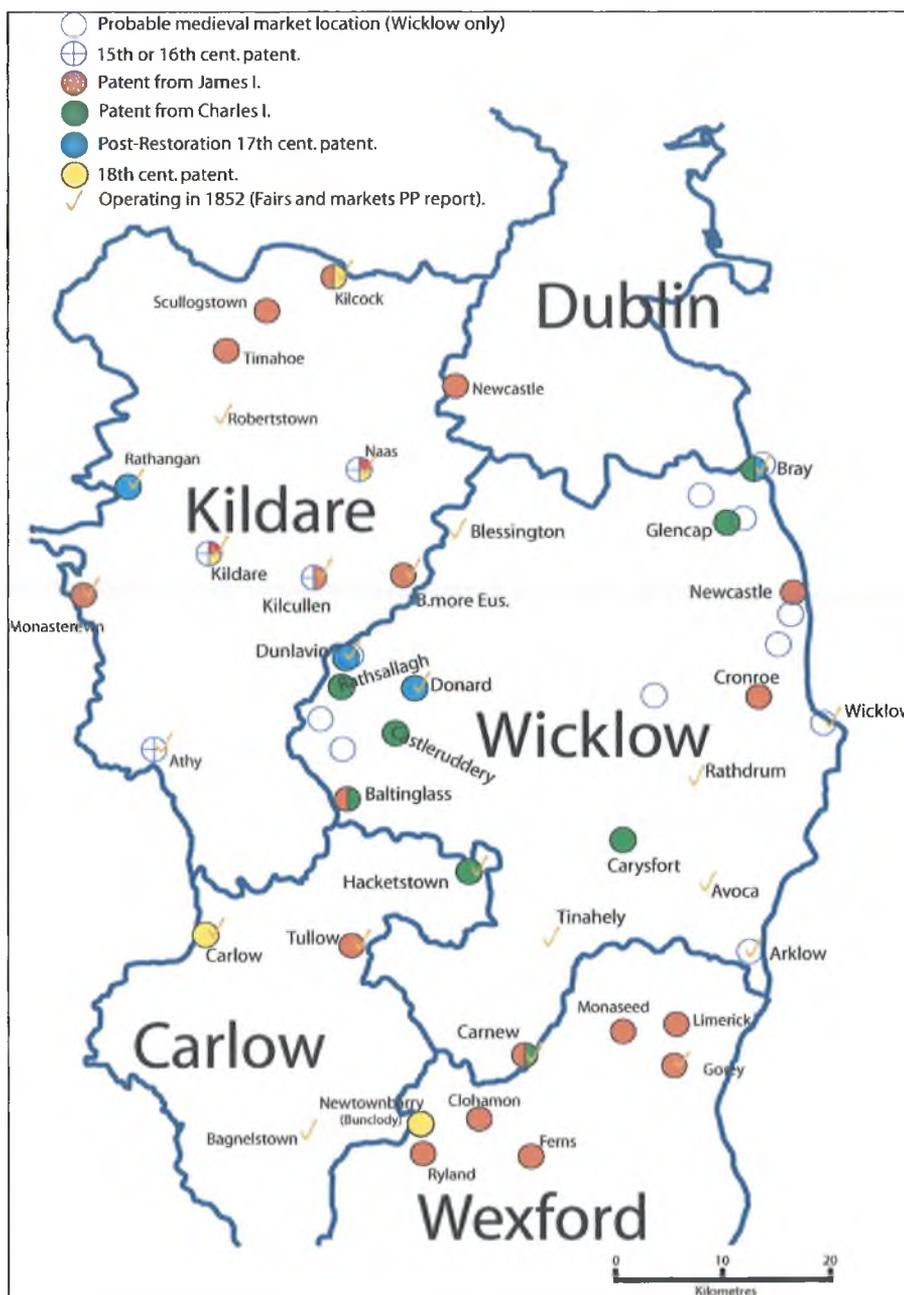


Figure 76 – Early market formation in the greater Wicklow region before the nineteenth century. The plantation of Wexford had required the establishment of a number of markets in the north of the county.

Because of their differing nature and emphasis, the catchment areas for fairs tended to be wider than those of the typical market. In an extensive study of the operation of markets in medieval England, Christopher Dyer has noted that the median distance travelled by suppliers and customers of markets – its ‘sphere of influence’ – was between 8 and 12.5 kilometres.²⁷ In a detailed study of the operation of fairs and markets in the Irish context, Patrick O Connor has suggested that ‘Irish buyers and sellers certainly travelled further’,²⁸ although he also presents contradictory evidence for east County Cork, where even five kilometre radii around each market town – ‘easy walking distance’ – produces extensive overlap of the spheres of influence.²⁹

An estimate of the probable maximum extent of the catchment-boundaries for markets in a region can be calculated by halving the distance between neighbouring market centres, and presuming that populations will frequent their closest market. For example, if two markets are ten kilometres distant, then the catchment bounds for both centres are probably unlikely to have much exceeded about five kilometres. It should be borne in mind, however, that the typical market, unlike the fair, was a single-day event, and thus, one should be less concerned with the overlapping hinterlands of neighbouring markets, but with the overlapping hinterlands of markets that occurred on the same day. Two proximate markets, occurring on the different days, could be viewed as competing entities for the custom of a population, but equally may have been providing potential customers with supply-choice. In other instances, specialist markets may have been located proximate to other markets, and yet provided no competition, or choice.

Figure 77 shows the location and day of markets which were reported to be in operation in the greater Wicklow region in 1852 by the Commissioners for Fairs and Markets. Each market centre is ringed by a hinterland of ten-kilometres (crow-flies) radius, which, based on Dyer’s evidence, likely contains a considerable majority of the customers for most markets, particularly when it is considered that the real distance from the margins of a hinterland exceeded the ‘crow-flies’ distances, in some cases by substantial margins. As can be seen, overlaps between the prospective hinterlands of markets are common, but overlaps

between markets occurring on the same day are rarer, particularly along Wicklow's east coast. West of the uplands, which contained a greater number of medium and large urban settlements, most of which hosted their own market, overlapping hinterlands are more common, especially in eastern Kildare and western Wicklow. Along the east coast, most of the same-day overlaps occur at the extreme margins of the hinterlands, such as between Wicklow and Avoca, or between Rathdrum and Arklow, so the distance travelled from these boundaries to the market towns would have exceeded the hypothetical 'easy walking distance' ten-kilometres of travel. In fact, the only market systems with considerable overlap in the greater Wicklow area are those of Ballymore Eustace (east Kildare) and Dunlavin (west Wicklow), where markets were held on a Wednesday, and of Bagnelstown (Carlow) and Newtownbarry (Bunclody, in north-west Wexford), where markets were held on Saturday. Overlap also occurred on Thursday, between markets at Blessington, in west Wicklow, and at Naas and Kildare town. In these three instances (Ballymore Eustace/Dunlavin, Bagnelstown/Newtownbarry and Naas/Kildare/Blessington), the prospective hinterland boundaries (ten-kilometres) of one market encompassed the neighbouring market town, and in the region bounded by Kildare town, Naas, Blessington and Dunlavin, customers were spoiled for choice, with seven markets occurring each week, five of which were held on either Wednesday or Thursday.

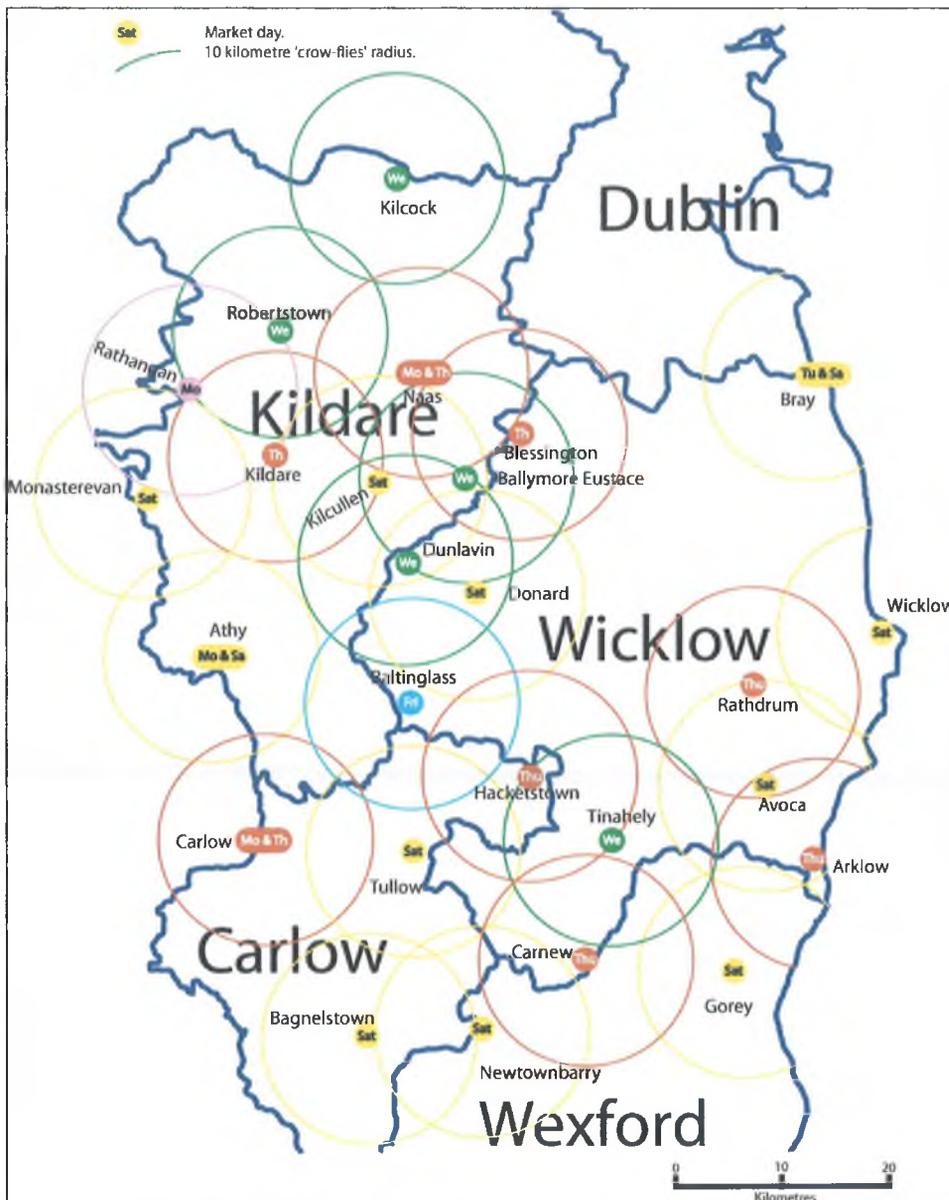


Figure 77 – Catchment limits, for markets in the greater Wicklow region, which were operating in 1852, presuming a limit of 10 kilometers on the likely distance travelled (source: *Report of commission appointed to inquire into fairs and markets*, pp 43-5).

Superficially, these overlapping hinterlands appear to suggest that the typical market in the mid-nineteenth century had a smaller catchment limit than the hypothesised ten-kilometre limit, but the actual situation is more complex. The Naas/Kildare/Blessington system will be considered below, where it will be shown that the Naas market operated at a different economic level to the other two markets – whereas Naas supplied goods into the provincial, national and

international markets, Kildare and Blessington had a more limited, local appeal, so Naas was less a competitor of Blessington or Kildare, than it was of the other regional markets in the area. A similar circumstance governed the Bagenalstown/Newtownbarry market system. Bagenalstown, described by Samuel Lewis as a 'place of considerable trade, and is rapidly rising into importance', had only belatedly become a market town by 1852.³⁰ Two centuries previously, the north-Wexford region had been the focus of an enthusiastic plantation drive and a considerable number of markets had been established in the region (figure 76), but most of these had subsequently failed. Hence, by the 1830s, Samuel Lewis described the market at Newtownbarry as 'one of the best attended in the south of Ireland, there being no other within ten miles of it'.³¹ Supply and demand interactions necessitated the establishment of another market, and Bagenalstown, the most populous town in the region, and strategically positioned on the mail-coach road to Dublin, was the obvious candidate.³² Lewis's mention of ten-mile (sixteen kilometres) catchment zone around Newtownbarry devoid of any other market towns is significant, suggesting that a market's sphere of influence in the early nineteenth century must have been less than ten kilometres.³³

Market competition was likely also a factor in the Dunlavin/Ballymore Eustace system. Both had been early recipients of patents – Ballymore Eustace in 1608 and Dunlavin in 1662 – but Ballymore Eustace went into decline in the latter decades of the eighteenth century, when the main road to Dublin was diverted westwards, through Kilcullen.³⁴ Declining fortunes resulted in the abandonment of the market for an extended period, before it was revived again about 1830.³⁵ Notably, by the 1830s, a principal commodity in both of these markets was grain, although the strategic limitations of their respective geographic locations – both of them were on the same road – probably ensured that both had little more than local appeal.

The day on which markets were held also merits consideration, because it can provide evidence for the operation of regional economic linkages. Markets were not legally permitted on Sunday³⁶ although they were not unknown.³⁷ By the middle of the nineteenth century Saturday was the most popular market day, in the Wicklow region, with eleven of the thirty markets in the area occurring on that

day. Mid-week markets were also popular, with five and eight markets respectively held on Wednesdays and Thursdays. In total, four out of every five markets were held on any of these three days. Wicklow was not particular in this regard, as similar circumstances pertained throughout the island. Figure 78 shows the proportionate number of the 399 markets listed in the 1852 fairs and markets report held each day, for the various provinces and for the greater Wicklow region. In the following chapter it will be shown that Wednesday and Thursday were typically the most popular non-weekend days for baptismal and marital celebrations in Wicklow, and that this was particularly the case in urban areas (figures 132, 151, 152). It seems feasible, therefore, that these coincidences complemented each other, and that the extra money that was in circulation on market day helped fuelled these social celebrations.

Four of the thirty markets in the greater Wicklow region were held on a Monday, a higher proportion than in any other region, except Ulster. The reason for this is unclear, but three of these markets occurred in larger towns (Athy, Carlow and Naas) which hosted two markets each week. In only one centre, at Rathangan, in west Kildare, was Monday the sole market day.

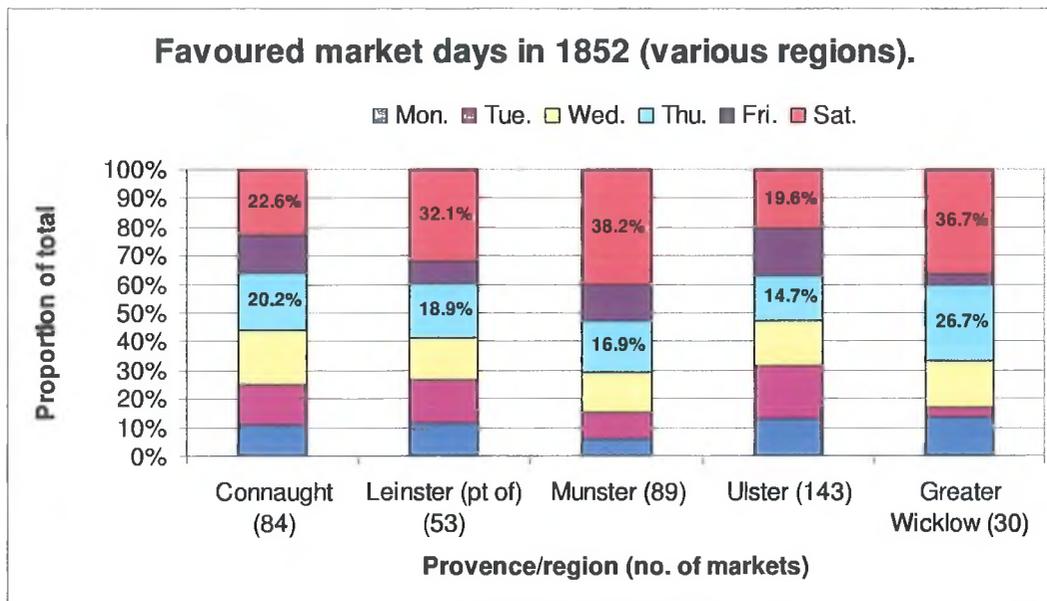


Figure 78 – The proportion of all markets in 1852 occurring on each day of the week. Greater Wicklow comprises Wicklow, Wexford, Kildare, Carlow and south Dublin and Leinster (pt of) comprises the remainder of the province (source: *Report of commission appointed to inquire into fairs and markets*, pp 43-5).

Since markets were supposed to be held under the authority of a patent, the distribution of market-days in the mid-nineteenth century should reflect similar historical daily-distributions, but was not the case. A thorough examination of the patent rolls of James I revealed 363 grants for markets in Ireland, of which the daily distributions are shown in figure 79. In these earliest patents Saturday remained the most popular market day throughout the island (22 per cent of total), but Tuesdays and Thursdays were also popular. In greater Wicklow, however, only one third of the twenty markets established under James I were authorised for a Saturday, while 43 per cent were to be held on Thursday.

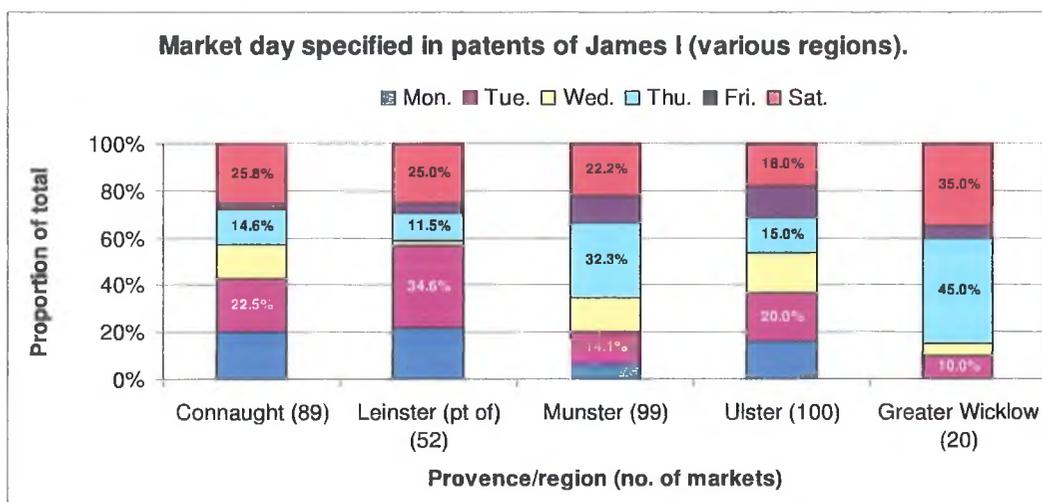


Figure 79 – The proportion of all markets held on each day of the week, as specified by patent during reign of James I (source: *Cal. pat. rolls, Jas I*).

It could be justifiably argued that the datasets summarised by figures 78 and 79 are of a fundamentally different nature. The 1852 dataset represents markets that operating at that time, whereas the dataset of markets authorised by early Stuart patents only represents markets that were authorised to be held. Of the twenty markets patented for the greater Wicklow region under James I, only eight had remained in operation by 1852. Patents were, of course, reflective of local and national administrative aspirations rather than accurate barometers of localised socio-economic activities, and some of these markets may never even have been established.³⁸ For a market to commence, it required not just official authorisation, but also the patronage and support of the local lord. Nonetheless, it seems fair to presume that most would have operated, at least for some period of time, and that the daily distribution of markets in the patents probably reasonably reflects the rhythms of weekly economic activity in the period before 1641.

There was a strong bias operating to favour the reinforcement of Saturday as the pre-eminent market day in greater Wicklow, with the passage of time – this was the gradual process of urbanisation, which was outlined in chapter two. Under the Jacobean patents, Saturday was the favoured market-day in urban areas, whilst mid-week days, particularly Thursday, predominated in the countryside. Examples of this can be seen at Tullow, Gorey, Baltinglass and Monasterevin, all

of which hosted Saturday markets, whereas Thursday markets were authorised in the minor settlements of Newcastle, Ballyhack, Scullogestown and Cronroe. The reason for temporal sequencing is unclear, but it is probably not coincidental that agricultural provisions, purchased in predominantly rural regions on weekdays could be transported to the towns for resale at the weekend. While this delineation was not rigidly adhered to,³⁹ the creeping urbanisation of the preceding 250 years (highlighted in chapters one and two) and the rapidly improving communications infrastructure during the eighteenth century would have operated to boost attendance at the larger urban markets to the detriment of their rural competitors. Thus, of the eight greater-Wicklow markets patented under James I that had survived until 1852 (appendix 35), five were held on a Saturday, whilst of the nine markets patented for Thursday, only one, at Carnew, continued to function in unmodified form and one other, at Enniscorthy, had expanded to a bi-weekly event, held on both Saturday and Thursday. Six of the nine Thursday-markets had failed by 1852, but only two of the seven Saturday markets had suffered a similar fate.⁴⁰

Another notable feature of the distribution of markets in the nineteenth century (figure 77) is the general absence of markets in the vicinity of Dublin. In north-east Wicklow, for instance, there was only one market location, at Bray, lying to the north of Wicklow town, and the hypothesised ten kilometre catchment areas for the markets at Bray and Wicklow do not overlap. There are two reasons for low market density in this heavily populated area. First, the proximity of the retail system at Dublin supplied goods and services that were elsewhere available only through the market. Within Dublin County, the 1852 report records only one surviving market – a grain market at Balbriggan, in the extreme north of the county⁴¹ – and Bray, located about fifteen kilometres from the metropolis, was the closest market-location to the capital, and was easily accessible by good quality roads. Demographics also played a part. The area was primarily rural, so as the heyday of the rural market passed, then market penetration contracted to just the two principal urban centres in the region, at Bray and Wicklow. During the seventeenth century, various markets had been authorised for the region between Wicklow town and Bray – at Kilcoole, Newcastle, Newtownmountkennedy and

Cronroe⁴² – but by 1760 only Newtownmountkennedy had retained its market,⁴³ and by the end of the century even that market had succumbed in the face of economic modernisation.⁴⁴

While a ten-kilometre (or less) catchment-limit may have applied to most markets, some of the larger markets developed as important cogs in the supply chain to Dublin and beyond. Within the greater Wicklow region, four sites – Bray, Naas, Athy and Carlow – uniquely hosted two markets during the week by 1852.⁴⁵ These towns were among the largest urban conurbations in the region, and it seems certain, given their distributed geographic locations and the demographic make-up of their hinterlands, that their markets were operating as regional distribution centres, with extended catchment areas, untypical of most markets at that time, although Athy's retail was 'materially injured by the existence of a turnpike'.⁴⁶ By the 1830s, for example, Bray's market was 'abundantly supplied with provisions of every kind of the best quality', and at Athy, the market, 'in addition to an ample supply of corn, is well furnished with meat, poultry, butter and other provisions'.⁴⁷ Some centres were also feeding a wider population, such as Bray which was providing trout for 'Dublin, and different parts of the country, and even to London', Carlow, which had 'become the principal mart for the agricultural produce of the well-cultivated districts around it', and Naas, which provided 'an abundance of poultry, which is sold in large quantities for the Dublin market'.⁴⁸

Bearing in mind the wider customer base of markets in larger urban areas, comprised of both the local populace and visiting merchants, it seems likely that centres such as Athy, Bray, Carlow and Naas were operating at higher levels of commercialisation that were the smaller, more localised markets. These four locations were all favourably situated for trade, and all were located either on canals or on post-road routes to Dublin. Additionally, their markets were usually held on different days, thereby providing additional consumer choice. This idea is further reinforced if the principal urban centres in the south-east are considered (table 54). Thirty-eight towns in Counties Carlow, Kildare, Wexford and Wicklow boasted populations of 500 or more in 1851, eleven of which had populations of 2,900 or more.⁴⁹ Seven of these eleven largest towns hosted two markets during

the week, but none of the remaining twenty-seven urban centres held more than one weekly market. Furthermore, all of the eleven largest towns held at least one market during the week, but three of the ten towns with a population between 1,000 and 2,900 were not market centres, including Celbridge, with a very substantial population.⁵⁰ In the smaller urban centres a population of 1,000 or more appears to have approximated to the 'critical mass' for a market, as seven of the seventeen towns with between 500 and 1,000 inhabitants were not market centres.⁵¹

Table 54 – Market days for principal urban centres in greater Wicklow, 1852.

Grouping	Urban centre	Population, 1851	Market day(s)
5,000-10,000	Carlow	8,687	Mon. & Thu.
	New Ross	7,034	Wed. & Sat.
	Wexford	6,423	Wed. & Sat.
	Enniscorthy	6,000	Thu. & Sat.
1,000-5,000	Athy	3,845	Mon. & Sat.
	Arklow	3,300	Thu.
	Bray	3,152	Tue. & Sat.
	Gorey	2,973	Sat.
	Naas	2,971	Mon. & Thu.
	Tullow	2,963	Sat.
	Wicklow	2,946	Sat.
	Celbridge	2,893	No market
	Bagenalstown	2,256	Sat.
	Maynooth	1,619	No market
	Baltinglass	1,572	Fri.
	Newtownbarry	1,307	Sat.
	Kildare	1,298	Thu.
	Leighlinbridge	1,292	No market
	Kilcock	1,164	Wed.
	Taghmon	1,082	Mon.
Rathangan	1,004	Mon.	
500-1,000	Monasterevin	996	Sat.
	Kilcullen	985	Sat.
	Carnew	982	Thu.
	Rathdrum	947	Thu.
	Newbridge	934	No market
	Leixlip	832	No market
	Hacketstown	790	Thu.
	Dunlavin	757	Wed.
	Borris	720	No market

Grouping	Urban centre	Population, 1851	Market day(s)
	Newtownmountkennedy	717	No market
	Camolin	713	No market
	Ballymore Eustace	673	Wed.
	Castledermot	666	No market
	Ferns	637	No market
	Robertstown	600	Wed.
	Tinahely	562	Wed.
	Blessington	555	Thu.

Source: the 1851 figures are from *Census Ire., 1851*, pp 1-14, 51-78, 103, 246, 291-335, 341-65. These figures are just include those who were habitually resident in towns and exclude additional populations, arising from the presence of public buildings, such as gaols, hospitals, workhouses or colleges. Thus, for instance, Carlow's total population included an additional 2,318 who were variously recorded in the census in the workhouse, lunatic asylum, goal, infirmary and fever hospital, and Maynooth's total population was 2,721, which included an additional 582 people living in the college. The market days are from *Report of commission appointed to inquire into fairs and markets*, pp 43-5.

It is clear, therefore, that as urbanisation progressed the development of regional economies, based on the primary urban centres, was being fostered, although the ability of a town to support a market depended on other factors also. The geographic location of the three towns with populations exceeding 1,000 people that did not host markets is worth considering. Two of them – Maynooth and Celbridge – are located in the extreme north-east of County Kildare, which, during the 1780s and 1790s, was linked by canal to Dublin.⁵² The absence of markets at these locations provides further evidence for the contention that proximity to the retail system of Dublin reduced the necessity for market-orientated economies. Leighlinbridge, with a population reported in the 1851 census of almost 1,300, was bigger than many market towns and had a large enough domestic population to support a local market, but its location, close to the larger urban centres of Carlow town and Bagenalstown, with its new market, probably nullified its demographic advantages. It merits note that larger towns not hosting markets were a belated development, and may have been precipitated by the Famine, since Lewis, in the late 1830s, records markets at Celbridge, Leighlinbridge (biweekly) and Leixlip, and *Slater's Directory*, for 1846, notes markets at Maynooth, Leixlip, Celbridge, all of which had ceased by 1852.⁵³

The correlation between conurbation-size and the number of markets held per week is important, as it indicates the likely customer-base of the typical

market (figure 80), by the mid-nineteenth century. If rural dwellers were regular attendees of markets, then weekly or biweekly markets could be reasonably expected in smaller urban centres with densely populated hinterlands, but, as has been seen (table 54), this was not the case. Since biweekly markets were the norm in the largest towns in the region but were absent in towns of less than 3,000 inhabitants, and considering that markets were less common in towns of less than 1,000 inhabitants (figure 80) than in larger settlements, then it can reasonably be concluded that a primary customer-base for all markets, at least by the middle of the nineteenth century, was the urban dweller. This, of course, explains the failure of a large proportion of centres that received patents for markets in the first half of the seventeenth century. Most of those patrons were granted licences for markets in the expectation that they would encourage the development of concentrated urban centres within their newly incorporated manors, but when these urban centres failed to develop then the patented market became unnecessary, although many continued to host occasional fairs. Bearing this in mind, therefore, it seems highly probable that the vast majority of the markets that were licensed for rural areas at the outset of the seventeenth century either did not begin to operate, or else quickly failed

In the Wicklow context, examples of failing urban centres can be seen in the case of Stratford and Ballymore Eustace. The case of Ballymore Eustace, in which the market was terminated following the diversion of the post road away from the town, has earlier been noted,⁵⁴ but Stratford's failure was more spectacular. In chapter one it was seen that Stratford had briefly blazed spectacularly across Wicklow's demographic firmament, but by the 1830s the town was in terminal decline. For a period, the town had been substantial enough to support the holding of bi-weekly markets 'to which the farmers sent potatoes. The butchers of Donard brought meat',⁵⁵ but a rapid decline in the town's economic fortunes precipitated a matching collapse in the town population, from approximately 1,000 inhabitants in 1821, to less than a quarter of that number by 1851.⁵⁶ Unsurprisingly, therefore, by the time of compilation of the 1852 fairs and markets report the town's twice weekly market had been terminated – 'thus fell Stratford – no more markets'.⁵⁷ Bearing these failures in mind, the high rate of

attrition amongst the earliest markets is unsurprising, particularly considering Patrick O’Flanagan’s suggestion that most of the markets authorised in the period between 1600 and 1650 were located in settlements containing between just 20 and 130 adults.⁵⁸

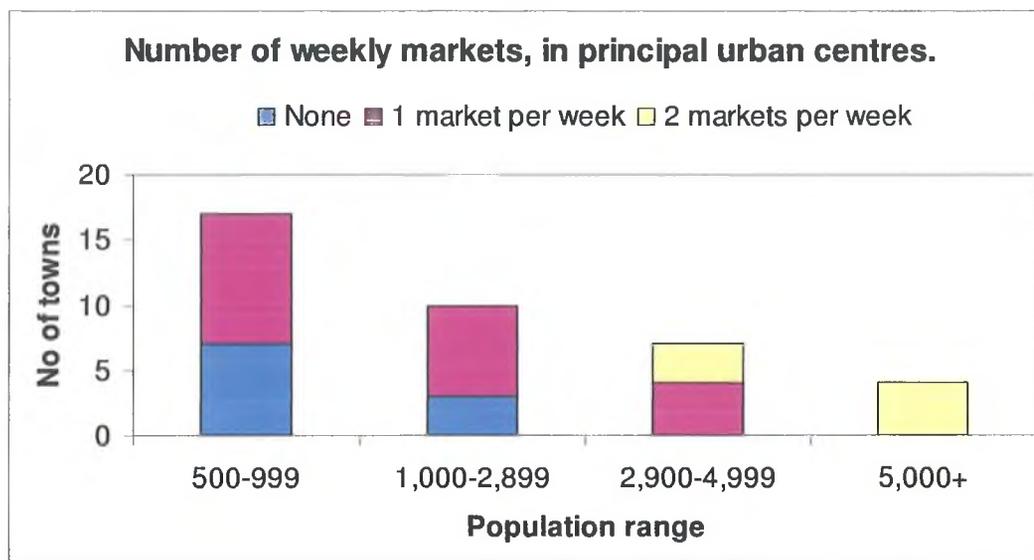


Figure 80 – Market centres in the principal urban centres (>500 people in 1851 census) in Carlow, Kidare, Wexford and Wicklow, showing the number of markets held per week (source: *Census Ire., 1851*, pp 1-14, 51-78, 103, 246, 291-335, 341-65; *Report of commission appointed to inquire into fairs and markets*, pp 43-5).

So if, as seems certain, the principal customers for market-produce were in the non-agricultural sector then this casts important light on some of the characteristics of the pre-industrial market and on pre-industrial society in general. First, it would seem doubtful that the catchment area of the typical, local market was as extensive as the ten-kilometre distance that was hypothesised earlier.⁵⁹ Rather would it have been more likely that the vast majority of the customers at most markets lived either in or near the town in which the market was held, although occasionally, untypical circumstances, such as shortage or distress or the seasonal outputs of the agricultural cycle, may have expanded the catchment area beyond its normal general bounds. At Kildare, Lewis notes that trade was broadly limited to that required ‘for the supply of the neighbourhood’, and at Rathdrum, with the termination of the monthly flannel market, the market had also become more locally focussed.⁶⁰ The catchment area for suppliers of produce to the market may have been larger – ten kilometres, or three hours walk, does not seem

excessive – and must also have expanded and contracted in line with the regular respirations of the agricultural seasons and the irregular jerks of the economic pendulum.

In the larger urban centres, such as Bray, Wicklow and Arklow in the east, and Carlow, Athy and Naas in the west, the catchment-area appears, at least by the nineteenth century, to have been considerably more expansive, often attracting buyers from Dublin, or elsewhere. The improvements to the transport infrastructure in the latter half of the eighteenth century, outlined in chapter one, further promoted the development of urban markets. To the east of the mountains, these infrastructural improvements were largely confined to upgrading the road system and modestly improving the harbours at Wicklow and Arklow, while further to the west, the development of the enhanced canal infrastructure brought areas such as western Kildare closer to the Dublin market. Improved infrastructure could also operate to restrict trade, however, as appears to have been the case at Carlow, where trade with Dublin was reputedly curtailed by the heavy tolls chargeable on canal traffic, thus diverting that town's trade southwards, during the 1810s and 1820s, downriver, along the Barrow, to the sea at Waterford, and from Naas, it was considered cheaper to transport goods by road rather than by canal.⁶¹

The weight of evidence suggests, therefore, that, by the middle of the nineteenth century at the latest, the market system in the Wicklow region had evolved into a two-level hierarchy, with a few centres, either because of the natural size of their domestic populations or because of their strategic location on arterial infrastructural highways, attracting buyers and sellers from wide areas, whilst the majority of markets pandered to the more mundane demands of the smaller populations within their immediate hinterlands. This, of course, suggests that the catchment limits for the typical, small-scale, local market, at this time was probably closer to five kilometres than to the ten-kilometre limit presumed earlier, and means that most of the overlaps between prospective market hinterlands, which appeared likely based on the presentation in figure 77, effectively disappear. Figure 81, shows these reduced market spheres around most markets, except those which were either served by a swift communications network towards Dublin and the wider world, or where the domestic population exceeded

2,500 people. Most of these market centres, by virtue of their strategic location or demographic advantages, were likely to have extended catchment areas, perhaps reaching or even exceeded O'Connor's the hypothesised ten-kilometre sphere of influence. It seems likely that the prospective market hinterlands presented in figure 81, therefore, rather than the crude representation of catchment areas shown in figure 77, more accurately represent the actual historical situation, although some centres may be unjustly exalted.

It is notable, however, that large geographic areas lie outside the hypothesised market catchments. The termination of the market at Newtownmountkennedy, for instance, had left wide areas between Bray and Wicklow without a local market, and some modest-sized population centres, such as Roundwood, Aughrim, Macreddin and Ballinderry, lay outside any regular market catchments. Of course, the absence of markets in the east, between Bray and Wicklow, lends further support to the suggestion that the demand side of the market system was driven almost exclusively by urban inhabitants, because had this not been the case, markets would have been operating to fulfil demands stemming from the substantial, but primarily rural, population along the east coast.

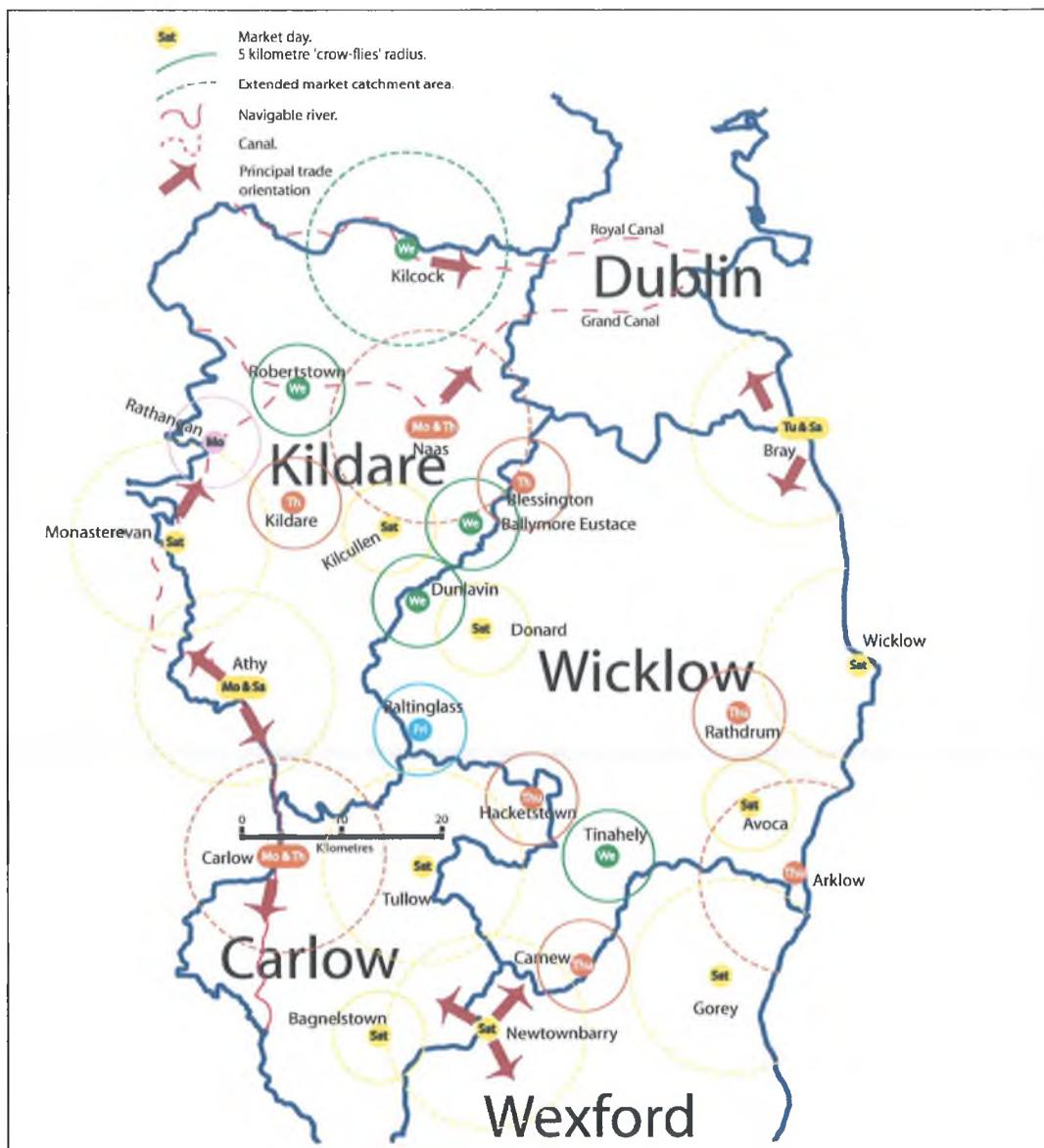


Figure 81 – Likely catchment limits, for markets in the greater Wicklow region, presuming a limit of 5 kilometers on the smaller markets. The dashed lines surrounding the larger markets indicate a wider catchment area rather than an attempt to portray the actual geographical limits of the markets’ hinterlands.

Notes: The Royal Canal had opened to Kilcock by the mid 1790s. The Grand Canal had earlier reached Robertstown in 1784 and the southern branch opened to Monasterevin in 1785 (Delany, *Grand Canal of Ireland*, pp 30, 32). Based on the arguments presented above Rathangan and Robertstown should have extended catchment areas, but these markets are known to be of limited size.

The operation of the market before the nineteenth century

Information on market developments and developments in regional market-economics in the period between the early-seventeenth and mid-nineteenth centuries is less plentiful. As has been noted, the early seventeenth century saw the ambitious promotion of market towns in confiscated territories, but most of these markets ultimately failed. Under James I, seven markets were created in the south-Wicklow/north-Wexford region and a further two were authorised along the north-eastern coast of the county, between Bray and Wicklow. While the period during which most of these markets operated is unknown, by the nineteenth century only two of these nine locations – at Carnew and Gorey, two of the three principal urban centres in the area – were still hosting a regular market.

In the post-Restoration period, for which time reasonably reliable population statistics first become available, substantial, concentrated communities were rare for this area. In the 1660 poll-tax returns, for instance, only Gorey (eighty-nine taxpayers, of which fifteen were English), Limerick (sixty-six, including eleven English), Killealy (sixty-six, including just two English), Ferns (seventy-six, including only eight English) and Clohamon (ninety-four, fourteen of whom were English) contained more than sixty taxpayers, and these compared unfavourably with the substantially larger urban conurbations, further south, at Enniscorthy (389 taxpayers, including English), New Ross (618, of which 241 were English) and Wexford (902, including 340 English).⁶² Four of these five urban centres – Killealy being the exception – had been granted markets under James I (figure 76), and by 1660, each contained small, minority English (and probably Protestant) communities.

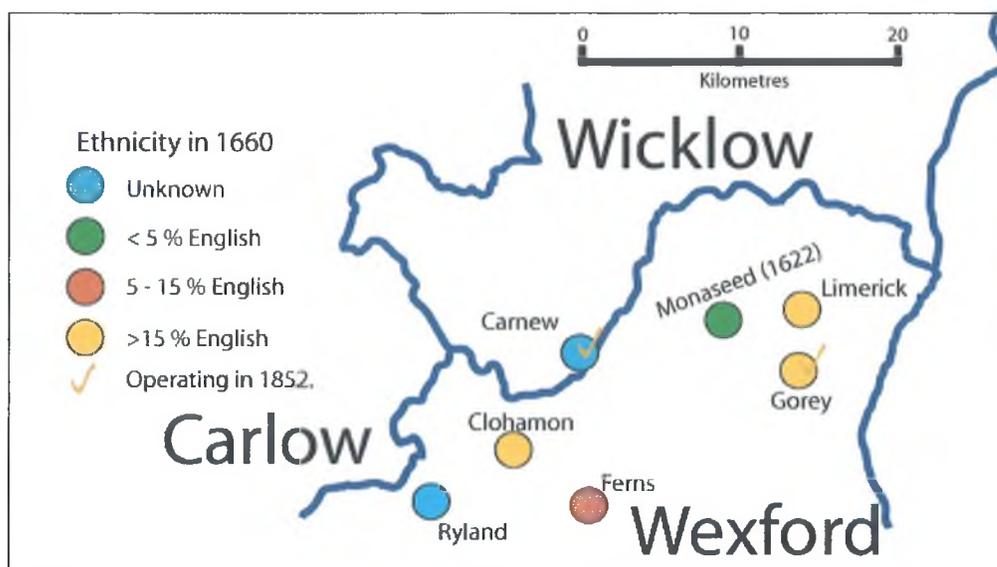


Figure 82 – Ethnicity in 1660 of locations in north Wexford which received market-patents before 1640 (source: Pender, with intro by Smyth, *Census Ire., c. 1659*, pp 552-56).

Neighbouring Monaseed, located north-west of Gorey, in Kilnahue parish, had a contrasting development, however. ‘Hitherto inhabited for the most part by the meer Irish’, William Marwood had been granted a patent to hold a weekly Saturday market and an annual fair in 1616,⁶³ but in 1622, just six years later, this patent was surrendered, and a new one issued, permitting two annual fairs, but no market.⁶⁴ However, Kilnahue parish was no less thinly populated than neighbouring parishes, so the local demographics should have been sufficient to similarly support a market at this location, although two distinctive developments at Monaseed can be proposed as probable causes of the rapid failure of its market. First, the ethnic balance in Monaseed differed from the other towns in the region. In 1660 only seven poll-tax payers in the entire parish were recorded as English, whereas English communities, although nowhere large, were, nonetheless, more significant in places like Gorey and Limerick.⁶⁵ Secondly, although Kilnahue parish was reasonably well populated, no urban centre had evolved at Monaseed, unlike at Ferns, Clohamon, Limerick or Gorey.⁶⁶ In 1660 just four taxpayers were recorded at Monaseed, all of whom were Irish. It would seem, therefore, that either ethnicity or settlement patterns, or perhaps a combination of both factors, coupled with its location, close to markets at Gorey and Limerick, may have conspired to quickly kill off the potential for a market at Monaseed. What is

notable, however, is that Monaseed represented the only location in the region where a grant of a market was quickly revoked, and the coincidence that no urban centre had developed there suggests that urban settlement may have been no less important for the survival of a market in the early seventeenth century, as was seen to have been the case during the nineteenth century.

No figures for the ethnicity of Carnew are available for this period, although that town also appears to have been extremely small at the time of the Restoration. A few years after the poll tax was conducted, only twelve people paid tax on their hearths in 1669, compared with 152 in Wicklow town and sixty-eight in Arklow. However, the town's importance stemmed not from its size, but from its location, on the vast Strafford estate. It was the largest urban settlement on the estate, and, as such, its survival as a market town was all but guaranteed.

Between the early-seventeenth and mid-nineteenth centuries, evidence for either the operation or development of markets in Wicklow is scant, although the county maps by Jacob and Arthur Nevill provide mid- and late-eighteenth century evidence for the location of markets, the details of which are shown in figure 83. Jacob Nevill's 1760 map shows eleven market centres within the county, and four decades later, Arthur Nevill's survey, from 1798, confirms these locations, and adds two additional ones, at Bray and Stratford. The date of commencement of these two new markets is uncertain, but the market at Bray was operational by 1784 at the latest, and Stratford's market was authorised by patent in 1774.⁶⁷ The 1798 map still notes Carysfort as a market-site, but by 1814 at the latest that market had ceased,⁶⁸ and by 1837 Samuel Lewis notes the termination of the market at Newtownmountkennedy, the market house 'being disused as such for a long time'. Stratford's market was still continuing, although the sharp decline in the town's fortunes was becoming evident.⁶⁹ Within a decade, by 1846, Stratford's market had also closed,⁷⁰ and by 1852 a new market had commenced at Avoca.⁷¹

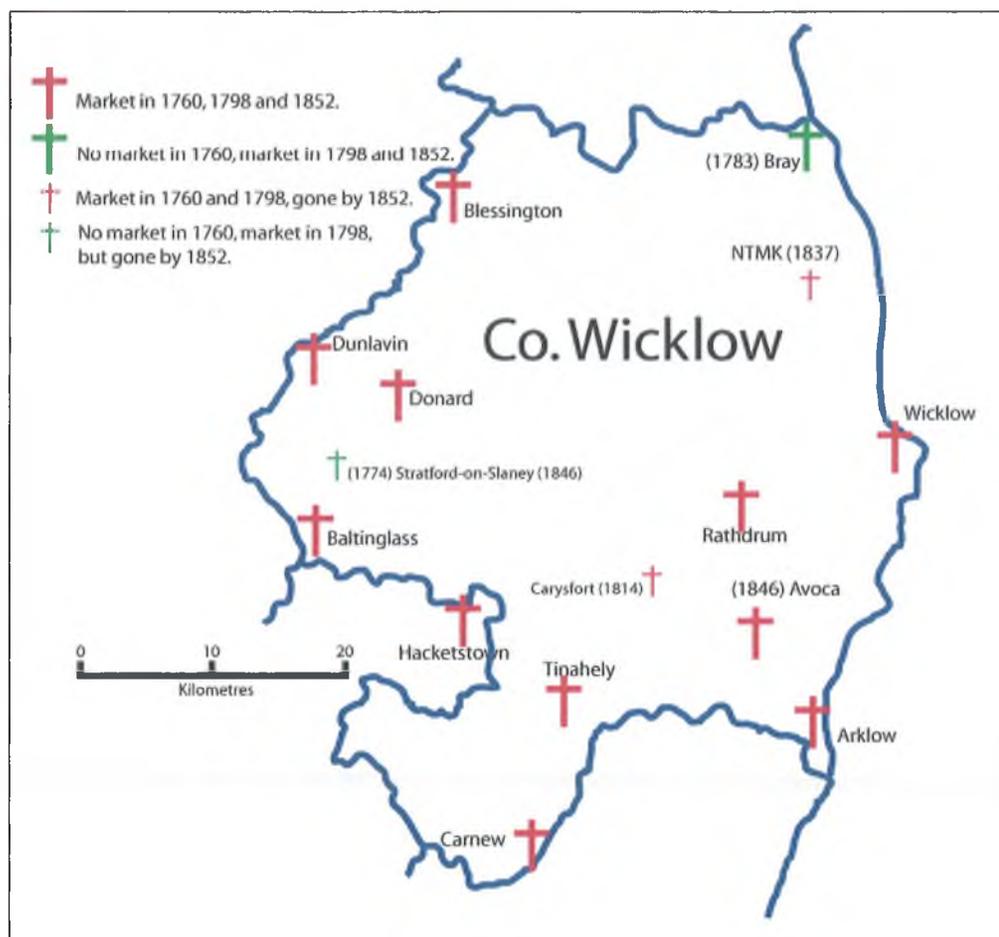


Figure 83 - The development of Wicklow's market economy in the late-eighteenth century.
Note: a date preceding the name of the town indicates the approximate date of commencement of the market and a date following indicates the year by which time the market is known to have been terminated (source: *Report of commission appointed to inquire into fairs and markets*, pp 43-5; Jacob Nevill, *Map of Wicklow, 1760*; Arthur Nevill, *Map of Wicklow, 1798*).

It appears, therefore, certain that a substantial concentrated population was a requisite for the survival of a market in the mid-nineteenth century urban, as evidenced by the rapid termination of markets at Stratford, Carysfort and Newtownmountkennedy, once their urban populations declined. If the unique failure of the market at Monaseed can be considered illustrative, an urban concentration would also appear to have been necessary in the early-seventeenth century, to safeguard regular and frequent commercial activities. This implies, of course, that for most rural dwellers, a market provided an opportunity to sell, rather than it being an instrument for regular purchase, a fact evidenced by the absence of market-sites between Bray and Wicklow in the middle of the

nineteenth century (figure 81). However, since rural dwellers would appear to have been infrequent customers at the market, then this implies that much of the rural sector remained a predominantly cashless economy, and the commercialisation of agriculture remained elusive at most social levels.⁷² Certainly, it was the case that cash circulated in all economies, and money was received as remuneration for the provision of labour, but this currency was used more to pay rents, the hearth tax and the various parish, barony and county cesses, than for food produce at the local market.⁷³ Thus, access to land provided an opportunity to escape the vagaries of fluctuating local prices, and the evidence strongly suggests that most grasped that opportunity.

The fair – patents, and the development of rural economies

Since markets were regular, largely mundane, events they are a more suitable tool for adjudging regional economic fluctuations and the development of secondary and tertiary economic activities than are fairs, but it is for fairs rather than markets that far more source material has survived. Unlike the local demographic requirements for markets, fairs did not require a substantial urban population in the immediate hinterland, but could be held at any location, even in remote, thinly inhabited places. In the main, however, by the early years of the eighteenth century, most fairs in the Wicklow region were held in or near urban centres, or, under the auspices of early patents, in manor-sites. During the second half of the eighteenth century the number of fair-locations expanded considerably, many of which were centred in rural areas, remove from concentrated population-settlements. Two factors were driving this development. In the first instance, the colonization of marginal lands was proceeding apace, driven by the two principal social developments that were examined in the first part of this thesis – the increasing population levels (outlined in chapters two and three) and the improvements in infrastructure (examined in chapter one) – which had succeeded in opening up new markets for agriculture outputs. These developments fostered the second factor driving the increased incidence in fairs – the increased amount of money that was in circulation, which necessitated the provision of formalised economic structures. An improving infrastructure fostered the

increased commercialisation of the top levels of agricultural production, which cascaded specie through most social levels, and the spread of the linen, cotton and frieze industries industry, both domestic and commercial, further diffused specie through the economies. While this may appear at odds with earlier conclusions regarding the location of, and survival of, market-sites being principally determined by the degree of commercialisation of agriculture, the contradiction is easily explained by the question of scale. A regular market required the continuous circulation of substantial quantities of specie, whilst an annual fair only required that reasonable amounts of money be accumulated over the course of a year.

As was the case with markets, fairs were also viewed, ironically, it will emerge, as an instrument by which 'rude and rustick' territories could be civilised. The typical seventeenth-century patent usually authorised no more than two fairs each year for a location, but, whilst markets were single-day events for the purchase or disposal of produce on a small scale, most fairs were authorised to continue for two or more days. Thus, this patent, permitting the holding of markets and fairs at Baltinglass, was fairly typical of early ones:

... power to... hold a Saturday market at Baltinglass, and two fairs there on 24 June and 24 Aug. and the two days following each [i.e. 3 days duration], unless those days occur on Saturday or Sunday, in which case the fairs are to be held on the Monday ensuing and the following two days....⁷⁴

It is interesting to note that while Saturday was a popular market-day, most fairs, as is the case in the Baltinglass patent, were forbidden on Saturdays, and if they fell due on that day, they were usually to be postponed until the following Monday. Although this qualification disallowing weekend fairs was not universal in James I's patents, it was the most common prerequisite for fairs established in the first two decades of the seventeenth century, and it remained in force for a considerable number of fairs in the country even by the middle years of the eighteenth century.⁷⁵ The reason for this distinction will be highlighted later, but it is clearly related to the differing activities that were practised at a fair. A market was concerned purely with trade, whereas a fair was characterised by various activities, unbecoming the eve of the Lord's Day.⁷⁶

The formal process by which a patent for a fair was secured was expensive, and the grantees recouped their investment through the collection of tolls on the purchase or sale of produce. Although the collection of tolls was a long-standing custom at most sites, it was a focus for discontent, and a cause of concern for the Commission into the state of fairs and markets in the 1850s. The early patents dealt ambiguously with the issue of tolls, typically permitting the proprietors of the fairs to charge 'customary' tolls, rather than specifying specific numerical figures.⁷⁷ In most cases it was presumed that these tolls would be expended on providing facilities and services to the patrons, but by the mid-nineteenth century the Commissioners for Fairs and Markets reported that the revenue was otherwise appropriated in many cases. Furthermore, the Commissioners considered toll-levels in general to be 'excessive and unreasonable in amount', the method of collecting the charges as 'arbitrary and oppressive', and, in many cases, the tolls themselves as 'a tax levied on the agricultural produce of the surrounding country'.⁷⁸

Belated opposition to the tolls from the mid-1820s onwards,⁷⁹ which broadly coincided with increased anti-tithe troubles, secured their abolition in some areas, and by the mid-1840s the south-east, including Wicklow, was virtually free of tolls, although tolls had been collected at Dunlavin until 1842, and the toll at Newcastle (Wicklow) was reported as only recently discontinued, in 1844.⁸⁰ Watson's annual listings provide further evidence for the development of tolling at fairs in Wicklow, which is further discussed in appendix 36.

The principal source material for tracking the development of fairs sites are through contemporary almanacs and commercial directories. Prior to 1729, almanacs were only sporadically published in Ireland, but for the late seventeenth century, Ambrose White's and John Bourk's directories provide useful information on some of the fairs then operating, although these listings are very incomplete. For 1685, for example, Bourk notes just six sites (including Bray) for County Wicklow, at which only eleven fairs were scheduled, and long-standing sites, such as Blessington, Carnew and Carysfort, and larger towns, including Wicklow and Arklow, are conspicuously absent (tables 52 and 53, figure 86). In 1729, however, John Watson's annual *Gentleman's and citizen's almanack* was

first published, and its characteristic inclusion of a list of fairs scheduled for the coming year permits a more rigorous examination of the development of local economies, and trading patterns . Watson's record is not without errors; the listings for 1729 and 1730 are ambiguous, and the listings for 1731 to 1734 inclusive are certainly highly deficient. After 1735, however, the listing of fairs appears to become increasingly definitive, although it may be significant that the almanac does not claim to list all the fairs in the country until 1766.⁸¹ For 1729 and 1730 less than 550 fairs are listed nationally, but by 1735 the number of events had risen to more than 2,000, and although the early 1730s did correspond to the creation of some new fairs, the modest rate of establishment at that time cannot account for the large increase recorded by Watson between 1730 and 1735. The increased thoroughness with which fairs were recorded in *Watson's Almanack* is shown in figure 84, and the increased creation of fairs during the 1730s is illustrated by figure 85, which shows a modest recovery in the number of newly-established fairs during the early 1730s, from a nadir experienced during the mid and late 1720s.

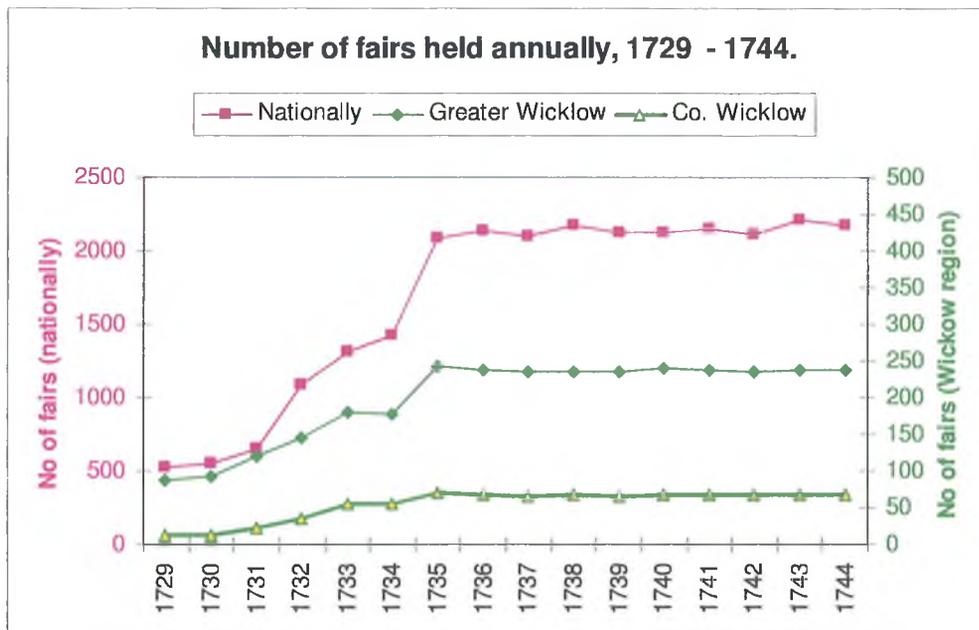


Figure 84 – Number of fairs listed in *Watson’s gent. and citizen’s almanac*, 1729-44 for all of Ireland, for Greater Wicklow (comprising Counties Carlow, Dublin, Kildare Wexford and Wicklow) and County Wicklow (source: *Watson’s triple almanack*, various years).

Note: The ‘Nationally’ graph is plotted against the left hand vertical axis and the two remaining graphs are plotted against the right hand vertical axis.

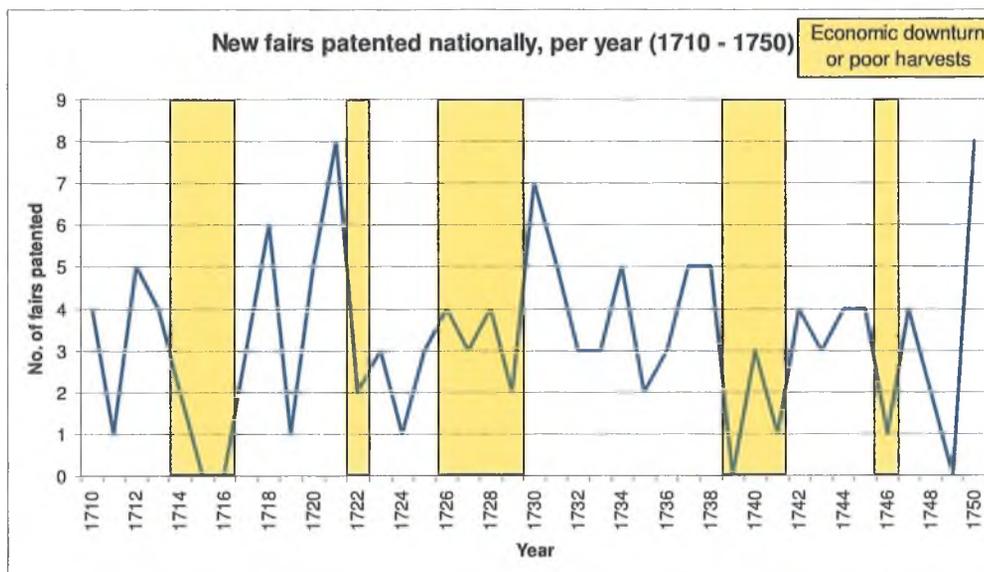


Figure 85 – Patents establishing/re-establishing fairs for each year, 1710-50 (source: *Report from commissioners, fairs and markets*), with periods of distress highlighted (chapter three).

A correlation between the creation of new fairs and the economic cycle is clearly implied by figure 85. In chapter three, four periods of prolonged, sustained periods of distress were identified in the four decades after 1710 – in 1714-6, 1726-29, 1739-41 and the mid-1740s. As figure 85 shows, each of these four periods coincided with a significant dip in the number of new fair-patents awarded, highlighting the links that existed between economic investment and levels of public confidence about future economic prospects. It is evident, too, that as the economy recovered, in the aftermath of a downturn, the rate of creation of new fairs increased, reflecting a more buoyant view of the future among proprietors and investors. This is illustrated by the increased establishment of fairs in the early 1720s, the early 1730s and the middle years of the 1740s. It is worth remembering, in this regard, that a considerable capital investment on the part of prospective proprietors was required to secure the patent for a fair (the Commissioners for Fairs and Markets estimated the cost of a patent in 1852 at £71:10:3)⁸², so high levels of public confidence and a strong economy were essential elements in the expansion of market economies.

Early eighteenth century developments

Although the recording of fairs in *Watson's Almanack* was clearly incomplete before 1735, this can be of some benefit, as it seems probable that Watson's earliest lists may have been biased in favour of the largest, best-known fairs. For County Wicklow, in 1729, two fairs were held at Aughrim, Newcastle, Newtownmountkennedy and Rathdrum, and four other locations – Wicklow, Ballycops, Hangarstown and Clangee – hosted one fair during the year.⁸³ The four former locations were among the earliest fairs authorised in the county, each of which had received initial patents during the seventeenth century,⁸⁴ and it is notable that these four sites are all located to the east and the south of the uplands, whereas west Wicklow was served by locations in neighbouring counties. With the topographical geography of the region operating as a barrier to trade and communications, the direction of economic flows was gravely curtailed at this period, prior to the infrastructural improvements of the later half of the century.

Figure 86 shows the location of the fairs in the greater Wicklow areas listed in the pre-1735 editions of the almanac, with the caveat, noted above, that

these were likely biased in favour of larger fairs. Also shown, for County Wicklow only, are the principal roads within the county at that time, as reported by Herman Moll's 1714 *Map of Ireland*. By this period, more than a century after the initial granting of patents for fairs under the early Stuarts, and more than a half-century after a second bout, following the Restoration, the location of fairs was governed by two interlinked, and at times contradictory, factors; the supply of and the demand for produce, and custom and tradition. The demand for produce was clearly determined by population levels in the immediate vicinity, and by the strength of the local economy. Thus, while fairs could be held in remote locations, with low population-levels, the importance of a large population base in the general vicinity is evidenced by the proliferation of fairs on manor-sites ringing Dublin, and most of which were strategically located on primary routeways towards the capital.



Figure 86 – Fairs in the greater Wicklow region, 1729-34 (source: John Watson, *Gentleman's and citizen's almanack*, various years). Also shown are, primarily for County Wicklow, the routeways on Herman Moll's 1714 *Map of Ireland*. *B* shows fairs that are listed in John Bourk, *Hiberniae Meritibus*, 1685, and fair names presented in italics (and parentheses) indicate fairs that are listed by Bourk, but not by Watson for any year between 1729 and 1734.

The importance of the local demographic structures underlying the location of fair-sites at this period becomes all the more evident when the number of fairs occurring each year at a particular location is borne in mind. Areas with large population-concentrations, urban centres on important communications routes or areas which were centrally involved in agricultural or rural industrial activities typically hosted multiple fairs during the year. Many of the fair-sites ringing Dublin held two or more fairs during the year, and at Lusk, Saggart, Crumlin and Donore four or more fairs were held during some years. Within County Wicklow, sites where multiple fairs were held were also concentrated around locations where population densities were highest, including at Rathdrum and Wicklow town, both strategic regional centres. The fertile, productive north east was also well served, with fairs occurring regularly during the year at Newcastle, Newtownmountkennedy and particularly at the village of Downs, which was also located on an important highway south from Dublin, although Moll chose not to show it. Further south, four fairs were held in 1733 and 1734 at Tinahely, where the principal north-south and east-west routes met, Coolboy and Carnew, and in County Carlow, Hacketstown, Tullow and Clonegal, provided additional, or alternative, services. Notably, no fairs are recorded at Tullow for 1729 or 1730, at Carnew for 1729-31 and at Tinahely and Coolboy for 1729-32, which is surely illustrative of the poor recording of fairs by Watson during the *Almanack's* early years. Other notable absentees from the lists at this time include the various patron-sites, which, although nominally religious, often simultaneously attracted peddlers and hucksters. Long-standing Catholic celebrations were held at various sites, often remote and thinly populated, in the south-east, including at Lady's Island and Gorey-well in Wexford, at Kildare on St Brigid's Day (first patented in 1457⁸⁵) and at Glendalough in County Wicklow, but only Kildare, a large market town, merited inclusion before 1735 in Watson's *Almanack*.

Although most of the fairs listed for the 1729-34 period were based at or near urban settlements, some few fairs are yet recorded in remote locations. In some cases, ancient rights to fairs, licensed by patents granted during the seventeenth century to manors that subsequently failed to develop, were still activated annually by landowners. In County Wicklow, such fairs were held at

Ballycops and Macreddin, which, in the 1730s, were predominately rural areas, some kilometres distant from Rathdrum, the nearest population centre. Similarly, in the surrounding counties, long-standing authorisation for fairs were still being activated, at places like Mainham, Clane and Castlemartin, in County Kildare and Sherwood and Kellistown in County Carlow, all of which were predominantly rural, or insignificant urban centres. In fact, it is even unclear whether fairs actually took place at these locations, because after 1735, when *Watson's* listings were considerably improved, many of these sites disappeared from the annual lists, and it is not unlikely that although some were being advertised, little or no activity was actually taking place.

A high rate of attrition was experienced by fair-sites that had been licensed in the Wicklow region during the seventeenth century, as is shown in figure 87. In total, eighty-six fair-locations authorised during or before the seventeenth century can be identified for the greater Wicklow region, but only forty-nine of these sites recur in any of *Watson's* lists for any of the years between 1729 and 1734 inclusive.⁸⁶ While it would be unwise to view this low rate of success as being representative of the true picture, it clearly illustrates that the rudimentary economy of early modern Wicklow was insufficiently developed to support formalised trade throughout much of the region. This is all the more surprising because, as was noted above, even though a local economy may not have been structured to support an economic order based on the regular weekly market, the economic requirements for the survival and operation of a fair were considerably less stringent.

recorded at Bray and Newtownmountkennedy for this period, although both are subsequently recorded by Watson from 1735 onwards, suggesting omission rather than inactivity in the 1729-34 period. Nonetheless, since it was earlier proposed that Watson's initial listings were likely biased in favour of recording the most prominent fairs, then even if some of those fairs were still occurring, they were likely to have been small.

The failure of some fairs is unsurprising. The fair at Corballis was licensed to an O'Byrne, so its survival beyond the dispossessions of the Cromwellian period was unlikely, and Glencap, in the north-east of the county, was thinly populated, so, in the absence of any alternative attractions, such as at Glendalough, its demise was likely swift, also. Administrative necessity put paid to other fairs, such as the one at Ballygarret, in north-east Wicklow. Robert Kennedy had been authorised by a 1660 patent to hold a fair at Ballygarret, and four years later he was licensed to hold a fair at Mountkennedy, just a kilometre distant. Likely, this represented internal administrative changes within the manor administration, with the Ballygarret fair simply being transferred to the nearby village site.⁸⁷

Since the ultimate factor underlying the survival of a fair was the attendance of customers, it was important that fairs did not occur simultaneously, within a confined geographic area, and in the earliest patents it was often specified as a precondition that new fairs or markets did not impact negatively on others that were already functioning.⁸⁸ How this operated in practice can be seen from figure 88, which shows the timing of fairs at the eighty-eight fair-sites in and near County Wicklow. Usually, fairs did not occur during the same month, within the same general area. This was particularly important before the seventeenth century, because during the succeeding century specialist agriculture and manufactures spawned the evolution of specialist fairs, which could occur simultaneously with other fairs, and yet not be in direct competition with each other.

In general, it can be seen that fairs within a specific region were typically distributed throughout the yearly calendar. In north-east Wicklow, for example, a fair was authorised, under James I, at Newcastle for 24 June (St John the Baptist's Day) and at Cronroe, near Wicklow town, on Michaelmas Day (29 September).⁸⁹

Petty also notes that 'there was at Wickloe [town] before the late warr severall ffares ... and a market once a week', although the dates of the fairs are unknown.⁹⁰ Under Charles I, fairs were licensed at Bray for Sts Philip's and Jacob's Day (1 May) and St Martin's Day (11 November), at Kiltimon for St James's Day (25 July), and at Kilcoole on Whit Monday (variable, between 11 May and 14 June) and on St Bartholomew's Day (24 August).⁹¹ Other changes during Charles I's reign included the rescheduling of the Newcastle fair to 29 June, and the addition of a new fair at Newcastle for 25 November.⁹² A fair was also licensed for Glencap, but its timing is uncertain.⁹³ Although the uncertain timing of the Glencap and Wicklow fairs prevents a conclusive statement that the fairs in this extensive area were timed to avoid overlap, at least the fairs for which dates are known, at Newcastle, Kilcoole, Bray, Kiltimon and Cronroe, were all patented for different times, except for the rescheduled Newcastle fair, which now occurred just two weeks after the Bray's, on St Martin's Day.

Under Charles II, further changes in the timing of fairs in this region were effected. The November fair at Bray was rescheduled for mid-September,⁹⁴ and the dates for both Kilcoole fairs, which had previously been authorised for high summer, were also changed, to 25 May and 29 September, perhaps to align more closely with agricultural patterns.⁹⁵ The second Kilcoole date now clashed with the fair at Cronroe, but these were both small affairs, and were probably sufficiently remote from each other (about twelve kilometres) to prevent them being in direct competition. Ballygarret, near Newcastle, was also established as a fair site, with two fairs permitted each year, on Easter Tuesday and St Luke's Day (18 October), as also was Mountkennedy, but the date of its fair is not known.⁹⁶ Thus, during the reign of Charles II, fairs were being held at Bray, Kilcoole, Newcastle, Kiltimon and Cronroe, but all of them, with just one exception, occurred at unique times of the year.

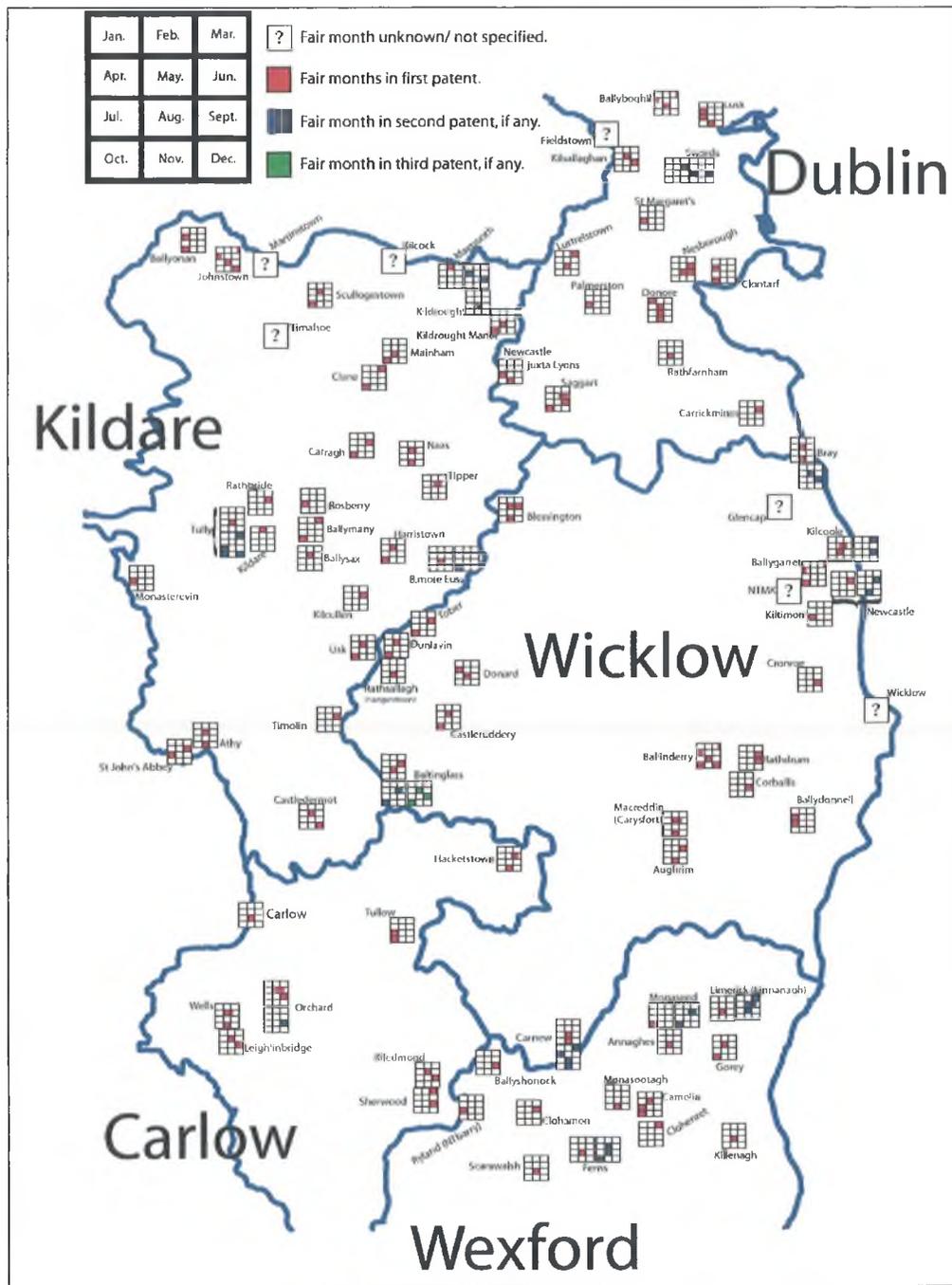


Figure 88 – The timing of fairs licensed during the seventeenth century for the greater Wicklow region (source: *Cal. pat. rolls Jas I*; *Cal. pat. rolls Chas. I*; *Report of commissioners for fairs and markets, 1852, pp 118-20, 148-9*).

Of course, although fairs were important social events for communities, the ultimate reason for a fair was to facilitate trade and exchange. As such, while they may have been scheduled so as not to overlap with adjacent events, nonetheless, their timing still complemented the regional seasonal patterns evident in the local agricultural and manufacturing industries. It is unsurprising, therefore, to find most fairs crammed into the busy period between Easter and Michaelmas, but being less frequent during the winter months. In pastoral areas, February through April corresponded with the busy agricultural period, during lambing, calving and sheering, and in arable regions these were the months when land was prepared and grains and seeds, including potatoes, were sown. May and June, therefore, were months during which accumulated raw materials, such as wool, had to be disposed of, and when over-wintered cattle could be sold, for fattening on marginal lands or pasture. Demand for consumables was also stimulated during these months, by the increased quantities of money that were in circulation, through wages earned during the previous quarter.

Pastoral farming typically exhibited a lesser degree of seasonal fluctuations than did crop-growing, and the demand for labour in arable areas remained high throughout the summer. From mid-summer, potatoes, vegetables and summer grains ripened and had to be harvested, and later, from August through October, the demand for labour increased to its yearly maximum, when the harvest had to be gathered, and the hay and straw collected and cocked to provide food and bedding for livestock during the winter. Cattle which had been fattened on marginal lands during the summer also had to be disposed of to avoid the prohibitive costs of their maintenance during the winter.

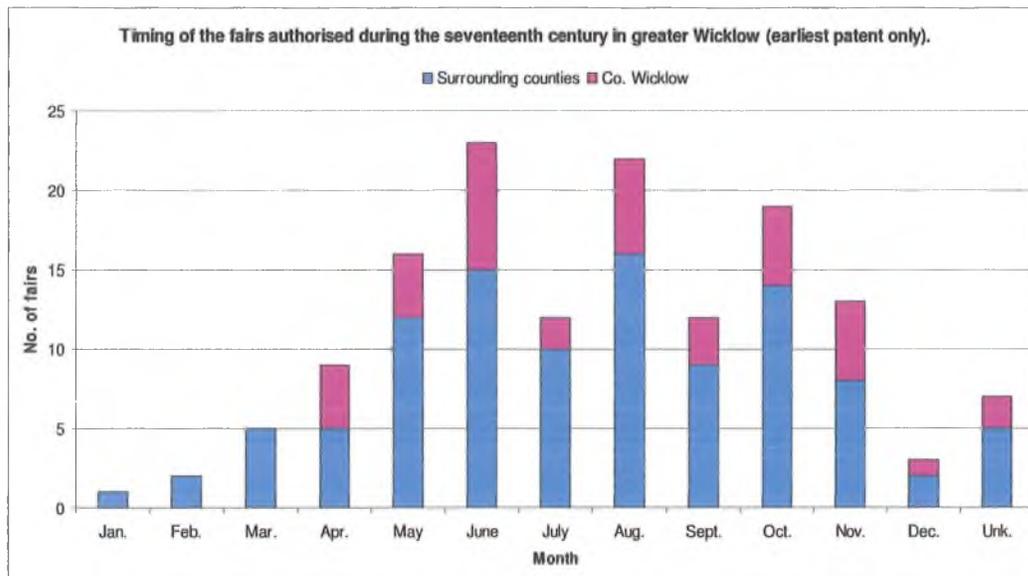


Figure 89 – Timing of fairs patented (first patent only) during or before the seventeenth century for the greater Wicklow region (the location of the fairs considered are shown in figure 87).

Note: Some locations received multiple patents. Since inclusion of all data for these sites would bias the statistics in their favour, only the months specified in the earliest patent for multi-patent sites have been included.

Figure 89, showing the timing of fairs patented during or before the eighteenth century, highlights the seasonal nature of the agricultural cycles. Fairs were rare during the early months of the year, but became more frequent once the agricultural cycle picked up in late spring, peaking in May and June, after the birthing and sowing period, when there was a ready availability of the two necessary ingredients for successful economic transactions – money and stock. During mid-summer the incidence of fairs fell sharply, reflecting the downturn in agricultural activity following the spring flurry, and the general shortage of money that typified that time of the year. It will be remembered that July was the month of the year during which the amount of money in circulation was lowest (figure 75). Once high-summer was passed and the level of agricultural economic activity began to pick up again, the incidence of fairs also increased, reflecting the improving money situation, and the busy harvest months saw an intense burst of economic activity, when raw materials and livestock were disposed of. After October, the number of fairs began to tail off again, as the weather deteriorated,

the opportunities for agricultural employment contracted and industrial activity quietened.⁹⁷

The first reliable view – the late-1730s

From 1735 onwards, one can have considerably more confidence in the listing of fairs in *Watson's almanack*, although some errors and omissions remain inevitable. For County Wicklow, a mean of just thirty-two fairs per year were recorded for the period 1729–34 inclusive, but seventy events are recorded during 1735, and similar increases occur for other counties (figure 84). The increase in the number of fair listed for 1735 reflects both an improvement in the recording of fairs at sites which had been listed in the period 1729-34, and also an increase in the number of documented fair-sites. Twenty-one different sites had been recorded for County Wicklow between 1729 and 1734, but twenty-four sites are listed in 1735, including a fair at Seven Churches (Glendalough) on 3 June, St Kevin's Day.⁹⁸ For 1735, Watson records more fairs than in previous years for all counties, except Dublin, where the number of fairs documented plummeted to just fifteen, from a mean of thirty during the previous six years. Nonetheless, despite this reputed increase in the number of fairs, the fundamental temporal patterns underpinning the timing of fairs remained largely unchanged from the hypothetical distributions of more than a century previously (figures 89 and 90), although some minor changes in the rank importance of various months did occur. The monthly scheduling of fairs in 1735 is presented in figure 90.

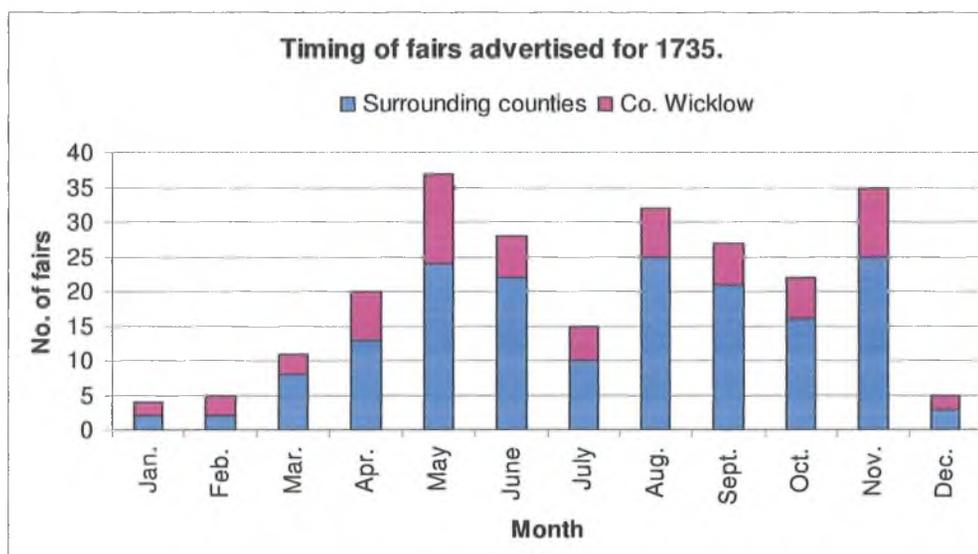


Figure 90 – Timing of fairs occurring in Counties Carlow, Dublin, Kildare, Wicklow and Wexford during 1735 (source: *Watson's triple almanack, 1735, pp 74-90*).

May remained the most popular month for fairs in County Wicklow and in the entire south-east, as it had been under the patents of the previous century (figures 89). Perhaps the most notable feature of the advertised schedule for fairs, however, is the complementary alignment between the agricultural and money cycles on the one hand (figure 75) and the temporal scheduling of fairs on the other. November, a peak month in the money cycle, in the aftermath of the harvest, had been the fifth most popular month in the seventeenth-century patents, but by 1735 it had emerged as the second most popular month for fairs, both in County Wicklow and in the five south-eastern counties. The importance of the harvest within the regional economy is further evidenced by the strong showing of August, September and October, too, and, more fairs were scheduled for the four months between August and November than between any other four month period during the year. Although the intermediate evidence is lacking, the concentration of fairs throughout the autumn season, coupled with the increased importance of November as a month for fairs, strongly implies that the retailing structure was evolving to complement regional agricultural practices.⁹⁹

Further evidence for this is presented by the statistic for July. At a superficial level, July would appear an advantageous month for holding fairs. It was not without its important religious feast days (principally St Thomas (3 July)

and St James (25 July)), the weather was warm, and it contained the maximum number of days, so it could be expected to have had a reasonably representative number of fairs. In spite of these advantages, however, July was the least popular month of all eight months between April and November inclusive (figure 90), as it had also been during the preceding century (figure 89). Clearly, therefore, the below-average number of fairs scheduled for July 1735 was exclusively the by-product of the decline in pastoral agricultural activity and the consequent decline in the money-supply, which occurred during that month.

The number of fairs occurring at each site also merits consideration (figure 91), although the incidence of fairs can, at best, only be viewed as a rudimentary guide to contemporary economic conditions.¹⁰⁰ Nonetheless, the number of fairs held per year at a particular site closely matches the general regional agricultural patterns that were outlined earlier. In 1735, fair-sites hosting four or more fairs were broadly concentrated in the south of the county, in a band running from Wicklow town, through Rathdrum, and into Shillelagh, east Carlow and north Wexford, a vast swathe of territory broadly coinciding with pastoral agricultural activity (figure 10). The link between pastoral activity and more regular fairs is further reinforced by the occurrence of four fairs at Downs and Roundwood, two locations in the north of the county, but which skirt the upland areas and where pastoral activities were also prevalent, on the marginal poor soils. Elsewhere, fairs were less frequent, and this was particularly the case along the coastal strip, where tillage and grains were of greater importance.

A declining economy during the 1740s

In chapter three, the 1740s was shown to be the most economically challenging decade of the eighteenth century, which produced serious demographic impacts within Wicklow. It could be presumed that Watson's annual listing of fairs would provide an opportunity to track economic fluctuations during the eighteenth century, but this seems doubtful. Although fairs were occasionally discontinued during times of economic difficulties, since Watson's listings represent schedules of fairs that were to occur in the future, rather than records of events that had previously occurred, then the listings are largely independent of contemporary economic conditions. There is no evidence to indicate that scheduled fairs were ever suspended due to economic fluctuations, and it seems less likely that a fair would have been postponed because of economic difficulties than that the fair would have been held, but with a reduced custom.¹⁰¹ The resilience of regional trading economies is highlighted by events at Macreddin, at the commencement of the nineteenth century, when, although the region had been gravely impacted upon by the rebellion of 1798, commercial activity quickly resumed, despite the continued presence of rebels in the mountains. Thus, a fair was held at Macreddin in November 1801, even though Michael Dwyer's forces were still at large, and remained sufficiently emboldened to raid the site when hearing of the attendance of members of the Rathdrum Yeomen.¹⁰²

Furthermore, even if some of the fairs listed by Watson were not ultimately held during crisis years, the number of fairs occurring during a year can at best be viewed only as a crude, and largely untrustworthy, gauge of economic well-being, since it was the level of trade occurring at the fair that would more accurately reflect contemporary regional economic conditions, and for trade volumes there is typically little surviving evidence. However, earlier it was shown that for the 1710-50 period changes in the number of newly created fairs were closely positively correlated with general economic trends and with fluctuating levels of public confidence as to perceived future economic developments (figure 85). If the trends in new fairs are observed over a wider time-span, this link is further reinforced, and economic and infrastructural trends, observed in part one of this work, are confirmed (figures 92 and 93).

The links between economic activity and capital investment in fair-patents is clearly evident for the 1740s. During the opening years of that decade the number of newly authorised nationally fairs fell, from a higher, but still modest, mean, during the 1730s (figures 92 and 93). Once the crisis abated, the resumption of more favourable agricultural production after 1742 saw a general small increase in the level of new fairs, which was maintained until the crisis years of 1746-7, when only one new patent for a fair was authorised. Similarly, linkages between known demographic crises and a fall in the establishment of new fairs can be seen during the 1750s and 1760s. The link is most clearly evident at the termination of a period of distress, when public perceptions about future economic prospects must have been buoyant, and investment in new fairs showed a tendency to increase. In particular, the four years during which substantially increased activity in the Patents Office is evident – 1751, 1764, 1766 and 1775, all closely follow the resumption of benign economic conditions after one or more years of sharp economic downturn. Thus, while the number of fairs scheduled may provide little guidance as to the state of the economy, the economic predictions of entrepreneurial investors, which were clearly mirroring short-term economic trends, can provide an insight into public perceptions about future economic trends.

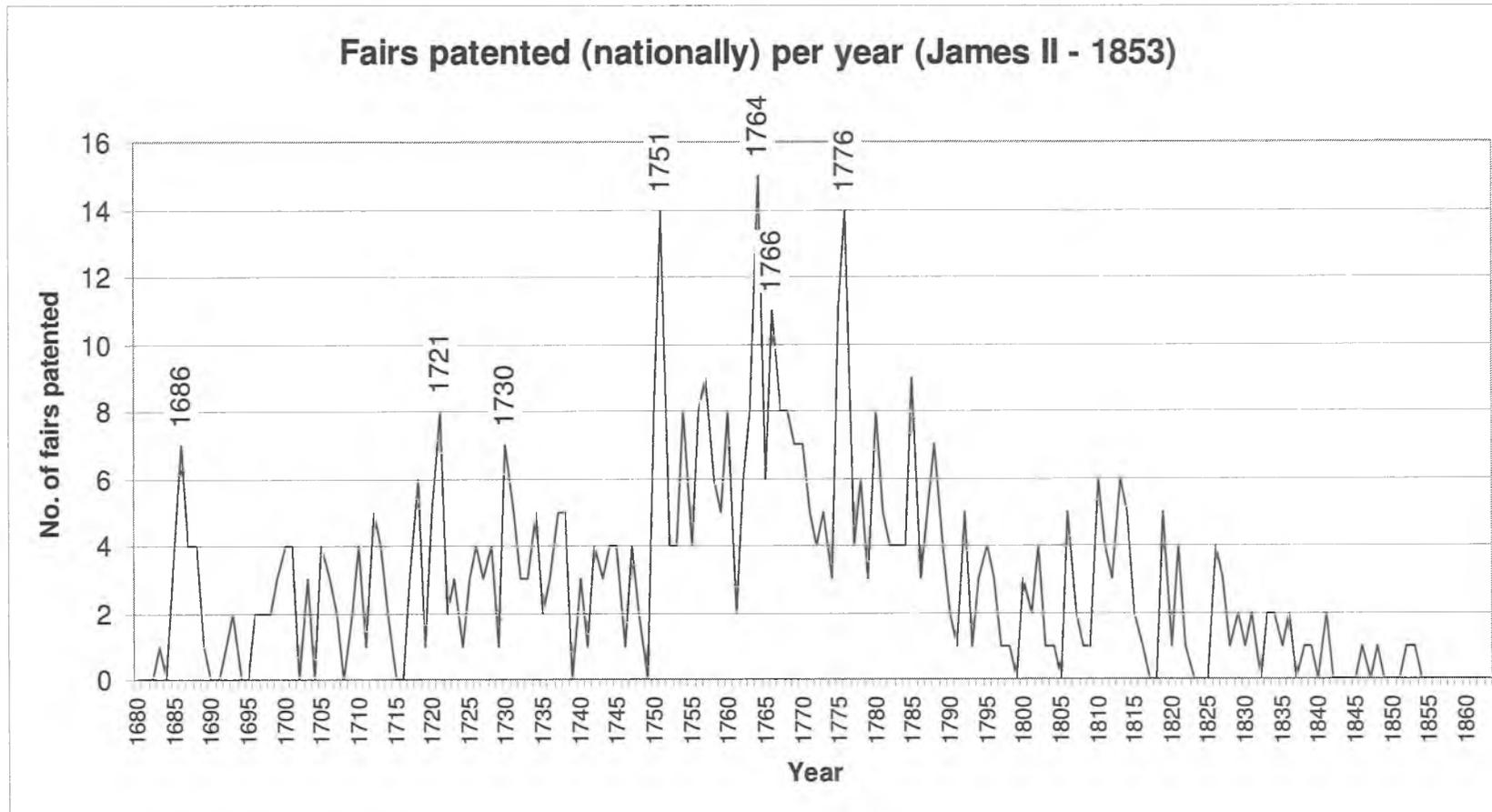


Figure 92 – Fairs patented nationally, per year, 1685 – 1853. The twenty-five years following mid-century saw a significant increase in the number of patents issued for fairs (source: *Report of commissioners for fairs and markets*, 1852, pp 59-149).

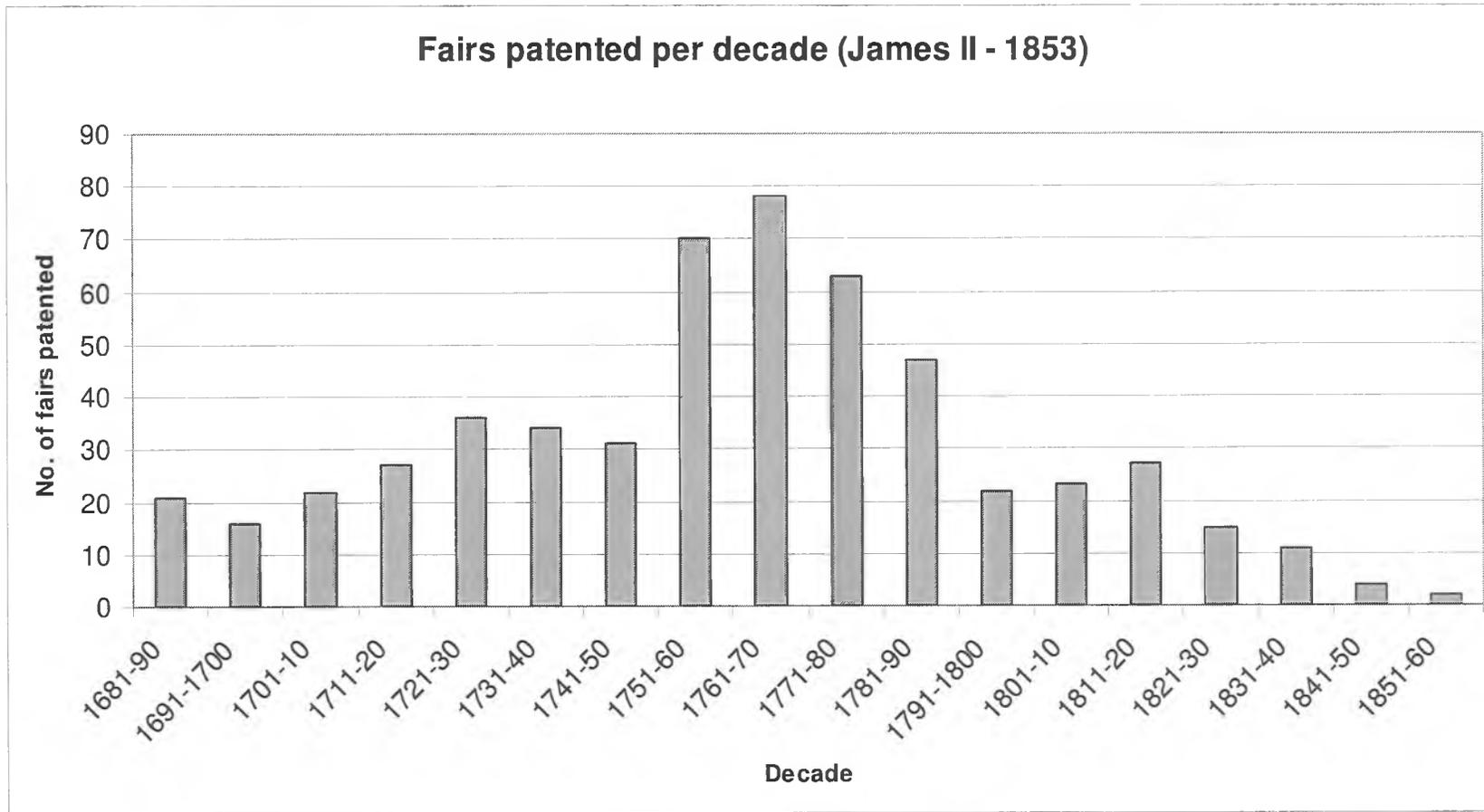


Figure 93 – Fairs patented nationally, per decade, 1685 – 1853 (source: *Report of commissioners for fairs and markets*, 1852, pp 59-149).

The difficulties of the early 1740s are not evidenced solely by a fall in the rate of establishment of new fair-sites, but also by a general stagnation in the number of fairs held in the region in the early 1740s (figure 94). By 1744, by which time the economic difficulties of the 1739-41 period had eased, only one new fair-location – at Killedmund, in east Carlow – had been added to the list of sites throughout all of Kildare, Wicklow, Carlow and north Wexford, which had hosted fairs in 1735 (figure 91). In the same period, however, five sites in County Kildare, five sites in north County Wexford and one in County Wicklow, at Ballydonnell, had ceased to host fairs. Significantly, too, the number of fairs also fell during this period. Within County Wicklow, Kilcoole, Newcastle and Macreddin, each of which had hosted three fairs during 1735, were all only hosting two by 1744. Neither was the loss of a fair uncommon in the neighbouring counties, as Saggart in Dublin, Kildare town, Tullow and Hacketstown, in Carlow, and Gorey, in Wexford, each lost one annual fair between 1735 and 1744, and only in the hinterland of Dublin did the number of fair-sites increase during this period. While the *caveat* concerning the extent to which the number of fairs occurring at a particular time is a reflection of general economic conditions still applies, nonetheless, the general stagnation, and in some cases the decline, in the number of fairs, is surely reflecting, to some degree, at least, contemporary economic difficulties at the outset of the 1740s.

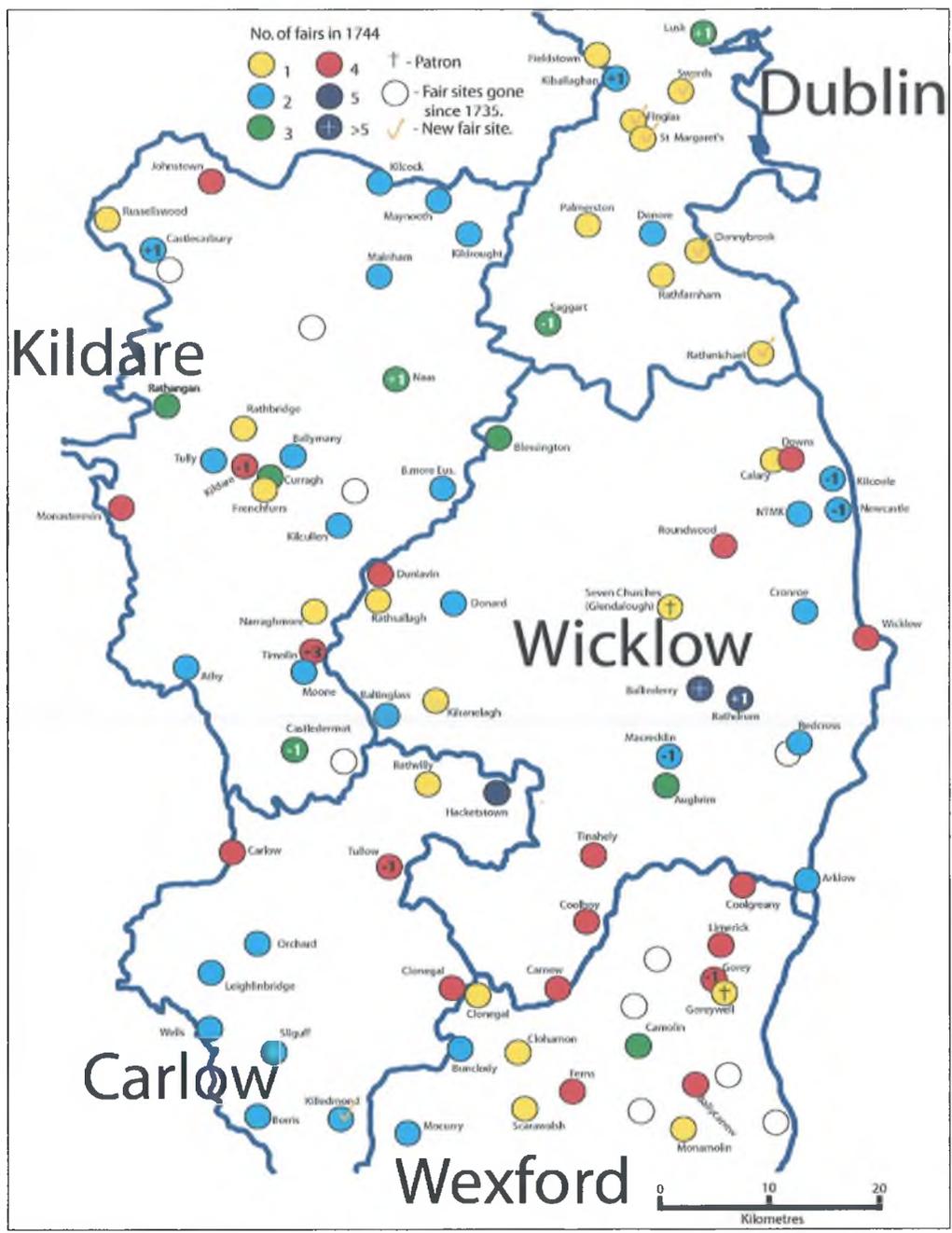


Figure 94 – Fair locations in 1744, showing the number of fairs advertised for each location, and the changes occurring since 1735.
Note: Outside of the immediate hinterland of Dublin, only one new fair-site, at Killedmund, County Carlow, had appeared. In addition, a number of fair locations in 1735 were no longer fair-sites in 1744. This was particularly the case in north Wexford, where five sites hosting fairs in 1735 were not advertised for 1744 (source: *Watson's gentleman and citizen's almanack, 1744*, pp 73-87).

Mid-century, and Nevill's survey

In chapter one, the 1750s and 1760s were noted as marking a turning point in terms of economic development and innovation, when strategies were put in place to radically improve the national infrastructure and foster inter-regional trade and transport. During the crises of the 1720s and the 1740s the inability to ensure the equitable distribution of food had been decried as a primary reason for increased mortality levels, and proposals surfaced for the erection of public granaries, which could be used to prevent shortages,¹⁰³ but in the 1750s and 1760s more effective methods were employed. Major attempts were made to improve the national communications infrastructure, including removing the parish from responsibilities for the national road system in the 1760s.¹⁰⁴ Improvements in road-quality and road-mileage widened horizons and spurred economic development so it is not surprising to observe a corresponding proliferation of new fairs nationally, as indicated by figures 92 and 93. A mean of 3.2 new fair-sites patented per year in the quarter-century between 1725 and 1749 was followed by a mean of 7.0 per year during the succeeding quarter-century (1750-74), and although this sustained expansion in the commercial infrastructure was not maintained after 1775 (figures 92 and 93), this is more probably a reflection that by that time most regions were adequately serviced by the fair-economy rather than being an indicator of declining economic dynamism.

The expansion of fair-sites nationally during the 1750s (figure 93) was less obvious in County Wicklow, however, and the distribution of fairs throughout the region changed little in the decade and a half after 1744. In 1750, for instance, the only changes occurring for County Wicklow were that Arklow, hosting two fairs in 1744, was now hosting four, and one new fair-location, at Cronebane, near Rathdrum, was also noted (figure 95). It is even doubtful that the Cronebane fair was newly established, because it was recorded by Watson as a patron, occurring on 20 June (1 July from 1753),¹⁰⁵ so it is likely to have been a gathering with a long heritage. There is little evidence of its character, and it only briefly appears in Watson's annual lists, being first listed in 1745.¹⁰⁶ It was probably a fairly insignificant event of limited, local appeal, as it was not recorded on Nevill's *Map* in 1760, and it does not appear in Watson's record after 1762,¹⁰⁷ after which it was

either terminated, suppressed, or, perhaps more likely, continued to be held, but went unrecorded. However, the additional fairs at Arklow, first advertised in 1745, are significant, most particularly with regard to their timing. Earlier it was observed that that the town's highly seasonal fishing industry operated primarily during May and November (figure 75), which boosted the money supply, and consumer demand, at those particular times. It is unsurprising, therefore, to see that the two additional fairs, scheduled for 29 July and 4 November,¹⁰⁸ dove-tailed neatly with the distinctive fluctuations in the money supply in that untypical local economy.

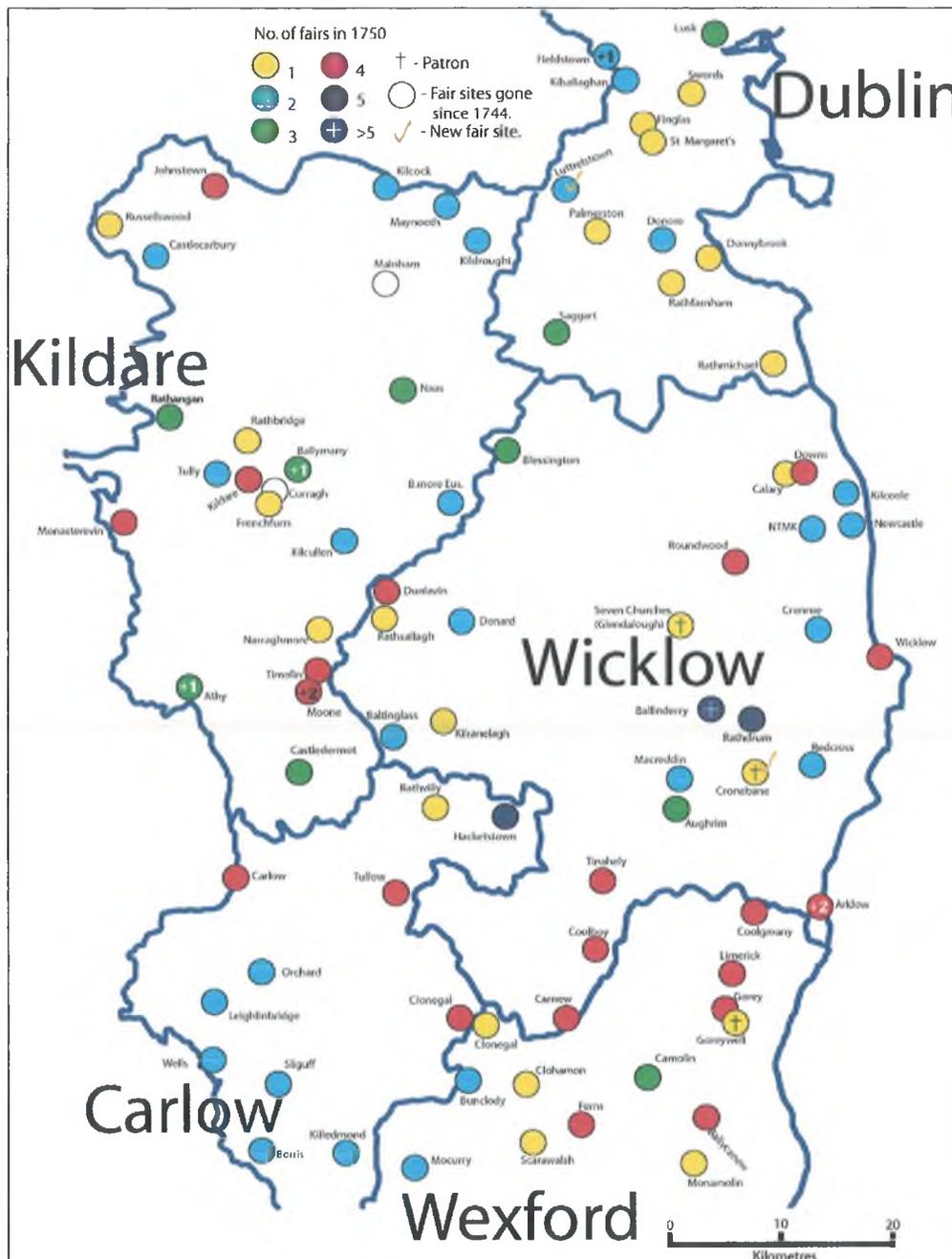


Figure 95 – Fair locations in the Wicklow region in 1750, showing the number of fairs advertised for each location, and the changes occurring since 1744.

Note: Cronebane, a patron location was first recorded by Watson in 1745, and appeared annually, until 1762. Arklow's two additional fairs, held on 29 July and 4 November (old style), complemented the distinctive fluctuations in that region's money supply (source: *Watson's gentleman and citizen's almanack, 1750*, pp 79-94).

Ten years later, in 1760 some new fairs had commenced, especially in the region bordering the southern and western extremities of County Wicklow (figure

96). At Coolkenno, in Shillelagh, a new fair-site (first listed that year), four fairs were now being held, and in Kildare and Carlow, new fairs had commenced at Clane, Kilcullenbridge, Calverstown and Ballon, among other sites. By this time, the southern County Wicklow was particularly well serviced by fairs – complementing the pastoral economy that was prevalent throughout the area – with fifteen different fair-sites lying in a band running eastwards from Carlow town to the Irish Sea hosting at least four fairs per year. Elsewhere, four or more fairs were also held at Wicklow town, Dunlavin, Roundwood, Ballinderry, Rathdrum and on the fair green at the small, but strategically located, village of Downs.

Jacob Nevill's 1760 survey and *Map of County Wicklow* may give some indication of the relative importance of some of these fair sites. Most of the fairs listed by Watson that year are also noted by Nevill as 'places where fairs are held', but some sites are conspicuously absent. The two patron sites, at Glendalough and Cronebane, are not noted by Nevill as locations for fairs, but this may be due to differing interpretations over what qualified as a fair. Coolkenno also goes unrecorded, but the four fairs there just commenced in 1760, so Nevill's omission may reflect the situation when that part of the county was surveyed. Of the remaining twenty-four fair-sites listed by Watson for County Wicklow, however, twenty-one are also shown as fair-sites by Nevill, the exceptions being Calary, Ballinderry and Kilranelagh.¹⁰⁹ Six fairs were recorded by Watson at Ballinderry, more than at any other location within the county, so its omission is inexplicable, and must represent a mistake in Nevill's survey. Calary and Kilranelagh, however, were just single-event fair sites, and, their non-recording by Nevill, likely suggests that their appeal, and their catchment area, were geographically limited, and their impact on their respective regional economies was probably insignificant.

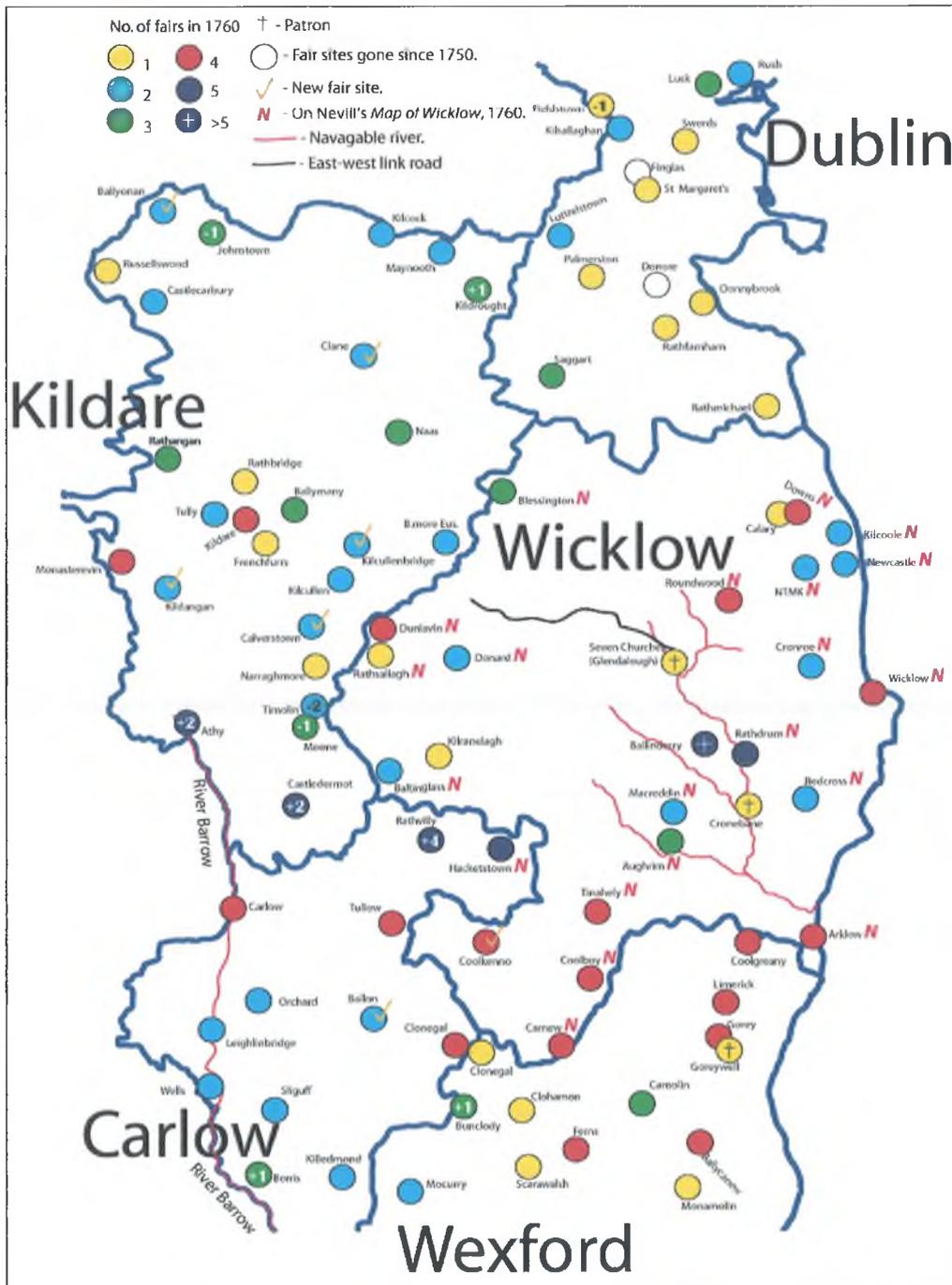


Figure 96 – Fair locations in the Wicklow region in 1760, showing the number of fairs advertised for each location, the changes occurring since 1750, and the fairs which were recorded on Jacob Nevill's contemporary *Map of Wicklow*. A number of new fairs had appeared in the region of south and west Wicklow during the preceding decade (source: *Watson's gentleman and citizen's almanack, 1760*, pp 93-109).

Despite the social and economic developments occurring since the 1730s, however, the rhythmic distribution of fairs had not changed substantially in the generation following 1735. At the outset of the 1760s May remained the most popular month for fairs, with August and November the next two most popular months respectively. Winter and spring also remained the time of least fair activity, and this was particularly the case in January when only a handful of fairs occurred. Figure 97, showing the monthly distribution of fairs for the years 1759, 1760 and 1761 in Wicklow and the four surrounding counties, highlights the continued primacy of May and the secondary importance of the autumn period within the trading economy. Since monthly distributions will be skewed by the variable timing of moveable feast days, the data has been aggregated for three consecutive years, in order to lessen the bias caused by the influence of moveable feasts on the distributions.

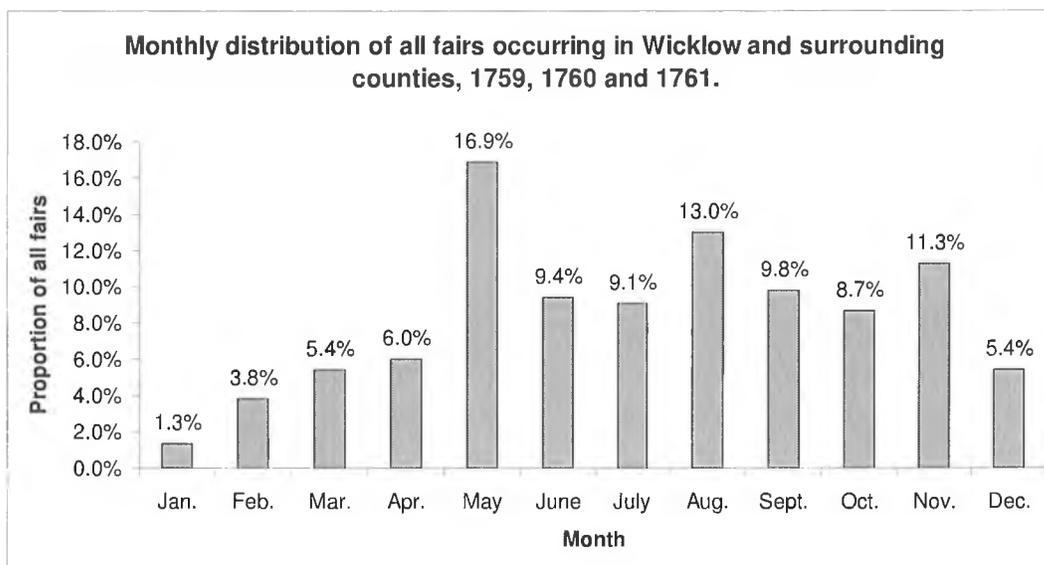


Figure 97 – Distribution of fairs in Wicklow, Carlow, Dublin, Kildare and Wexford (source: *Watson's gentleman and citizen's almanack, 1759*, pp 93-109; *ibid.*, 1760, pp 93-109; *ibid.*, 1761, pp 93-109).

Thus, as was earlier observed for the 1730s, the economic cycle broadly complemented the agricultural cycle in the early 1760, with the post-birthing and pre-wintering periods being the peak seasons for rural trade. This link becomes even more evident if the scheduling of fairs is considered for smaller, more agriculturally homogeneous, units. To illustrate this point, figures 98, 99 and 100

show the normalised monthly distribution of fairs for three distinctive regions between 1759 and 1761.¹¹⁰ Two of these, Shillelagh and Rathdrum, had predominantly pastoral-based economies; in Shillelagh cattle rearing was prevalent, while in a belt stretching from Roundwood to Aughrim, centred on Rathdrum, sheep farming was widely practised. The third region, in the north-east of the county, had a mixed agricultural economy, with extensive acreage under grains (figure 17), and with a pastoral economy which supplied young livestock to the dedicated pastoral lands further to the south and west.

It is unsurprising to observe, therefore, that the monthly distributions of fairs in the two pastoral regions were broadly similar, but they differed considerably from the distribution in the arable east. In both pastoral regions, November was the most prominent month, and May, the most popular month throughout the county as a whole, was, in both cases, only the second most popular month. The increased activity in November in both Shillelagh and Rathdrum clearly represents the requirement to dispose of livestock before winter, and this tendency fed through into December, too, as the number of fairs was running at or above the expected normalised level, during that typically quiet month (figures 97, 98 and 99). The fairs during those months at Clonegal and at Coolgreany (north Wexford) were particularly important events for the disposal of cattle.¹¹¹ Also in the Shillelagh region, the autumn and winter fairs were centres for the disposal of linen and frieze, and, as such, were likely attracting merchants from Dublin and from the eastern ports of Wexford and Waterford.¹¹²

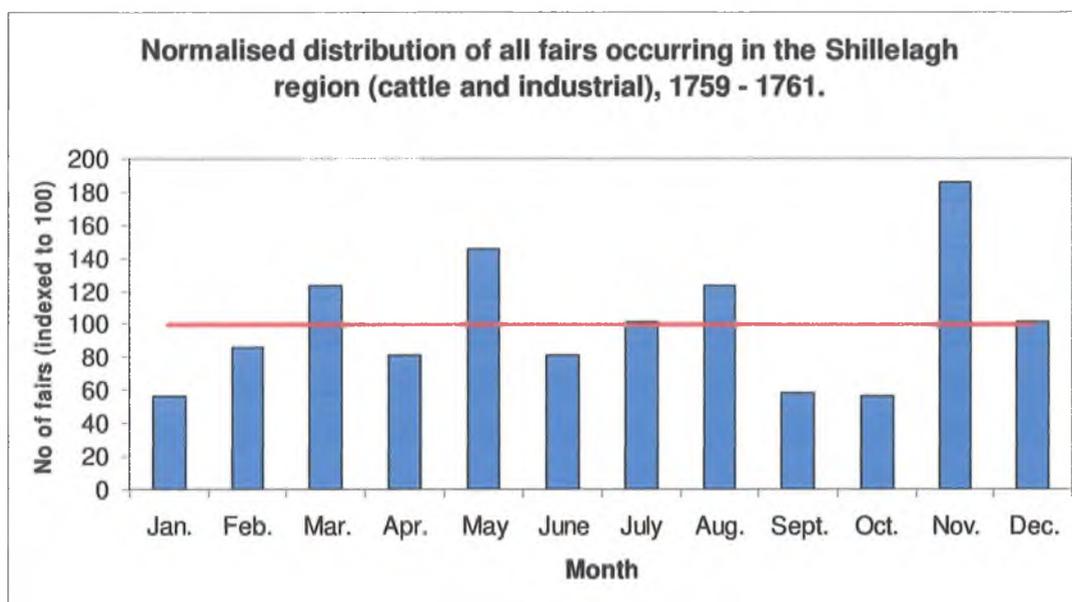


Figure 98 – Monthly distribution (normalised to 100) of N = 105 fairs occurring in the Shillelagh region (Carnew, Clonegal, Coolboy, Coolkenno, Hacketstown, Rathvilly, Tinahely and Tullow), 1759, 1760 and 1761. The horizontal line shows the expected distribution based on the number of days per month (source: *Watson's gentleman and citizen's almanack, 1759*, pp 93-109; *ibid., 1760*, pp 93-109; *ibid., 1761*, pp 93-109).

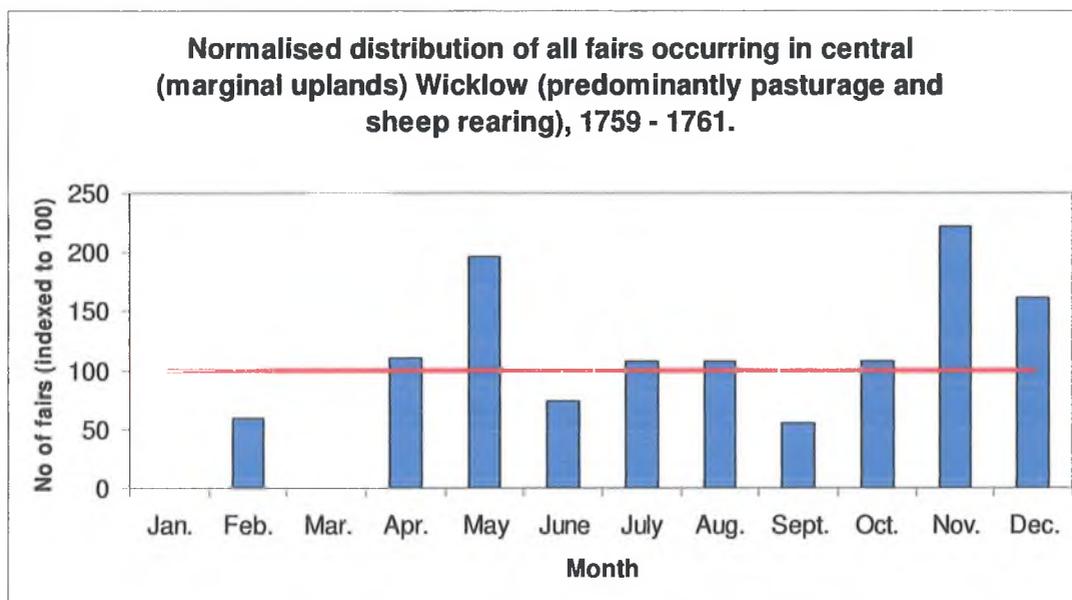


Figure 99 – Monthly distribution (normalised to 100) of N = 66 fairs occurring in the Rathdrum region (Aughrim, Ballinderry, Macreddin, Rathdrum, Redcross and Roundwood), 1759, 1760 and 1761. The horizontal line shows the expected distribution based on the number of days per month (source: as in figure 98).

In the north-east of the county, however, a fundamentally different pattern was evident (figure 100). Although the number of fairs in the north-east was low,

nonetheless, the dominant position of May is clearly obvious, with one in five of the fifty-one fairs held between 1759 and 1761 inclusive occurring during that month. During June, however, only one fair, at Kilcoole in 1759, was held. The only other period when the number of fairs was above expected levels occurred in autumn, when August, October and November were popular months. Such a pattern is typical of a mixed arable agricultural region. The May peak represented the scheduling of commercial trading opportunities designed to dispose of newborn livestock into the summer pastures, for fattening on the poorer soils. This transfer of livestock, accounts for the May peak in the east of the county, and the November peak in the Shillelagh and Rathdrum regions. Later in the year, the autumn peaks reflected the impact of the harvest on the local economy, with grains to be disposed of and large amounts of harvest wages in circulation.

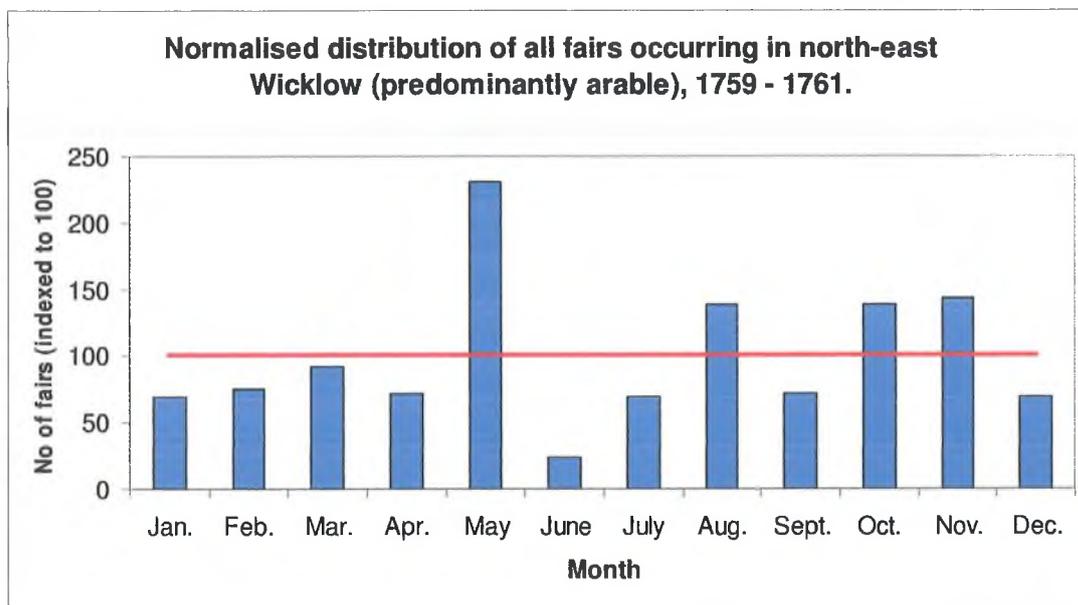


Figure 100 – Monthly distribution (normalised to 100) of N = 51 fairs occurring in north-east Wicklow (Calary, Cronroe, Downs, Kilcoole, Newcastle, Newtownmountkennedy and Wicklow), 1759, 1760 and 1760. The horizontal line shows the expected distribution based on the number of days per month (source: *Watson's gentleman and citizen's almanack, 1759*, pp 93-109; *ibid.*, 1760, pp 93-109; *ibid.*, 1761, pp 93-109).

The late-eighteenth century

From the 1760s onwards, the influence on the rural economy of the various infrastructural developments that were outlined in chapter one becomes more evident. In Wicklow, by 1770, Bray (commencing in 1765) and Hollywood

(1769), with two and four fairs respectively, are recorded as locations for fairs for the first time,¹¹³ and in the south and west of the county four additional fairs were being held at Baltinglass, where the earl of Aldborough had been fostering industrial development centred on the linen industry, and at Tinahely and Coolboy, on the vast Fitzwilliam estate (figure 101).¹¹⁴ Similar expansion had occurred in neighbouring counties, most notably at Clonegal and Hacketstown, in County Carlow, where nine additional fairs since 1760 increased the number at those locations to ten and eight respectively.¹¹⁵ In east County Kildare, two new fair-sites, at Usk and Killeel, hosting a total of six fairs during 1770, provided additional services, and competition, for the western parts of County Wicklow.¹¹⁶

The expansion in the number of fairs at this period mirrored the national trends (figure 92) and reflected national and international economic and political developments, including the fillip that was given to Irish pasturage during the 1760s by the decision to lift the century old restriction on Irish cattle exports to Britain, and declining importance of tillage as an agricultural pursuit.¹¹⁷ The importance of infrastructural access to the development of a retail economy is also highlighted by the spatial distribution of fairs at this time. In the east of the county, which was well-endowed with good roads, little change was evidenced, and in the entire east of the county, from Arklow to Bray the only changes in the number of fairs at any of the sixteen locations were the two new fairs at Bray, and the disappearance of the Cronebane patron from Watson's listing. In the south and west of the county, however, where strident infrastructural improvements were being effected during the period between 1760 and 1796 (figure 14), the greatest increases – both in the number of fair-sites and in the number of fairs at established sites – occurred.

By this time, with the number of fairs increasing, the organisation of Wicklow's economic order becomes more clearly manifest. Improving economic conditions saw the organisation of fairs becoming more clearly sequential within local regions, enabling both suppliers of services – the various peddlers, hucksters and travelling entertainers – and customers for produce and livestock to travel between neighbouring fairs, organised within a short time-period. A fair at Rathvilly on 1 January 1770, for example, was followed by one at Tinahely, some

twenty kilometres distant, two days later. The eleven new fairs at Tinahely, Coolboy and Hacketstown, were typically scheduled to occur a few days before or after established fairs, or to fill gaps in the commercial schedule. Thus, two of Coolboy's four new fairs were held on 31 January and 31 October, both of which were a day previous to fairs at adjacent Coolkenno.

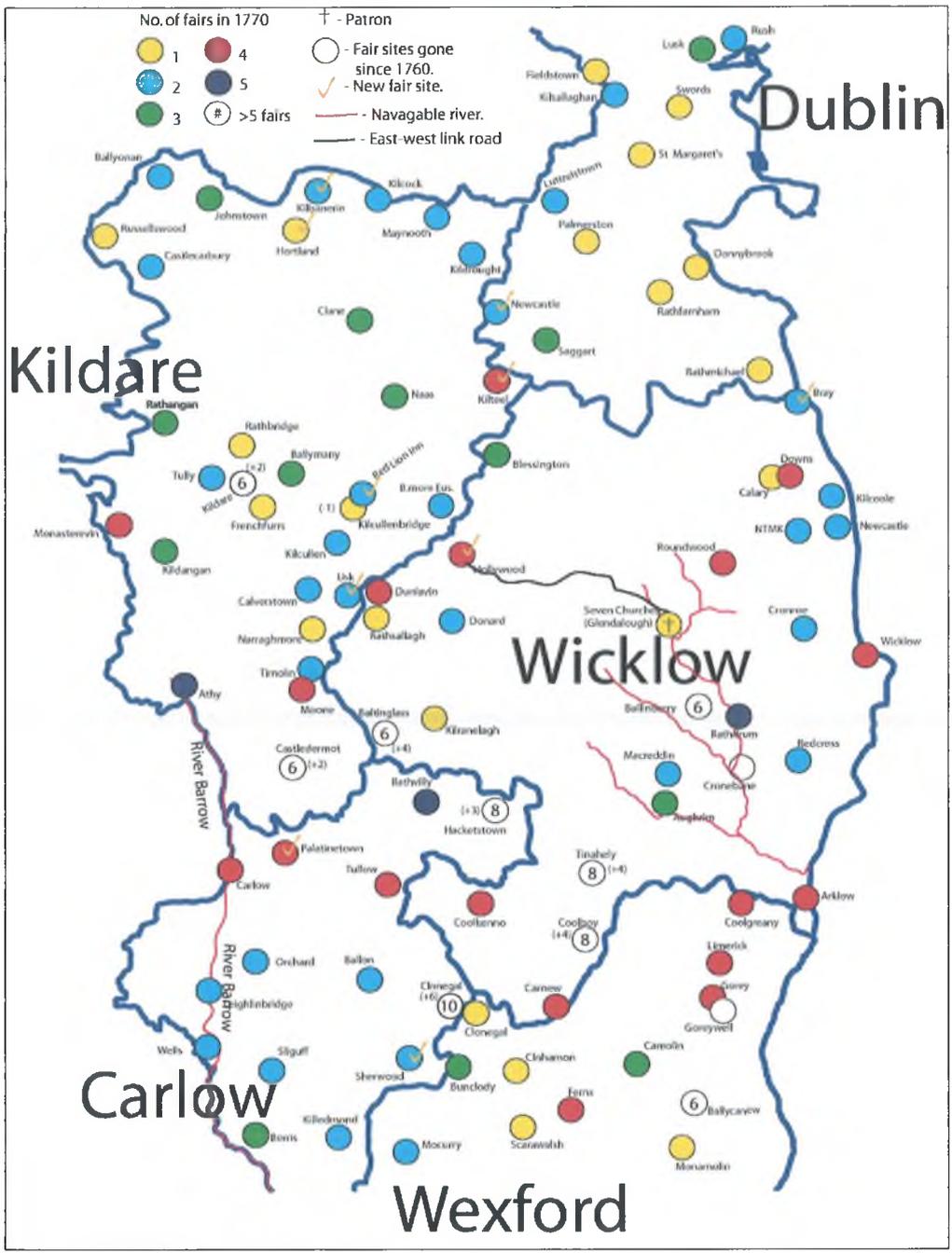


Figure 101 – Fair locations in the Wicklow region in 1770, showing the number of fairs advertised for each location, and the changes occurring since 1760. Bray and Hollywood had appeared as new fair sites, Cronebane and Goreywell patrons may have been discontinued by this time, and a number of new fairs had been scheduled in previously established sites (source: *Watson's gentleman and citizen's almanack, 1770*, pp 81-99).

In the early 1780s two additional sites in County Wicklow were added to the list of fair-sites (figure 102). These were at rapidly evolving Stratford, at which two fairs were held, in April and September, and at Coolatin, near Carnew, which hosted four custom-free fairs, in February, May, August and November.¹¹⁸ The Stratford fair, established by patent in 1774 and first listed in Watson's *Almanack* in 1776,¹¹⁹ was established principally to sell the calicos, cottons and other materials that were being produced in the earl of Aldborough's new town.¹²⁰ Two years previously, in 1772, the marquis of Rockingham had acquired the patent for Coolatin, and fairs are listed by Watson for that location from 1773.¹²¹ Further west, the importance of infrastructural access to the development of a trading economy can be seen through the establishment of two additional fairs at Naas, which was adjacent to the village of Sallins, newly linked with Dublin, by the Grand Canal, and by the establishment of a new fair-location at Kilmeague, near Robertstown, which was to receive a canal service within three years.¹²² The arrival of the canal at Sallins provided an alternative method of transport towards Dublin, and, faster and more reliable than the road route, it benefited west Wicklow, and drew that region into its economic sphere.

continuation of earlier observed trends in regional economic-development remains evident. Most of the developments in regional commercial activities were concentrated in the west and south of the county, to the detriment of developments occurring in the coastal region, for which, two factors can be identified. The continued expansion of industry in the west and south of the county furthered the commercialisation of the economy, while the opening of the canal and the upgrading of roads linking west Wicklow with the coast widened that region's trading and economic spheres. Thus, the two new fairs which commenced at Newcastle in 1782 represented the first change in the incidents of fairs at any of the nine sites between Bray and Wicklow town in over a half a century (figure 103).¹²³ Furthermore, by 1795, only one extra fair fair-site had been established to the west of the mountains during the preceding fifty years. In the south and west of the county, however, the number of fairs and fair-sites had grown considerably during this period, and most of the few expansions in commercial activities during the closing two decades of the eighteenth century were also located away from the coast.

The reason for the industrialisation of the west and south of Wicklow at a time when the east of the county remained strongly wedded to agriculture remains uncertain, although the availability of capital must have played a significant part. The notable involvement of Fitzwilliam in the south and Aldborough in the west in establishing cloth, linen and frieze manufactures was not comparably matched by similar enthusiastic developments along the east coast. The reason is unclear, although land distributions may have played some part in prosecuting this unbalanced development. Wicklow's largest estates were predominantly located in the south and west of the county, while in eastern parts, a mosaic of smaller, more numerous, estates was more typical.¹²⁴ This varied pattern placed the west and south at an immediate advantage, since the superior financial muscle available within larger estates facilitated a greater investment in economic capital, and in economic development. With sufficient capital available, all that was then required for economic development was the enthusiastic support of an investor and throughout west and south Wicklow, this enthusiasm was often evident. Industrialisation and development was, of course, useless without an enhanced

infrastructure to transport produce to population-centres, which helps explain the unbalanced regional infrastructural improvements that were discussed in chapter one (figure 14).

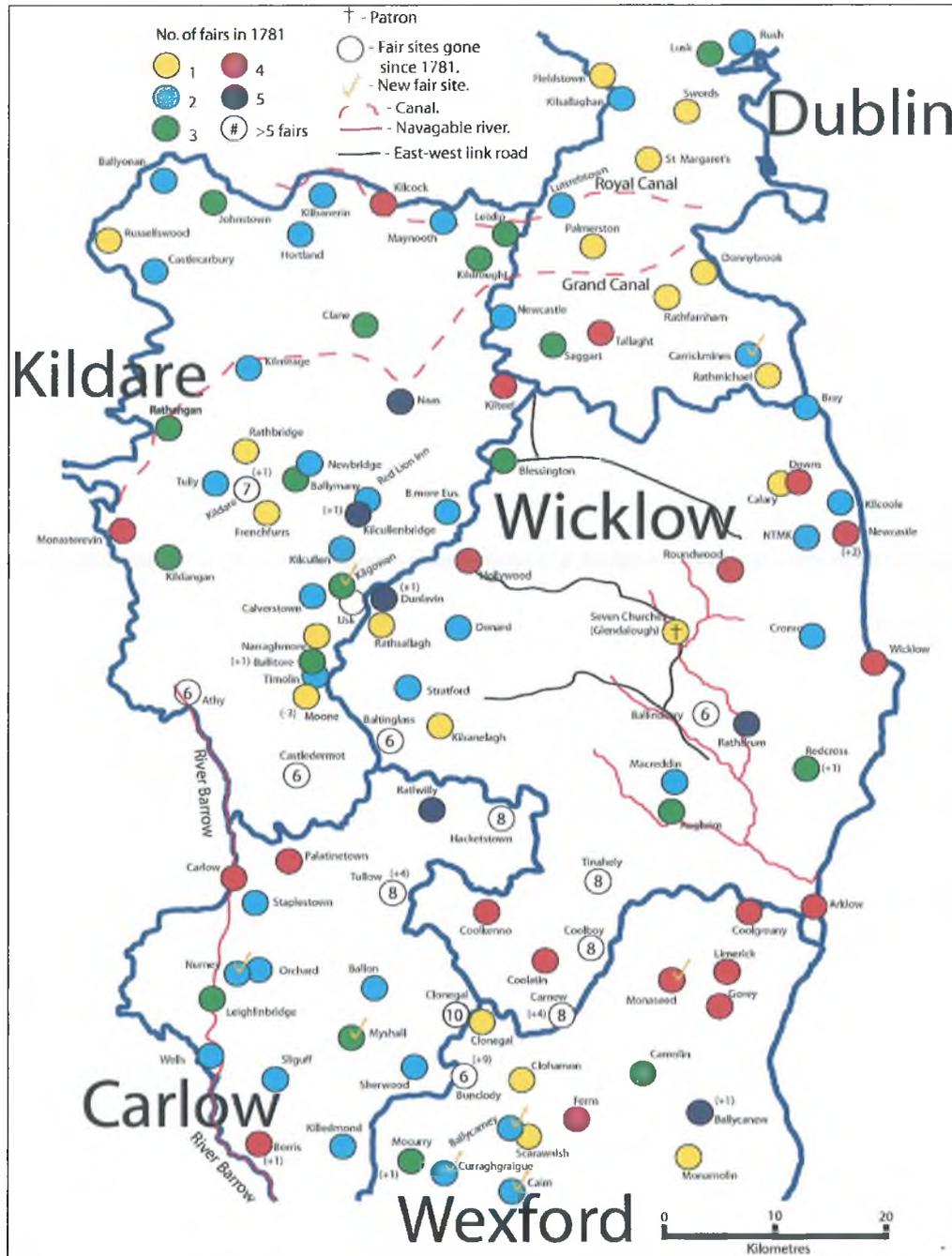


Figure 103 – Fair locations in the Wicklow region in 1795, showing the number of fairs advertised for each location, and the changes occurring since 1781 (source: *Watson's gentleman and citizen's almanack, 1795*, pp 159-83).

Population distributions – the contrasting demographics underlying fairs and markets in the nineteenth century

It is clear from the above consideration of the development of regional rural economies that the principal drivers underlying the establishment of organised mechanisms for trade and exchange were the agricultural and industrial structures of the local economy, aided by the involvement of enthusiastic landlords. Demographics, however, does not appear to have been a particular requirement for the successful running of a fair, in stark contrast to the position with weekly markets, which required substantial local populations to ensure their survival. Certainly, a large population stimulated demand at local fairs, but the tendency for fairs to develop at small urban centres is clear, and once reliable census statistics become available in the nineteenth century, the contrasting demographic requirements underlying fairs and markets becomes even more evident.

The reason for this apparently anomalous situation is easily explained, however. As has been noted, weekly markets typically operated either to supply consumer goods to the small-scale local purchaser or household, or to provide an opportunity for the disposal of locally grown produce, such as grains and root crops, usually to visiting merchants. Thus, a principal component of a market's customer-base was the local community, and larger, urban population concentrations ensured a stable demand for agricultural outputs. A fair, however, typically provided opportunities to dispose of bulk stocks, such as the outputs from domestic industry, including cloths or woollens, or, more traditionally, livestock. Since intensive pastoral farming required extensive acreage under grass, and consequently low population densities, then it is not surprising to see fairs concentrated in areas with relatively small populations, or in minor urban centres. Thus, while there were only fourteen market sites within County Wicklow in 1798 (figure 83) the number of fair-sites was double that (figure 103).

Two further considerations influenced the contrasting location for fairs and markets. First, markets were more sensitive to population changes, than were fairs. If an urban centre was sufficiently large to support a market, but then went into

decline, the market was usually terminated. This occurred in Wicklow, for example, at Stratford and Macreddin, both of which were hosting markets at the end of the eighteenth century, but by 1853, their mutually declining fortunes, and populations, had precipitated their demise.¹²⁵ For fairs, however, population decline was not a factor, since, as was seen in chapters two and three, the rural population of Wicklow was burgeoning for the five or six decades following the accession of George III. Thus, while urban centres may have occasionally declined, the regional population movements throughout Wicklow were all advancing, and the colonisation of marginal lands was continually boosting demand in areas which previously may have been only thinly populated.

Secondly, practicality, too, no doubt played a part in the contrasting sites for fairs and markets. Markets, often supplying smaller quantities of goods, were less disruptive than livestock fairs and were usually held near the centre of a conurbation. Fairs, however, were easier to operate if they were held in a rural, but accessible, area, or, if held within a village, on a fair green, which made it easier for patrons to identify and separate their stock. J. M Synge's early twentieth-century description of the chaotic scenes at Aughrim fair, which was held within the village, on the streets, provides a useful insight into the operation of fairs in urban areas, when large numbers of livestock were gathered:

While we were talking, a cry of warning was raised: 'Mind yourselves below; there's a drift of sheep coming down the road.' Then a couple of men and dogs appeared, trying to drive a score of sheep that some one had purchased out of the village, between the countless flocks that were standing already on either side of the way. This task is peculiarly difficult. Boys and men collect round the flock that is to be driven out, and try to force the animals down the narrow passage that is left in the middle of the road. It hardly ever happens, however, that they get through without carrying off a few of some one else's sheep, or losing some of their own, which have to be restored, or looked for afterwards... it is not unusual to meet a man the day after a fair wandering through the country, asking after a lost heifer, or ewe'¹²⁶

In the first half of the nineteenth century the number of fairs occurring throughout Wicklow continued to increase, with new sites established at Kiltegan, in west Wicklow, Ballinacor in the uplands, at Ashford, near Wicklow town, by 1815, and at Shillelagh village by 1830, each of which were relatively minor urban centres, and unable to support a regular market. Elsewhere, established fair-sites provided additional services, such as at Ballinderry, which gained one additional fair between 1800 and 1815, at Tinahely, where eight fairs in 1800, had increased to ten by 1815, and then to thirteen by 1830 and at Roundwood, a village of just eighteen inhabited houses in 1831,¹²⁷ where four fairs in 1815, became ten, by 1830. It is probable that product specialisation was the cause of most of these increases, as was the case at Rathdrum, where the five fairs per year that were held in 1800 and 1815, had increased to eighteen during 1830,¹²⁸ an increase explained by the development of the town as a centre, of national importance, for the distribution of flannels. Notably, this development should not be viewed as an indication of the belated involvement of Wicklow's eastern landowners in industrial entrepreneurship and opportunity, because it was earl Fitzwilliam, whose ancestors had been driving industrial development in Shillelagh generations previously, who funded the construction of the flannel hall in 1793.¹²⁹ It was predominantly that industry which permitted the description of the town in 1815 as 'very prosperous and thriving', abounding 'with a respectable and numerous Protestant population',¹³⁰ but by the late 1830s, with protective measures fully removed, the trade had collapsed, and Lewis could report the 'monthly market for flannels, which was well attended by buyers from Dublin, has been discontinued for some time'. Because of this, the eighteen fairs in 1830 had declined to just seven fairs by 1837.¹³¹

Figure 104 shows the distribution of fairs in the Wicklow region, as recorded by the Commissioners for Fairs and Markets in 1852, and many of the points made earlier, considering the distribution of fairs, are further reinforced by this data. The importance of rapid infrastructural access to urban centres can be seen by the increased economic influence of the western Carlow/Kildare region. Within County Wicklow, the concentration of fairs in smaller urban centres is also highlighted. As can be seen, ten or more fairs occurred at four locations within the

county, at Baltinglass, Rathdrum, Tinahely and Roundwood, none of which were particularly large, even by Wicklow's standards (figure 16). Of the four locations, only Baltinglass was reported by the 1851 census to contain more than 1,000 inhabitants, whilst just 947 and 562 inhabitants were recorded for Rathdrum and Tinahely respectively. Roundwood, the location for twelve fairs per year, must have been tiny, since it did not even merit consideration as an urban centre in the returns.¹³² Neither was Roundwood unique. At Rathdangan, a hamlet of just a few houses, seven fairs were scheduled annually, and at Kiltegan, with less than 150 inhabitants in 1851, eight fairs had been scheduled each year since 1815.¹³³ By 1852, a total of forty-eight fairs were being held annually, at six sites, within a ten-kilometres radius of Kiltegan village.

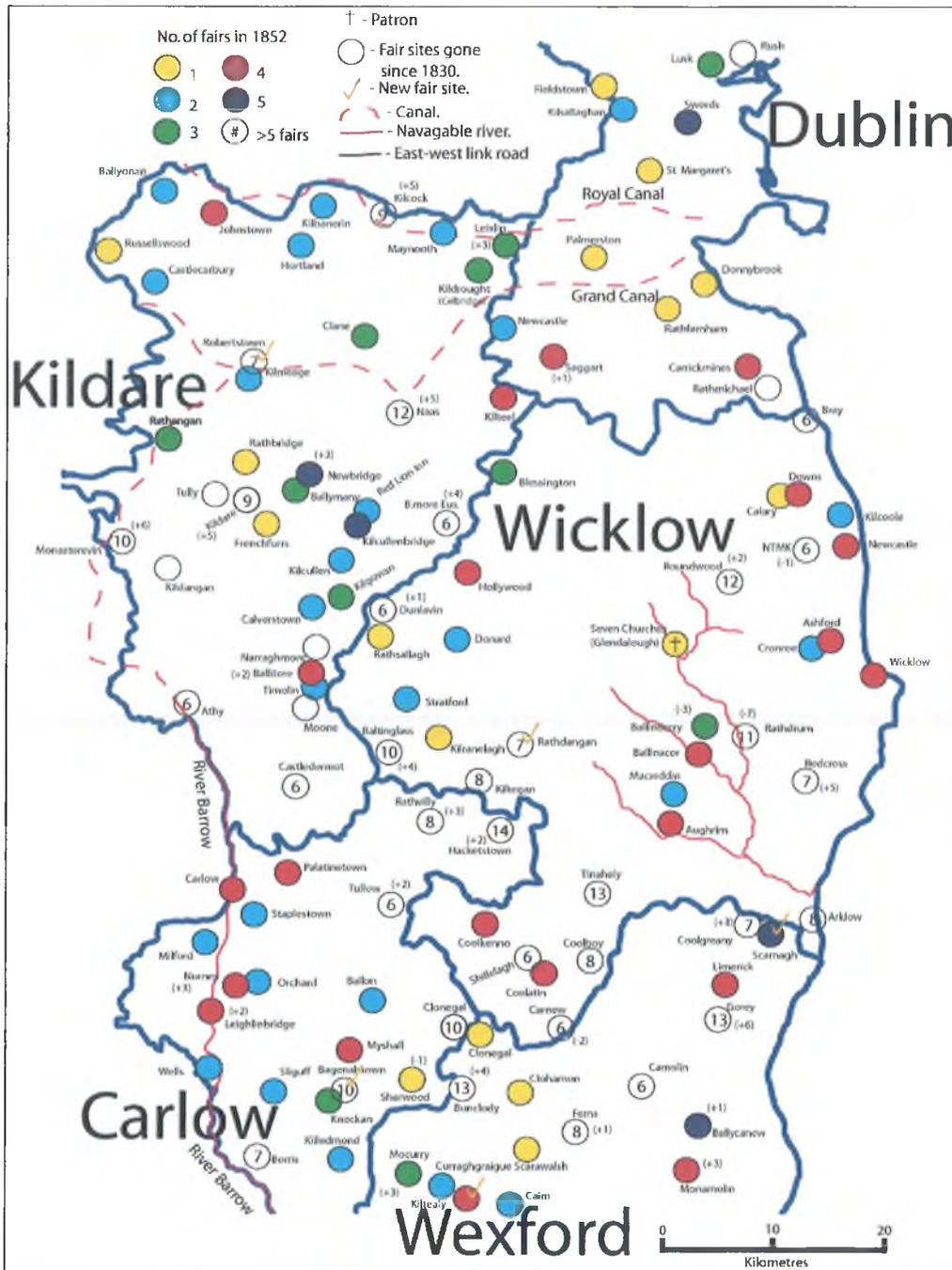


Figure 104 – Fair locations in the Wicklow region in 1852 (source: *Report of the commissioners appointed to inquire into the state of the fairs and markets in Ireland*, pp 60-120), showing changes since 1830.

It must, of course, be remembered that what is being considered above is the scheduling of fairs, but it was their vital economic characteristics, including size and composition, which principally determined their importance within the

local, regional or even national economies, but unfortunately there is often little surviving evidence for these crucial economic characteristics at this time. Synge's description of the chaos at Aughrim, for instance, includes a throwaway remark that the fair there was a small event, but this would not be evidenced either from the description of the fair, quoted above, or from any alternative sources.¹³⁴

Certainly some locations, such as Tinahely and Roundwood, derived substantial importance from their strategic locations at crossroads or on main thoroughfares to Dublin, whereas other, long-established centres, including Baltinglass and Rathdrum, were, for much of the eighteenth century in the case of the former and belatedly in the case of the latter, important centres for the disposal of regional industrial production. In the absence of solid evidence of the throughput of a fair, the only other indication which may provide guidance as to its size and general importance is the incidents of fairs at a particular location.¹³⁵ Many of the locations that hosted just one or two fairs per year were likely small, localised events, of little regional economic importance, unless special circumstances – the spiritual attraction of Glendalough, for example – deemed otherwise. Notably, both Kilranelagh and Calary, both of which were earlier flagged as likely to have been minor events in the 1760s, were two such locations.

It can be further seen that both the number of fair-sites and the frequency of fairs at the various sites at this time complemented the agricultural makeup of the region (figure 105), as was earlier shown to be the case for the middle years of the eighteenth century (figures 98, 99 and 100). Along the coastal strip between Bray and Wicklow town, where tillage was predominant, the number of fairs per year at the typical fair-site was relatively low, and was usually less than five per year. In the south of the county, in Shillelagh and in the region around Arklow and Gorey, an area of mixed agriculture with a significant cattle-rearing input, fairs were more frequent, with many sites hosting between five and ten fairs annually (figure 105).

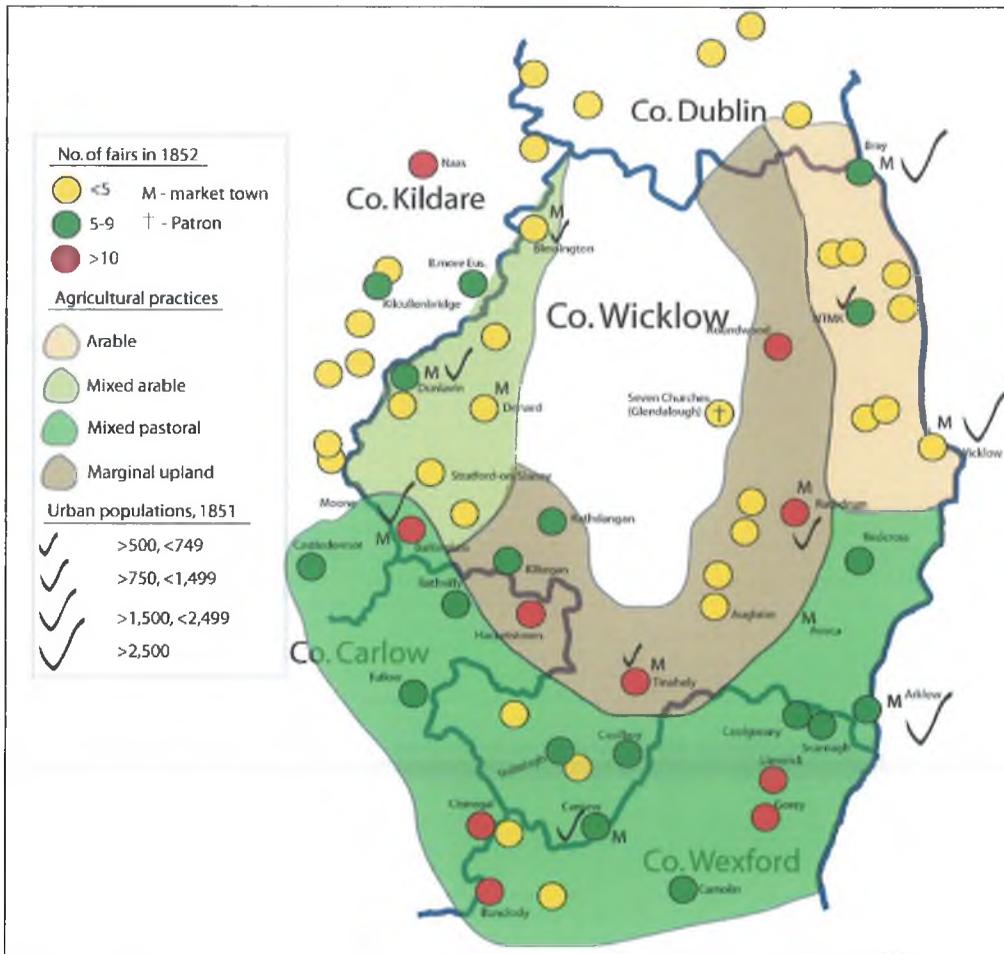


Figure 105 – Frequency of fairs at fair-site in County Wicklow, 1852.

However, it was in the marginal soils, along the borders of the uplands where fairs typically occurred most frequently (figure 105). In these borderlands, typified by poor soils, low population densities and a virtually exclusively rural topography, most of the locations that hosted more than ten fairs per year in 1852 were concentrated. These marginal lands, running in a broad swathe from Powerscourt, through Rathdrum and Tinahely, and west, towards Hacketstown and Baltinglass, marked the interface between the fertile lowlands and the higher altitude lands, which were abandoned during the winter and then re-colonised during the summer for the fattening of new-born spring livestock, transported from the lowlands. The concentration of frequent fairs in this region, in places where population density was low, highlights the essential difference between fairs and markets. Whilst the market may have required a substantial local

population in order to survive, a fair required nothing more than a reliable infrastructure which facilitated access either to distant urban markets, or to regions with complementary agricultural patterns. Thus, the improved infrastructure in the upland regions, which became particularly apparent after the middle years of the eighteenth century (figure 12), encouraged the development of a pastoral economy on marginal soils, which required the belated establishment of fairs in remote, thinly populated regions, including at Roundwood, Rathdangan and Kiltegan. It was through this progressive colonisation of the borderlands, that Wicklow's poor and insignificant villages could be elevated to become key cogs in the agricultural economy of their hinterlands, with tentacles stretching as far away as Dublin, and through Dublin, to a wider world.

Conclusion

This chapter has investigated the establishment and development of regional cash-based economies within Wicklow, which have been evidenced primarily through the establishment of fairs and markets. It has been shown that the timing of fairs in a locality was strongly influenced by the seasonal economic fluctuations within the region, which created distinctive rhythms of life. These rhythms were regionally distinctive, and in rural areas reflected the seasonality of prevailing agricultural practices. The next chapter will develop this theme by examining how the seasonality of local economies influenced the seasonality of local demographic developments.

References, chapter 4

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- ² Philip Ollerenshaw, *Banking in nineteenth-century Ireland: the Belfast banks, 1825-1914* (Manchester, 1987), p. 82 (hereinafter cited as Ollerenshaw, *Banking in nineteenth-century Ireland*).
- ³ Jevons is quoting a letter from G.F., which was published in the *Economist* (Stanley Jevons, 'On the frequent autumnal pressure in the money market, and the action of the Bank of England' in *Journal of the Statistical Society of London*, xxix, no. 2 (1866), p. 237 (hereinafter cited as *Jn. Stat. Soc., London*).
- ⁴ Ollerenshaw, *Banking in nineteenth-century Ireland*, p. 83.
- ⁵ J. W. Gilbart, 'On the laws of currency in Ireland, as exemplified in the changes that have taken place in the amount of bank notes in circulation in Ireland, since the passing of the Act of 1845' in *Jn. Stat. Soc., London*, xv, no. 4 (1852), p. 307.
- ⁶ Gilbart, 'On the laws of currency in Ireland', pp 317-8.
- ⁷ Ollerenshaw, *Banking in nineteenth-century Ireland*, p. 85.
- ⁸ Bayly, 'Parish of Arklow', p. 55.
- ⁹ Steele, *Tudor & Stuart*, i, p. xxii.
- ¹⁰ Erck (ed.), *Repertory*, i, no. 1, p. 84.
- ¹¹ Patrick O'Flanagan, 'Markets and fairs in Ireland, 1660-1800: index of economic development and regional growth' in *Journal of historical geography*, xi, no. 4 (1985), pp 364-78 (hereinafter cited as O'Flanagan, 'Markets and fairs in Ireland').
- ¹² Karina Holton, 'From charters to carters: aspects of fairs and markets in medieval Leinster' in Denis Cronin, Jim Gilligan and Karina Holton (ed.) *Irish fairs and markets, studies in local history* (Dublin, 2001), p. 18.
- ¹³ Patrick O'Connor, *Fairs and markets of Ireland, a cultural geography* (Newcastle West, n.d.), p. 10 (hereinafter cited as O'Connor, *Fairs and markets of Ire.*).
- ¹⁴ *Cal. Pat. Rolls, Jas. 1*, pp 39 (ii), 90 (vi), 325 (xlv), 342 (lvi), 362 (i), 447 (xvii).
- ¹⁵ *Cal. S. P. Ire, 1598-1599*, p. 353.
- ¹⁶ An Act for the attainder of James Eustace, late viscount of Baltinglass, and others (27 Elizabeth, c. 1 (*Stat. Ire.*, i, pp 391-8)).
- ¹⁷ *Cal. pat. rolls, Jas. 1*, pp 31 (lxv), 90 (vi); Erck (ed.), *Repertory*, i, no. 1, pp 269-70.
- ¹⁸ *Commission for municipal corporation, first report, appendix, part I*, pp 635, 637.
- ¹⁹ R. H. Britnell, 'Price setting in English borough markets, 1349-1500' in *Canadian Journal of History*, xxxi, no. 1, p. 1; Claude Lévi-Strauss cited by Britnell (*ibid.*)
- ²⁰ The commissioners note the presence of a market at Bridgetown (County Wexford), where 'purchasers meet to name a day, and then post notices', and in Bonmahon, County Waterford, where markets were held 'as the miners receive their wages' (*Report of commissioners into fairs and markets in Ireland, 1853*, p. 45).
- ²¹ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 150.
- ²² *Cal. docs., Ire., 1171-1251*, pp 76 (471), 327 (2,209); George Scott, *The stones of Bray* (Dublin, 1913), p. 104.
- ²³ *Fairs and markets*, p. 12.
- ²⁴ O'Connor, *Fairs and markets of Ire.*, p. 11.
- ²⁵ William Crawford, 'The Patron, or festival of St. Kevin at the Seven Churches, Glendalough, County Wicklow 1813' in *Ulster Folklife*, xxxii (1986), p. 39 (hereinafter cited as Crawford, 'The patron of St Kevin').
- ²⁶ *Report of commissioners into fairs and markets in Ireland, 1853*, pp 52-3.
- ²⁷ Christopher Dyer, 'Market towns and the countryside in late Medieval England' in *Canadian journal of history*, xxxi, no 1 (1996), pp 20, 23-4.
- ²⁸ O'Connor, *Fairs and markets of Ire.*, p. 19.
- ²⁹ It is a moot point that catchment radii are of limited value, since it was 'distance-travelled' rather than 'crow flies' distances that was of greater import in determining a market's catchment area. Hence, a market town's catchment boundaries were likely elongated along the main thoroughfares

from the marketplace and contracted elsewhere, and were also likely influenced by the quality of the infrastructure around the market centre.

The ultimate factors underlying the sphere of influence of any market were the supply and demand factors within the regional community, and by the opportunity cost of travelling the distance to the market. The market was the focal point where economic supply and demand was balanced, by the price of goods and services, but for the consumer, the greater was the distance to the market the higher was the opportunity cost of travelling there. During subsistence crises, however, which, as has been seen, liberally peppered the century or more following the Restoration, the demand for staple foods increased, and during these periods the catchment-boundaries of market places likely expanded beyond their normal limits, as the relative benefit that might accrue from travelling to the market (purchasing food) increased. This was exceptional, however, and during more favourable times, on the other hand, demand was influenced more by population levels in the hinterland of the marketplace and by local social, agricultural and economic characteristics. Thus, it would appear probable that a market was surrounded by a fixed sphere of influence, outside of which were increasingly more marginal spheres of influence, which were increasingly attracted into the current market sphere, as economic conditions deteriorated, and progressively expelled as economic conditions improved.

³⁰ Lewis, *Topog. dict. Ire.* i, p. 99. Bagenalstown was not a market town in 1837.

³¹ Lewis, *Topog. dict. Ire.*, ii, p. 436.

³² Lewis, *Topog. dict. Ire.*, i, p. 99.

³³ If Lewis could express surprise that there was no other market within ten miles (sixteen kilometres) then this suggests that the typical catchment area for a market in the 1830s was less than (probably about half, or eight kilometres) this distance.

³⁴ *Report of commissioners into fairs and markets in Ireland, 1853*, pp 52, 58; Lewis, *Topog. dict. Ire.*, i, p. 152.

³⁵ Lewis, *Topog. dict. Ire.*, i, p. 152.

³⁶ Edward Bullingbrooke, *Ecclesiastical law; or, the statutes, constitutions, canons rubricks, and articles of the Church of Ireland* (2 vols, Dublin, 1770), i, pp 310-1 (Bullingbrooke, *Ecclesiastical law*). Also see proclamation of 1615 in Steele, *Tudor & Stuart*, ii, p. 22 (no. 219a) and C. H. Firth and R. S. Rait, *Acts and ordinance of the Interregnum, 1642-60* (3 vols, London, 1911), ii, p. 1163 (hereinafter cited as Firth and Rait, *Acts and ordinances of Interregnum*).

³⁷ Steele, *Tudor & Stuart*, ii, p. 28 (no. 261); *Report of commissioners into fairs and markets in Ireland, 1853*, pp 10-11.

³⁸ O'Connor, *Fairs and markets of Ire.*, p. 29.

³⁹ Markets were patented in the Enniscorthy and Carnew, important regional locations, from Thursday. Notably, however, by 1852 Enniscorthy was hosting a second market – on a Saturday.

⁴⁰ Baltinglass was now held on a Friday rather than a Saturday, however.

⁴¹ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 43.

⁴² *Cal. pat. rolls, Jas I*, pp 39 (ii), 447 (xviii); *Cal. S. P., Ire., 1663-1665*, p. 438.

⁴³ Nevill, *Map of Wicklow, 1760*.

⁴⁴ William Seward, *Topographia Hibernica*, Newtown-Mountkennedy.

⁴⁵ Further to the south, two markets were also held weekly at Enniscorthy (Thursday and Saturday) New Ross (Wednesday and Saturday) and Wexford (Wednesday and Saturday) (*Report of commissioners into fairs and markets in Ireland, 1853*, pp 57-8).

⁴⁶ *Commission for municipal corporation, first report, appendix, part I*, p. 144.

⁴⁷ Lewis, *Topog. dict. Ire.*, i, pp 90, 222.

⁴⁸ Lewis, *Topog. dict. Ire.*, i, pp 222, 261; *ibid.*, ii, p. 418.

⁴⁹ *The census of Ireland for the year 1851*, pt i: *showing the area, population, and number of houses by townlands and electoral divisions*, vol. I, *province of Leinster* [1465, 1553, 1481, 1486, 1488, 1492, 1503, 1496, 1502, 1564, 1527, 1544], H.C. 1852-3, xci, pp 1-11, 54-76, 246, 296-335, 341-358 (hereinafter cited as *Census Ire., 1851*).

⁵⁰ Celbridge had held a weekly market on Saturday, at least in the 1830s (Lewis, *Topog. dict. Ire.*, i, p. 320).

⁵¹ Of these 13 towns only 5 boasted markets – the remaining 8 were market-free.

⁵² Delany and Delany, *Canals of south of Ireland*, p. 83.

⁵³ Lewis, *Topog. dict. Ire.*, i, p. 319; *ibid.*, ii, pp 250-1, 256; Slater, *Nat. comm.. dir. of Ire.* (1846), pp 26, 68 (Leinster section).

- ⁵⁴ Lewis, *Topog. dict. Ire.*, i, p. 152.
- ⁵⁵ McCormack (ed.) *Memories of west Wicklow: Hanbidge and Hanbidge*, p. 42.
- ⁵⁶ *Census Ire.*, 1821, p. 131; *Census Ire.*, 1851, p. 365.
- ⁵⁷ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 149; McCormack (ed.) *Memories of west Wicklow: Hanbidge and Hanbidge*, p. 43.
- ⁵⁸ O'Flanagan, 'Markets and fairs in Ireland', p. 368.
- ⁵⁹ In the case of Stratford, the supply of meat from Donard, little more than five kilometres distant, appears aimed at satisfying the demand within the town.
- ⁶⁰ Lewis, *Topog. dict. Ire.*, ii, pp 85, 495.
- ⁶¹ *Commission for municipal corporation, first report, appendix, part I*, p. 221.
- ⁶² Pender, with intro by Smyth, *Census Ire.*, c. 1659, pp 531-56.
- ⁶³ *Cal. Pat. Rolls, James I*, p. 299, xxiii. The manor of Castle-Marwood, centred on Monaseed, was subsequently created in 1618 (*Cal. Pat. Rolls, James I*, p. 349, viii).
- ⁶⁴ *Cal. Pat. Rolls, James I*, p. 560, xxiv-xxvi.
- ⁶⁵ Pender, with intro by Smyth, *Census Ire.*, c. 1659, p. 553.
- ⁶⁶ Pender, with intro by Smyth, *Census Ire.*, c. 1659, p. 553.
- ⁶⁷ William Wilson, *The post-chaise companion: or, traveller's directory through Ireland* (1st ed., Dublin, 1784), p. 192; *Report of commissioners into fairs and markets in Ireland, 1853*, p. 149.
- ⁶⁸ Ambrose Leet, *A directory to the market towns, villages, gentleman's seats, and other noted places in Ireland* (Dublin, 1814), p. 97.
- ⁶⁹ Lewis, *Topog. dict. Ire.*, ii, p. 441, 580.
- ⁷⁰ *Parliamentary gazetteer* (1846), iii, p. 289.
- ⁷¹ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 58.
- ⁷² O'Flanagan, 'Markets and fairs in Ireland', p. 368.
- ⁷³ O'Flanagan, 'Markets and fairs in Ireland', p. 368.
- ⁷⁴ *Cal. Pat. Rolls, James I*, p. 342.
- ⁷⁵ From 1733 *The gentleman's and citizen's almanack* indicates the fairs which were rescheduled if they were to occur on a Saturday.
- ⁷⁶ Firth and Rait, *Acts and ordinances of Interregnum*, ii, p. 1166.
- ⁷⁷ Occasionally the tolls chargeable were explicitly stated, such as at Carlow (Comerford, *Kildare and Leighlin*, iii, p. 40).
- ⁷⁸ *Report of commissioners into fairs and markets in Ireland, 1853*, pp 6, 8.
- ⁷⁹ *Report of commissioners into fairs and markets in Ireland, 1853* p. 6 ('about twenty-five years ago').
- ⁸⁰ *Return of the number of disturbances in Ireland at fairs and markets in collection of tolls and customs, 1840-43*, pp 4, 12-13, 23-4, H.C. 1843 (589), I, 163 (hereinafter cited as *Report into disturbances at fairs and markets, 1840-43*).
- ⁸¹ Before 1766 the listing is described as 'the principal fairs of Ireland', but from that year the listing is headed 'the fairs of Ireland' (*The gentleman's and citizen's almanack, 1766*, p. 81). It is notable that Bray is listed as a fair site by Bourk (Bourk, *Hiberniae Merlinus, 1685*, p. 44) and is also listed in *The complete pocket companion, or universal almanack for the year of our Lord, 1739*, but it is not listed in by Watson until 1765, the year previous to the change in emphasis, noted above.
- ⁸² *Report of commissioners into fairs and markets in Ireland, 1853*, p. 3.
- ⁸³ Three of the four single-event locations present some difficulties of identification; subsequent editions of Watson's *almanack* list fairs at Hangarstown and Ballycops until 1734, after which year neither location reappears, but it seems likely that Hangarstown is located near Rathangan, in west Wicklow, and Ballycops represents Copse, near Ballinderry, and Rathdrum. Clangee has not been identified.
- ⁸⁴ *Report of commissioners into fairs and markets in Ireland, 1853*, pp 118-9; *Cal. S. P. Ire.*, 1663-5, p. 438 for Newtownmountkennedy (the charter likely authorised the fair).
- ⁸⁵ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 86.
- ⁸⁶ These fairs have been identified from *Cal. pat. rolls James I*; *Cal. pat. rolls Ire., Chas I, Report of commissioners into fairs and markets in Ireland, 1853*; Down Survey Maps, The barony of Newcastle in the County of Wicklow (N.L.I., microfilm p. 7385).
- ⁸⁷ Such administrative changes were not uncommon, and it was often the case that multiple patents were taken out for the same fair-location. In most cases, the reason for multiple patents is

unknown, but these may have been either linked to internal manor organisation or necessary to ensure the smooth operation of the fair. In Naas, for instance, the requirements of an ancient patent were being ignored, and a new patent was issued in 1628 to clarify the extent of the tolls that were to be paid by patrons (*Cal. pat. rolls Ire., Chas I*, p. 459).

⁸⁸ *Erck* (ed.), *Repertory*, i, no. 2, pp 488 (Ballymore), 694-5 (Tullow).

⁸⁹ *Cal. pat. rolls, James I*, p. 39, no. ii, 447, no. xviii.

⁹⁰ Down Survey Maps, The barony of Newcastle in the County of Wicklow (N.L.I., microfilm p. 7385).

⁹¹ *Cal. pat. rolls Ire., Chas I*, pp 148, 400; *Report of commissioners into fairs and markets in Ireland, 1853*, p. 119.

⁹² *Report of commissioners into fairs and markets in Ireland, 1853*, p. 119.

⁹³ *Cal. pat. rolls Ire., Chas I*, p. 350.

⁹⁴ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 118.

⁹⁵ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 118, 119.

⁹⁶ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 149.

⁹⁷ A caveat must be entered, however. The seasonal distribution of fairs shown in figure 89 represents the monthly distributions as specified in the various patents, but this may have differed from the distribution of fairs which actually took place, although the patterns do complement the general agricultural and industrial seasonality, and are not likely to differ considerably from the actual seasonal distributions, which remain unknown.

⁹⁸ *The gentleman's and citizen's almanack, 1735*, p. 79.

⁹⁹ Other subtle changes are worth noting, too. August, popular in the pre-1800 patents, remained popular, but October, dropped from third to sixth position during the same period. These various changes in the ranking of the months may reflect agricultural changes that had occurred between these two periods. The gradual increase in grain crops over the previous century may, for instance, have boosted the importance of November, by encouraged the postponement of fairs until the harvest was saved, and sold, and the quantity of money in circulation was at a maximum.

It is also possible, however, that such changes in rank order may simply have been the coincidental reflection of the impact of inherent biases associated with the timing of fairs. Fairs were either fixed – set to occur on a specific day of the year, usually a holy day – or variable – either linked with the varied timing of moveable feasts, such as Easter, or set to occur on, for instance, the first Monday of a month. Under the earliest patents, fixed fairs were pre-eminent, but increasingly during the eighteenth century, as fairs came to be more routinely established to reflect the increased demands predicated by infrastructural improvements, the continued expansion of urban centres, and the growth of sub-national, national and international trade-links, variable dates became favoured. Nonetheless, the occurrence of a fixed feast day during a month operated to boost the number of fairs held during that month. Thus, in November 1735, nine of that month's thirty-five fairs occurred on All Saints Day (1 November), and this, coupled with the confluence of ancient traditions and agricultural seasonality, helped to confirm the popularity of that particular month.

¹⁰⁰ Since Watson does not provide any indication as to the size or character of a fair, it seems reasonable to presume that multiple fairs scheduled for a location or in a region probably provides some guidance as to the strength of the regional economy.

¹⁰¹ Occasionally fairs were disallowed, in order to prevent the spread of disease, such as occurred in 1747 and 1751 (*Handlist of proclamations, 1714-1910*, pp 68 (16 April 1747), 77 (9 August 1751)).

¹⁰² Charles Dickson, *The life of Michael Dwyer, with some account of his companions* (Dublin, 1944), p. 185, 186 n (hereinafter cited as Dickson, *Life of Michael Dwyer*).

¹⁰³ Cullen, *Ec. hist of Ire.*, p. 47; *The groans of Ireland* (Dublin, 1741), pp 5-9.

¹⁰⁴ 5 George III, c. 14 (*Stat. Ire.*, ix, pp 324-341).

¹⁰⁵ The date of fixed fairs shifted by eleven days following the change in the calendar during September 1752. See *The gentleman's and citizen's almanack, 1752*, p. 101 for an explanation of the new dating for fairs ('The Fairs that are fixed, or depend on the Beginning, or any certain Day of a Month, are held, as if the Old Stile had not been altered. Thus, the Fair of Banagher was wont to begin on the 4th of September. Look in the Almanack for that day in the Column of Old Stile; opposite thereto in the Column of the Month Days, you will find the 15th of September: So that the Fair begins the 15th of September'.)

¹⁰⁶ *The gentleman's and citizen's almanack, 1745*, p. 76.

¹⁰⁷ *The gentleman's and citizen's almanack, 1762*, p. 99.

¹⁰⁸ Old style dates, so the equivalent new style dates are 9 August and 15 November. The two new fairs were first advertised in 1745 (in *The gentleman's and citizen's almanack, 1745*, pp 78, 82). Note, however, that the second of these two fairs was advertised for 4 October for all years between 1745 and 1751, but from 1752, when the new style calendar came into operation, it was successively advertised for 15 November. It seems certain, therefore, that the 4 October fair was incorrectly recorded, and that the real date was 4 November, since the addition of the 11 days would move this fair to 15 November, the advertised date from 1752 onwards. The 29 July fair was correctly scheduled, as that date shifted by the 11 days moved to 9 August, as appears in the listing from 1752. Even in the 1830s these two fairs were still occurring on these dates (*Dublin almanac, and general register of Ireland, 1834*, p. 85).

¹⁰⁹ This includes Hacketstown, in County Carlow, which is included on Nevill's map.

¹¹⁰ In these graphs the number of fairs occurring each month have been normalised to take account of the varying number of days in each month, with 100 representing the expected number of fairs, based on the total number of days in each month in 1759 – 1761. There were 1196 days in the three years. January's aggregate was 31 + 31 + 31 = 93, but February's aggregate was only 28 + 29 (1760 was leap year) + 28 = 85. Thus, the expected number of fairs occurring for February is only 7.8 per cent of the total, compared with 8.5 per cent for January.

¹¹¹ *The gentleman's and citizen's almanack, 1769*, pp 97, 98; Lewis, *Topog. dict. Ire.*, i, p. 357.

¹¹² Lewis, *Topog. dict. Ire.* ii, p. 436; *The gentleman's and citizen's almanack, 1770*, pp 91, 96, 98.

¹¹³ Bray's two fairs were held on 1 May and 20 September (*The gentleman's and citizen's almanack, 1765*, pp 95, 104) and Hollywood's four were on 1 February, 3 May, 1 August and 1 November (*The gentleman's and citizen's almanack, 1769*, pp 81, 83, 89, 95). Note, however, that Bray was advertised as a fair site by John Bourk, for 1685 (Bourk, *Hiberniae Merlinus, 1685*, p. 44, and had been advertised in 1739 also in *The complete pocket companion, or universal almanack for the year of our Lord, 1739*, unnumbered, but lists a fair for first Tuesday in May).

¹¹⁴ *The gentleman's and citizen's almanack, 1770*, pp 81, 82, 83, 84, 87, 88, 89, 90, 92, 93, 95, 96, 98, 99.

¹¹⁵ *The gentleman's and citizen's almanack, 1770*, pp 81 (frieze), 82 (cattle), 84 (frieze), 85 (cattle), 86, 89 (cattle), 96 (frieze), 97 (cattle), 98 (frieze and cattle) for Clonegal; *ibid.*, pp 81, 82, 84, 87, 91, 92, 97, 99 for Hacketstown.

¹¹⁶ *The gentleman's and citizen's almanack, 1770*, pp 83, 88, 93, 95. Both Usk fairs lasted two days.

¹¹⁷ Beckett, *The making of modern Ireland*, p. 177; O'Brien, *Economic history of Ireland in eighteenth century*, pp 108-9, 110.

¹¹⁸ *The gentleman's and citizen's almanack, 1781*, p. 97, 99, 102, 108, 109, 115.

¹¹⁹ *The gentleman's and citizen's almanack, 1776*, pp 99, 109.

¹²⁰ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 120; Claude Chavasse, *The story of Baltinglass, a history of the parishes of Baltinglass, Ballynure and Rathbran in County Wicklow* (n.p., 1970), pp 45-8.

¹²¹ *Report of commissioners into fairs and markets in Ireland, 1853*, p. 119; *The gentleman's and citizen's almanack, 1773*, pp 106, 110, 116, 122.

¹²² Sallins was served from February 1779, and Robertstown from October 1784 (Delany, *Grand Canal*, pp 21, 23).

¹²³ *The gentleman's and citizen's almanack, 1782*, pp 98 (1 April), 109 (2 September).

¹²⁴ Nolan, 'Land and landscape in Wicklow', pp 656, map, 658, table.

¹²⁵ A. J. Nevill, *Map of Wicklow, 1798*; *Report of commissioners into fairs and markets in Ireland, 1853*, p. 58.

¹²⁶ John Millington Synge, *In Wicklow and west Kerry* (Dublin, 1910), pp 41-2 (hereinafter cited as Synge, *Wicklow and west Kerry*).

¹²⁷ *Census Ire, 1831*, p. 114..

¹²⁸ *The traveller's new guide through Ireland* (Dublin, 1815) notes the holding of a monthly flannel fair at Rathdrum, so it is likely that the number of fairs occurring in 1815 in *Watson's* is incorrect.

¹²⁹ Redmond, 'Notes on the parish of S.S. Mary and Michael, Rathdrum', p. 195.

¹³⁰ *Traveller's new guide through Ireland*, p. 66.

¹³¹ Lewis, *Topog. dict. Ire.*, ii, p. 495.

¹³² *Census Ire., 1851*, p. 347, 349, 362. The figures used do not include the inhabitants of workhouses and hospitals, which would artificially boost the populations of Baltinglass and Rathdrum.

¹³³ *The gentleman's and citizen's almanack, 1815*, pp 43, 45, 48, 52, 54, 57, 64, 67. The name books compiled during the Ordnance Survey and Samuel Lewis (1837) both note that 'a patent exists for eight fairs in the year, but none are held', but this seems to be incorrect (*Michael O'Flanagan* (ed.). *Ordnance Survey name books, County Wicklow, transcribed by Michael O'Flanagan* (3 vols, N.p., n.d., iii, p. 130) (hereinafter cited as O'Flanagan (ed.), *O.S. name books, Wicklow*); Lewis, *Topog. dict. Ire.*, ii, p. 212). The only way that these claims could be correct is if the listings in the almanacs were based on patented fairs rather than on actual events, but since the listing of fairs was one of the key features of the almanac, then that would mean that the listings were virtually useless to the general user, and to the general merchant, at whom the lists were aimed. The Kiltegan fairs are scheduled in the almanac right through the 1830s (*The gentleman's and citizen's almanack, 1835*, pp 54, 47, 49, 52, 54, 57, 62, 65). The coincidence that both Lewis and the O.S. name books both suggest that there was no fairs there is intriguing, but is probably just an indication that Lewis's information used the name books as a source.

¹³⁴ Syngé, *In Wicklow and west Kerry*, p. 43.

¹³⁵ This can be viewed as little more than a rudimentary guide. In the 1830s and 1840s, the six fairs at Shillelagh and the eight fairs at Coolboy were badly attended, but the four fairs at Coolattin were 'good'. The Shillelagh was, apparently, suffering from 'fairs-overload' at that time because 'there are 33 fairs in the year within 3 miles of this [Shillelagh] village' (O'Flanagan (ed.), *O.S. name books, Wicklow*, i, pp 262, 264, 280; *Report into disturbances at fairs and markets, 1840-43*, p. 24).

Chapter 5 – The building blocks of communities: family development, economic cycles, and the primacy of ‘choice’

The previous chapter showed how economic scheduling was closely tied to the agricultural cycle, which produced seasonal rhythms. This chapter will consider how these distinctive seasonal rhythms impacted in demographic terms, by examining the operation and functioning of households and families, the fundamental building blocks of communities. It also looks at aspects of family formation and family growth, placing particular emphasis on how families were impacted upon by the choices that were available to them at any particular time. It will be argued that the choices available to Wicklow's inhabitants were heavily influenced by two fundamental cycles. An ecclesiastical cycle imposed a first layer of restrictions. During the penitential periods before Easter and Christmas marriage was avoided and for some, intercourse was suspended, or at least occurred with less frequency. Even within the Protestant communities, whom might have been expected to be free from what were considered by many to be Popish superstitions, these penitential periods had a resonance, and an influence.

The second set of cycles impacting on communities was the two great annual agricultural cycles governing the demand for labour within arable and pastoral agricultures. People scheduled their marriages, and in some cases even timed conceptions and births, in order to reduce their impact on the personal economics of their family. It will be shown, therefore, that family-formation was most common during the periods which lay outside the times of the year which were prohibited by the church and was also avoided when high agriculture-driven demand for labour temporarily boosted local wage rates.

Of course, these seasonal fluctuations could also be influenced by other factors, and in a substantially rural economy, such as eighteenth-century Wicklow, the quality of the harvest was of primary importance. In chapter three a number of periods during which serious demographic challenges were experienced were identified. Demographic stresses appear to have been particularly acute in the Wicklow region during the years 1685-92, 1708-10, 1714-6, 1726-30, 1739-41, 1754-7, 1762-6, 1782-4 and 1795-7, all of which coincided with years of scarcity,

harvest failure, high food prices, and in some instances, famine. Throughout this chapter, therefore, the impact of harvest failure and demographic stresses, and the impact of bountiful harvests, on personal choices will form an important sub-context. In particular, issues such as the impact of demographic stresses on family-formations, family-expansions and family contractions will be examined to verify suppositions made previously concerning the links between contemporary socio-economic conditions and marriages, baptisms and burials. It will be seen, too, that even the timing of burials was not immune from economic or ecclesiastical considerations.

Introduction

In pre-industrial Wicklow family units were typically created by marriage. In chapter three it was noted that marriage was intimately linked with levels of current public confidence, and that time lags between marriage fluctuations and changes in public confidence were likely to have been short. This is the essence of the positive link between real wage and nuptiality levels that was earlier shown in the hypothesised model for population change within an early modern society (figure 24). It was also suggested that time lags between marital trends and the general economic climate were more likely to occur towards the end of a crisis period, and that the extent, duration and intensity of the distress could prolong recovery. The implication of these links means that trends in the marriage rate should reflect general trends in the economic cycle at a local and national level, and, thus, the general demographic trends that were outlined in chapter three, through a detailed consideration of mortality and fertility fluctuations, can be expected to be confirmed by trends in nuptiality.

However, the timing of marriage was not just influenced by macro-changes in climate, food supplies and price movements; there were other influences too. Ancient church regulations prohibited marriages during certain periods for Catholics and although these 'Popish canons'¹ had fallen out of favour with Anglican churches, they were, nonetheless, still impacting on Protestant marriage choices throughout the eighteenth century. The fluctuating demand for labour could also be a key factor in determining the timing of marriage, as has been evidenced for England by Ann Kussmaul's examination of the link between the

regional characteristics of marital-timing and local agricultural practices between Tudor and Victorian times.² Kussmaul found that marriages were less common when the seasonal demand for labour was highest, and, hence, varying marriage patterns between regions can usually be directly related to the seasonality of the labour-demands of local agriculture. However, if marrying couples were choosing the time of their marriage so as to lower the opportunity cost – both for them and their guests – of their unions (in terms of forfeited real wages), then it is not unreasonable to presume that similar economic choices may have been made for shorter time-spans, too. Some (and perhaps most) marriages, for example, may have been timed so as to coincide with the day of the week when the demand for labour was lowest, or when labourers wages were paid.³

Of course, if the timing of marriage is subject to these cyclical fluctuations, then it is also possible that similar choices were being made with regard to the timing of baptisms. While the celebrations associated with a baptism were of a smaller scale than those accompanying nuptials, the opportunity costs could still be high for the child's parents and godparents, and for anyone else involved in the ceremony. Recently Roger Schofield has conducted an examination of the favoured day for baptisms, marriages and burials in England, which revealed Sunday to have been the most popular baptismal day.⁴ In a similar fashion, this chapter will examine the macro- and micro- fluctuations in the levels of baptism and marriages, to explore if the varying opportunity cost of those events was influencing the choices that were made either by parents or newlyweds with regard to their timing. The chapter will also consider the timing of burials, and although the annual seasonality of the burial-level is exclusively removed from peoples' influences, it will be shown that for short temporal cycles, opportunity cost and personal preference factors are also evident.

Family formation, and the quality of the marriage records

Since the establishment of a new family unit usually started with marriage, a consideration of the quality of Wicklow's marriage data is a necessary first step, and, although the surviving marriage data for the region is often poor and incomplete, there is, nonetheless, a sufficiency of data of tolerable quality available to permit a detailed study of the complexities of marriage patterns for the

Anglican community in the Wicklow region during the late-seventeenth and eighteenth centuries. For Catholics, the opportunities are more restricted, and as was the case for the examination of fertility trends, conducted in chapter three, the only appropriate Catholic data is from Wicklow parish for the latter half of the eighteenth century. Figure 106 shows an annual aggregate of all marriages in the fifteen Church of Ireland parishes in greater Wicklow which were considered in detail in chapter three,⁵ and figure 107 shows the equivalent data for Wicklow's Catholic parish.⁶ Even before the likely accuracy of the data is considered, a number of notable features are evident from the raw data, particularly in relation to the Church of Ireland aggregates. In the Church of Ireland series, between 1700 and 1780 the number of marriages recorded in a year in the registers reaches thirty on just six occasions – 1710, 1711, 1717, 1730, 1749 and 1764. Without exception, all of these years are periods of respite, in the aftermath of intense, widespread distress. Significantly, too, notable dips in the marital aggregates occur in 1709, 1713, 1727, 1740, 1745, 1753 and 1762, all of which also correspond to periods of intense distress, that were outlined in chapter three. These two linkages represent a first glimpse of the intimate connection between contemporary living standards and the choices that were being made with regard to family-formation, and ultimately to local demography. For the Catholic data, a prolonged gap occurs in the series between 1780 and 1795, which complicates any consideration of the records, but it is notable that many of the dips in Catholic marriage-levels correspond to low-points in the Protestant registers, which bodes well for the future analysis.

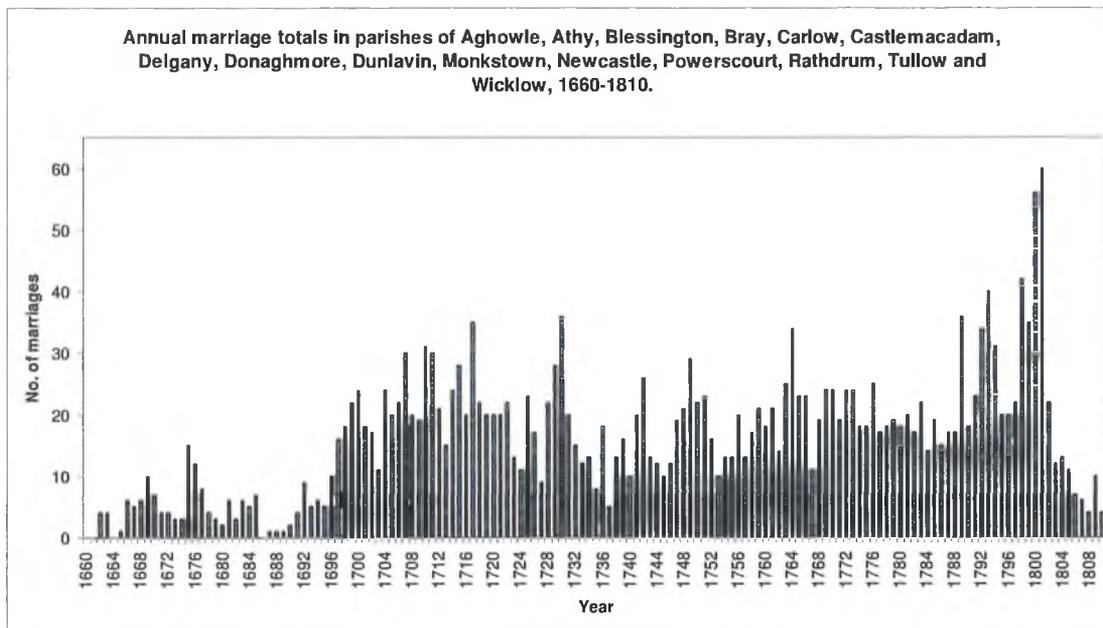


Figure 106 – Marriage aggregates per year in fifteen Church of Ireland registers in Wicklow region (source R.C.B. Lib. for all registers except Monkstown, Monkstown data from Guinness, *Parish registers of Monkstown*).

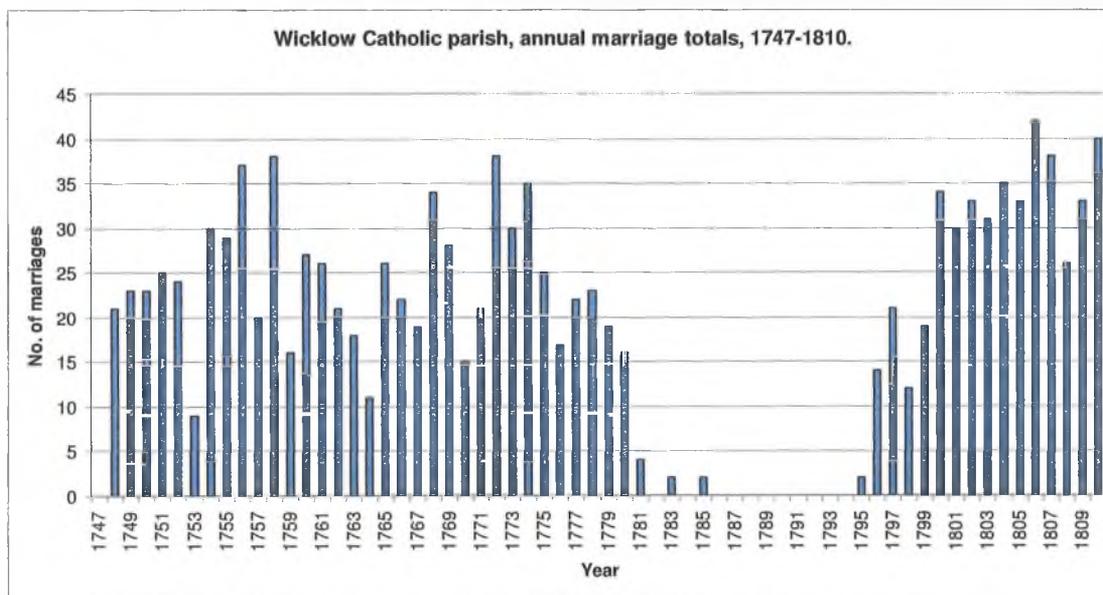


Figure 107 – Marriage aggregates per year in Wicklow (Catholic) parish registers, 1747-1810 (source Wicklow parish Catholic registers, in local custody).

In chapter three the crude baptismal and crude burial rates for each individual parish for a three-decade period centred on 1766 were used to check the likely degree of thoroughness of recording in the registers for each individual

parish, and this method is similarly available for checking the completeness of marital records for the same period. Before proceeding with such an analysis, however, it is worthwhile noting that determining deficiencies in marital registration can be considerably more problematical than was the similar operation on the baptism or burial records. In table 44 (chapter three) it was noted that crude yearly marriage rates in early-modern societies were typically of the order of between five and ten per 1,000 persons, a factor of five (or more) lower than the birth or death rates. The consequence of this is that the number of marriages in a register is much lower than the number of baptisms or burials, and because of the small size of the Protestant community in most parishes, it is often impossible to confidently conclude whether a gap in marital registration is a reflection of poor registration, or infrequent celebration. Notwithstanding this qualification, the process by which the accuracy of the marriage records, both Protestant and Catholic, has been considered is outlined in appendix 37, stage 1. The results of this analysis strongly imply that, on the Protestant side, although some parishes, including Wicklow, Carlow, Delgany and Castlemacadam, appear to have recorded marriages with a greater diligence than elsewhere, the records for *all* of the thirteen Church of Ireland parishes under scrutiny are highly deficient but, by contrast, the records for the single Catholic parish seem to have been recorded with considerably greater thoroughness (appendix 37, figures 222 and 223). In fact, the Protestant marriage records were so poorly kept that even through the process of interpolation (as performed on the baptism and burial datasets in chapter three) would not improve the reliability of that dataset. Thus, the process of interpolation has been performed on the Catholic dataset only – outlined in appendix 37, stage 2 – and the resulting modified Catholic yearly marriage-aggregates are shown in figure 108.

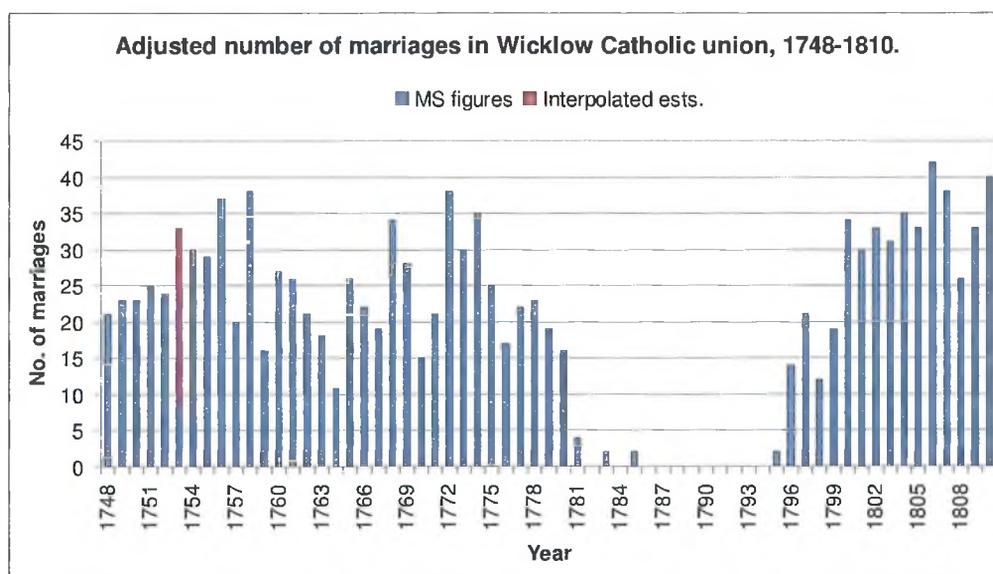


Figure 108 – Adjusted annual marriage aggregates for Wicklow Catholic parish, 1748-1810.

When the crude marriage rate for the adjusted Catholic dataset is determined, and compared with known periods of distress, a clear correlation between these two factors becomes evident, and some familiar patterns emerge. In the adjusted marriage-rate graph, shown in figure 109, in nine of the thirty-one years centred on 1766 the calculated Catholic crude marriage rate (CMR) failed to reach the minimum expected rate, of five marriages per 1,000 people. However, during most of these years the calculated rate was sufficiently close to the minimum level as not to warrant comment. Furthermore, the calculated CMR fell below 4.0 for only 4 years, and all but one of these years (1770) followed a year which has earlier been identified as a time of demographic difficulties. It should be remembered, too, that any mixed marriages should not be appearing within the Catholic registers; mixed marriages would represent a loss to the Catholic aggregates, and operate to depress the Catholic marriage rate. Since, therefore, the Catholic CMR figures either lie within the anticipated bounds, or lie marginally below them but for reasons that can be readily explained, for all but one year (1764), it seems reasonable to view the Wicklow Catholic marriage register as, unlike its Anglican counterparts, either a thorough or a near-thorough records of the actual number of marriages that occurred within the parish during the period 1751 to 1781.

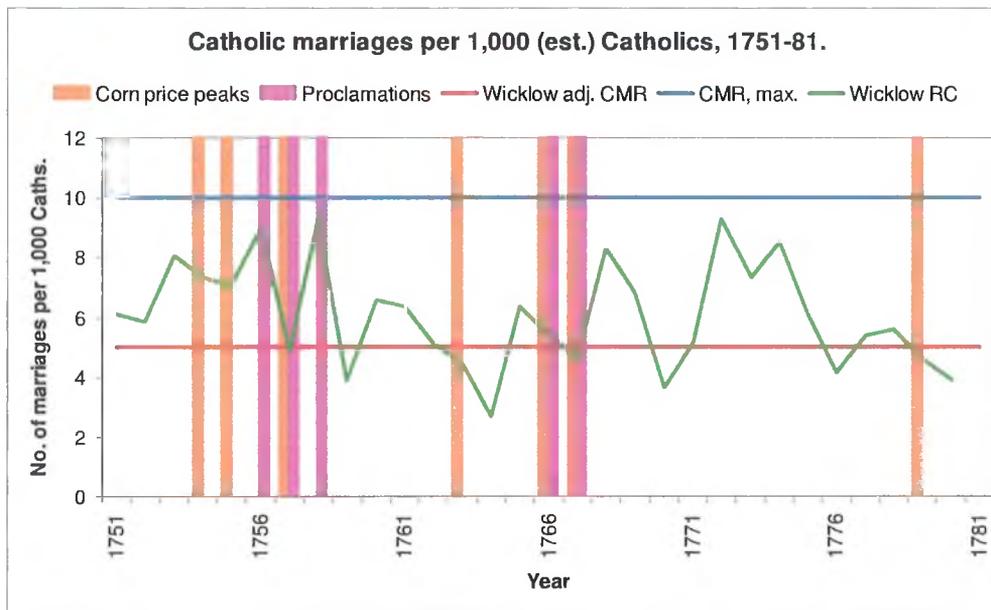


Figure 109 – Adjusted CMR for Wicklow Catholic parish, 1751-81 (using 1766 pop. ests). Also shown are years when grain prices peaked (adjusted prices > 20 per cent above the mean for 1700-4) and when orders against the export or forestalling of grains were proclaimed. Min. and max. rates from Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 20.

As was the case with the baptismal and burial registers that were considered in chapter three, if one was to follow the advice of English demographers, the Church of Ireland marriage registers would have to be abandoned as a demographic source, since they are clearly deficient for all parishes, at least for a three-decade period centred on 1766. Again, however, it can be reiterated that it is an abundance of source material for English parishes that facilitates that approach, and, for Wicklow, despite the obvious deficiencies in the Anglican registers some of them still remain of considerable use for the examination of demographic trends within Wicklow's Protestant communities; even deficient registers should not automatically be presumed to be as worthless.⁷ For example, a marriage register which is incomplete will provide a record of only a sample of all marriages, but if there is evidence that the recording was largely free from biases and that the sample is a representative sample of the community (or an identifiable segment of the community), then its value is enhanced. Furthermore, since the total number of marriages in any of the Anglican registers is small, if the data for the parishes are aggregated into regions, as was done with

baptisms and burials in chapter three, then biases within individual registers can be lessened within the aggregate.

Temporal spheres, denominational timings and yearly rhythms

In the seventeenth and eighteenth centuries Catholic and Protestant Wicklow lived in similar, but unique, temporal spheres. Two groups of factors can be identified, which impacted on these temporal spaces. First, fundamental factors, such as agricultural practice or demographic distress, were common to both denominations, and were essentially unifying, in that they influenced the actions and choices of members of both communities at the same time, and in the same way; the economic cycle, changes in the demand for labour or fluctuations in the availability of money in rural areas, for example, were each largely denominationally unspecific. Other factors, however, which were principally determined either by custom or by religion, could present varied temporal choices and opportunities to the communities. For Catholics, popular religious customs, including participation at local patterns or stations, had a strong resonance, which was not experienced by Protestants. Catholics and Protestants also celebrated different holy days (appendix 38) and both communities may also have taken a different approach to ancient prohibitions concerning marriage, or the preparation period for important church holy days. These differences created denominationally distinctive ecclesiastical cycles, which may have influenced personal choices with regard to the timing of celebrations or the presentation for church sacraments. If this was the case, however, it is reasonable to presume that the seasonality of Catholic and Protestant vital events could be different, reflecting differences in the ecclesiastical cycles of both denominations. This issue merits consideration.

First, however, it is useful to look at some English studies, which provide some guidance parameters. Ann Kussmaul's study of marriage in pre-industrial England, briefly mentioned above, observed that the timing of marriage was closely linked to the demand for labour.⁸ Kussmaul's fundamental conclusion was that the demand for marriage typically peaked when the demand for labour was low, but an important sub-theme within her study was that varying agricultural practices within regions, produced different characteristics in the timing of marriages within those regions – 'lambs and calves were dropped, crops ripened

for harvest, in their own seasons, different seasons. Agricultural work was seasonal, governed by the annual rhythm of growth, and marriages moulded themselves to the seasonal matrix of work'.⁹ Thus, Kussmaul found that either of 'the two great agricultural seasons' tended to be followed by peaks in the number of marriages, depending on the type of agriculture practised in the particular area. In pastoral areas marriages usually occurred in spring and early summer, after lambing and calving, in arable areas post-harvest, autumn weddings predominated, and in areas which were characterised by rural industry, no specific trends were evident.¹⁰

Other factors played a part in moulding the annual cycle of marriages too. The timing of marriage was uniquely influenced by ecclesiastical prohibitions on marriage during certain times of the year. Historically, there were three of these prohibited periods, of ancient origin, which covered between 135 and 141 days (between four and five months) during a full year (table 55), and were restated in the 1634 Irish canons.¹¹

Table 55 – Traditional temporal prohibitions on marriage.

<p>Advent – the first Sunday in Advent until 13 January (St Hilary's day) exclusive.¹² This period was of variable length and included 6 or 7 holy days.¹³ Depending on the length of Advent (which commenced between 27 November and 3 December) this period lasted for between 42 and 48 days.</p> <p>Lent – this prohibition ran from Septuagesima to Low Sunday inclusive and the period was of fixed duration (71 days),¹⁴ although variations in the timing of Easter (which could fall anywhere between 22 March and 25 April) meant that the prohibition could lie anywhere between 18 January – 29 March (when Easter fell on 22 March) and 21 February – 2 May (when Easter fell on 25 April). Thus regardless of the timing of Easter the whole of March fell within the prohibited period for all but a handful of years. Much of February and April also lay within this prohibited period, as did part of the latter two weeks of January on occasion.</p> <p>Rogationtide – a fixed period of 22 days from Rogation Sunday to Trinity Sunday (inclusive). Like the Lenten period this period also varied during the year from 26 April – 16 May to 30 May – 20 June.</p>

It is notable that, while these specified periods may have reflected spiritual priorities, they would not have reflected the economic priorities for many of the church's members. Most notably, the harvest period was not included as a prohibited period. Thus, in arable regions, since economic priorities operated to

discourage marriage during the harvest, and with the church prohibiting marriage at other times, marriages would have had to have been concentrated into a few, distinct periods during the year, if the prohibitions on marriage were to be strictly observed.

Wrigley and Schofield's consideration of marriage-seasonality provides extensive indicators for what can be expected in the Irish context. The prohibitions were suppressed during the Interregnum and although attempts to resuscitate them in England after the Restoration have been described as 'not usually successful',¹⁵ because 'old habits die hard', traces of their impact are reported by Wrigley and Schofield throughout the period between the sixteenth and the nineteenth centuries.¹⁶ Specifically, they note three dramatic dips in the number of expected marriages – between February and April, between July and September and during December.¹⁷ It appears incontrovertible that this pattern was determined by the coincident interactions of God and mammon – the spring and December dips were certainly a reflection of a continued respect for the prohibitions within popular culture, whilst the late-summer/early-autumn dip was determined by economics, agricultural seasonality and an enhanced demand for labour. The Rogationtide prohibition does not appear to have been observed in England, as this would require a dip in marriages during May, which was not observed evident, even during the earliest periods.¹⁸ It is noteworthy, too, that the two dips which were influenced by ecclesiastical traditions reduced dramatically with the passage of time, whilst the mid-year dip remained evident. During the sixteenth century, for instance, in March the number of marriages fell to just 8 per cent of the expected level if marriages were proportionately distributed but by the early years of the nineteenth century March marriages were running at 73 per cent of the expected figure. A similar, and equally dramatic, change is evident in the December statistics, where marriages were just 41 per cent of the expected level in the sixteenth century, but by the nineteenth century they had increased to 119 per cent of expected levels.¹⁹ These findings for England provide an interesting background, against which Wicklow's Church of Ireland marriage figures can be compared.

In the Catholic sphere, the Council of Trent (1545-63) modified and reduced, but nonetheless maintained, prohibitions on marriages, which remained in force until the twentieth century, and were usually rigorously implemented. For Catholics, the Rogationtide period was abandoned by Trent and the Advent and Lenten periods were both shortened. The Catholic post-Trent prohibitions are shown in table 56.²⁰

Table 56 – Catholic prohibitions on marriage, after Council of Trent.

<p>Advent – from the commencement of Advent until the Epiphany. Thus, this prohibited period was shortened by 6 days, as it had previously run beyond the Epiphany, until St Hilary’s Day – duration, between 36 and 42 days.</p> <p>Lent – from the commencement of Lent (Ash Wednesday) until the octave of Easter (Quasimodo, or Low Sunday). Thus the first 17 days of this period, from Septuagesima to Shrove Tuesday, were removed – duration 54 days.</p> <p>Rogationtide – abandoned, but it is doubtful that it had not previously fallen into abeyance.</p>

This, because both denominations operated with differing prohibitions, it does not seem unlikely that Catholics and Protestants might have married at different times of the year. While both communities would have been subject to the unifying economic influences of agricultural seasonality, both groupings were also subject to different pressures from their churches and from denominationally-specific social conventions. Thus, the gradual weakening of the influence of the ancient prohibitions within Protestantism meant that Protestants had a wider choice available to them than did Catholics when deciding on when they should marry. In support of this, Wrigley and Schofield observe the Lutheran marriage patterns were similar to those of England in the eighteenth century, while the patterns in Catholic regions, where the Tridentine prohibitions were operational, were substantially different.²¹

Neither was it just the timing of marriage that was subject to unambiguous seasonal rhythms, as births and deaths also exhibited characteristic and consistent annual cyclical fluctuations,²² and these also have been examined for England by Wrigley and Schofield, by comparing the actual number of baptisms and burials occurring each month with the expected number of these events, adjusted to take

account of the varying number of days in each month. The typical pattern for baptisms was a peak spanning January to April, a trough spanning May and August and the September through December period, when mean baptisms were only slightly below the expected number. This pattern appears to have been widespread across England, being observed in the 'overwhelming majority of individual parishes'.²³ Notably, however, Wrigley and Schofield observed a weakening in these seasonal patterns between the sixteenth and nineteenth centuries, although this typical seasonality was still unmistakable even by the 1830s, by which time the amplitude of the fluctuations had considerably reduced, because of the increased age at baptism by that time (chapter three).²⁴

Of course, seasonality of baptisms does not necessarily imply a similar seasonality in births, and the link between baptism and birth seasonality is governed by the birth-baptism interval. If the birth-baptism interval is negligible then it follows that birth seasonality and baptismal seasonality were the same, but if the duration is prolonged, and more particularly, if the duration was heterogeneous, then serious challenges would be encountered in determining birth seasonality from baptismal data. Fortunately, in the case of Wicklow, it was seen (chapter three) that, while the evidence for birth-baptism intervals is sparse and sporadic for the region, all available evidence implies that the interval was typically less than a month, and often considerably less.

Burial patterns in pre-industrial England also exhibited an annual cycle, which appear to have closely matched the baptismal patterns.²⁵ Typically, burials peaked during the first four months of the year, after which, mortality dropped during the summer months (July was the month of fewest burials), and rose again in late autumn and early winter.²⁶ Since the interval between death and burial was always likely to be very short, burial seasonality can be viewed as closely reflecting death seasonality, with a delay of no more than 2 or 3 days. Notably, too, there was no flattening of the burial seasonality patterns over time, which can be accounted for by the stability of the death-burial interval in comparison to the lengthening of the birth-baptism interval.

The various English trends, observed by Kussmaul and Wrigley and Schofield, and others, provide a substantive framework within which Wicklow's

seasonal patterns can be considered. Thus, an examination of Wicklow's baptism, burial and marriage seasonality follows, which will use the English findings to help explain any patterns that emerge within the Wicklow data. It seems probable that Catholic and Protestant marriage patterns may have been different during the eighteenth century, but the baptismal data will also be explored, to investigate if birthing patterns may also have differed between the denominations. Since Wrigley and Schofield also identified differences between urban and rural baptismal and burial timings, this aspect will also be considered, although since Wicklow's urban centres were not particularly large, any settlement-specific impacts may be concealed within other, more pronounced, seasonality fluctuations.

SEASONAL PATTERNS – BAPTISMS

The Protestant baptismal data will be considered first. Following Wrigley and Schofield's methodology, index numbers, representing the expected number of baptisms, have been calculated for each month for periods of varying length between 1650 and 1850, with 100 representing the number of baptisms that are to be expected based on a proportionate distribution of total annual baptisms according to the number of days in each month. If the month of a baptism is ambiguous or unknown, that data has been excluded from the calculations. A question arises over what to do with interpolated monthly data, which was determined in the previous chapter. Ultimately, it was decided to include the interpolated monthly figures, but because so few interpolations were performed in the first place, their inclusion or omission is unlikely to have any great impact on the seasonality graphs.

In the first instance, the entire data has been considered together. Thus, monthly index numbers have been calculated for the fifteen parishes considered in the previous chapter and for two additional parishes, Naas (1679-99) and Dunganstown (1782-1805). The results of the analysis present similar, but subtly different, figures to those observed by Wrigley and Schofield, although the fundamental patterns observed within the English data remain evident. For England, baptisms always peaked in either of February, March or April, during June, July and August they consistently ran significantly below the anticipated

levels and they recovered again in mid-autumn. Similarly in the case of Wicklow there is a peak in baptisms in the three months between February and April, but the trough for baptisms occurs later in the year, at a time when England was experiencing a rally in the level of baptisms. For Wicklow, throughout the period 1650 – c. 1830 August and September consistently experienced the least number of baptisms compared to the expected levels. June and July, the months when baptisms were depressed in England, corresponded with a period when the baptism level in Wicklow was sluggish, but not spectacularly so.

Of course, Wrigley and Schofield's analysis, operating on 404 parishes, represents the amalgam of the data from a wide variety of parishes, with differing characteristics and constitutions, including urban, rural industrial and rural arable and pastoral. In the Wicklow context, while some notable urban centres are represented in the data (Naas, Athy and Carlow parishes contained the largest proportions of urban dwellers, whilst Wicklow town was the pre-eminent urban centre on the east coast), the principal contributions to the dataset come from rural parishes, comprising various combination of arable and pastoral farming. These characteristic differences must account for some of the differences between the English and the Wicklow data.

In tables 57, 58, 59 and 60 and figures 110, 111, 112 and 113 the normalised, aggregated monthly baptismal data have been presented for the seventeen Church of Ireland baptisms for various periods between 1650 and 1850. The shorter the time span the more difficult it becomes to read any graphical presentation of the data, but a spring peak in baptisms is characteristic for all temporal data as also are dips during the harvest period, between August and October. Tables 57, 58, 59 and 60 also show the likely conception months which correspond to baptisms during each month (based on the presumption of a short birth-baptism interval). Since spring baptismal peaks equate to summer conceptions, biological factors may have been a factor contributing to the spring peak.²⁷ However, two other practical factors may also have been influencing the summer-conceptions bias. First, children born during spring had a reasonably high probability of survival, because food typically became more plentiful at the time when spring-born children were moving from liquids to solids, although if was not

the most opportune time for birth, because the disease-related threat to the infant was also enhanced during summer, and it was also the time when diarrhoea, one of the most common causes of infant deaths, was most prevalent.²⁸ Second, spring births meant that disruption to labour during the harvest season was minimised. Wrigley and Schofield, accounting for a similar phenomenon across north-west Europe, also suggest 'that there may have been an economic dimension, whether consciously recognised or not'.²⁹

Table 57 – Monthly indexes of baptisms in Wicklow’s Protestant parishes, for fifty-year periods.

Baptisms	January	February	March	April	May	June	July	August	September	October	November	December
Conceptions	April	May	June	July	August	September	October	November	December	January	February	March
1650-99	95	106	113	105	92	104	115	104	95	97	78	95
1700-49	107	108	112	105	104	99	97	88	89	105	93	93
1750-99	100	111	111	112	109	103	101	90	88	88	95	93
1800-50	109	121	120	99	101	103	95	91	101	83	98	81

Note: The figures in tables 57, 58, 59 and 60 represent the normalised baptismal levels, with 100 representing the expected level, based on the number of days in the month. If normalised monthly figure exceeding 100 then that month had more baptisms than could have been expected. Bold type indicates the months with the largest and smallest numbers. Due account has been taken of the variable number of days in February, and the 11 fewer days in September 1752.

Table 58 – Monthly indexes of baptisms in Wicklow’s Protestant parishes, for twenty-five year periods.

Baptisms	January	February	March	April	May	June	July	August	September	October	November	December
Conceptions	April	May	June	July	August	September	October	November	December	January	February	March
1650-99	95	106	113	105	92	104	115	104	95	97	78	95
1700-24	112	104	113	105	98	104	93	88	92	102	96	93
1725-49	102	111	111	105	110	95	100	89	86	107	91	92
1750-74	103	112	113	118	105	96	103	94	92	86	89	89
1775-99	98	111	108	106	113	109	100	86	84	89	100	96
1800-49	109	121	120	99	101	103	95	91	101	83	98	81

Table 59 – Monthly indexes of baptisms in Wicklow’s Protestant parishes, for twenty-year periods.

Baptisms	January	February	March	April	May	June	July	August	September	October	November	December
Conceptions	April	May	June	July	August	September	October	November	December	January	February	March
1650-99	95	106	113	105	92	104	115	104	95	97	78	95
1700-19	119	106	118	104	95	104	93	87	86	100	95	94
1720-39	94	108	102	104	109	101	100	86	97	113	95	90
1740-59	107	110	113	113	105	94	97	89	89	98	90	93
1760-79	98	115	119	115	111	98	105	94	86	80	89	91
1780-99	100	108	105	107	113	108	100	89	85	91	101	94
1800-49	109	121	120	99	101	103	95	91	101	83	98	81

Table 60 – Monthly indexes of baptisms in Wicklow’s Protestant parishes, for ten-year periods.

Baptisms	January	February	March	April	May	June	July	August	September	October	November	December
Conceptions	April	May	June	July	August	September	October	November	December	January	February	March
1650-99	95	106	113	105	92	104	115	104	95	97	78	95
1700-9	116	97	126	103	105	96	95	73	83	103	101	101
1710-19	122	116	109	105	84	114	90	103	89	96	88	86
1720-9	98	104	95	103	106	104	110	93	95	107	99	88
1730-9	92	112	107	105	113	98	91	79	100	119	92	93
1740-9	109	109	119	110	111	89	97	94	80	100	88	94
1750-9	105	111	107	117	99	100	97	83	100	96	93	92
1760-9	97	113	127	125	106	95	104	97	82	74	94	87
1770-9	99	117	110	103	117	103	106	90	90	87	83	96
1780-9	96	112	109	103	110	106	107	85	89	92	102	90
1790-9	105	103	102	111	116	110	92	93	79	89	100	99
1800-49	109	121	120	99	101	103	95	91	101	83	98	81

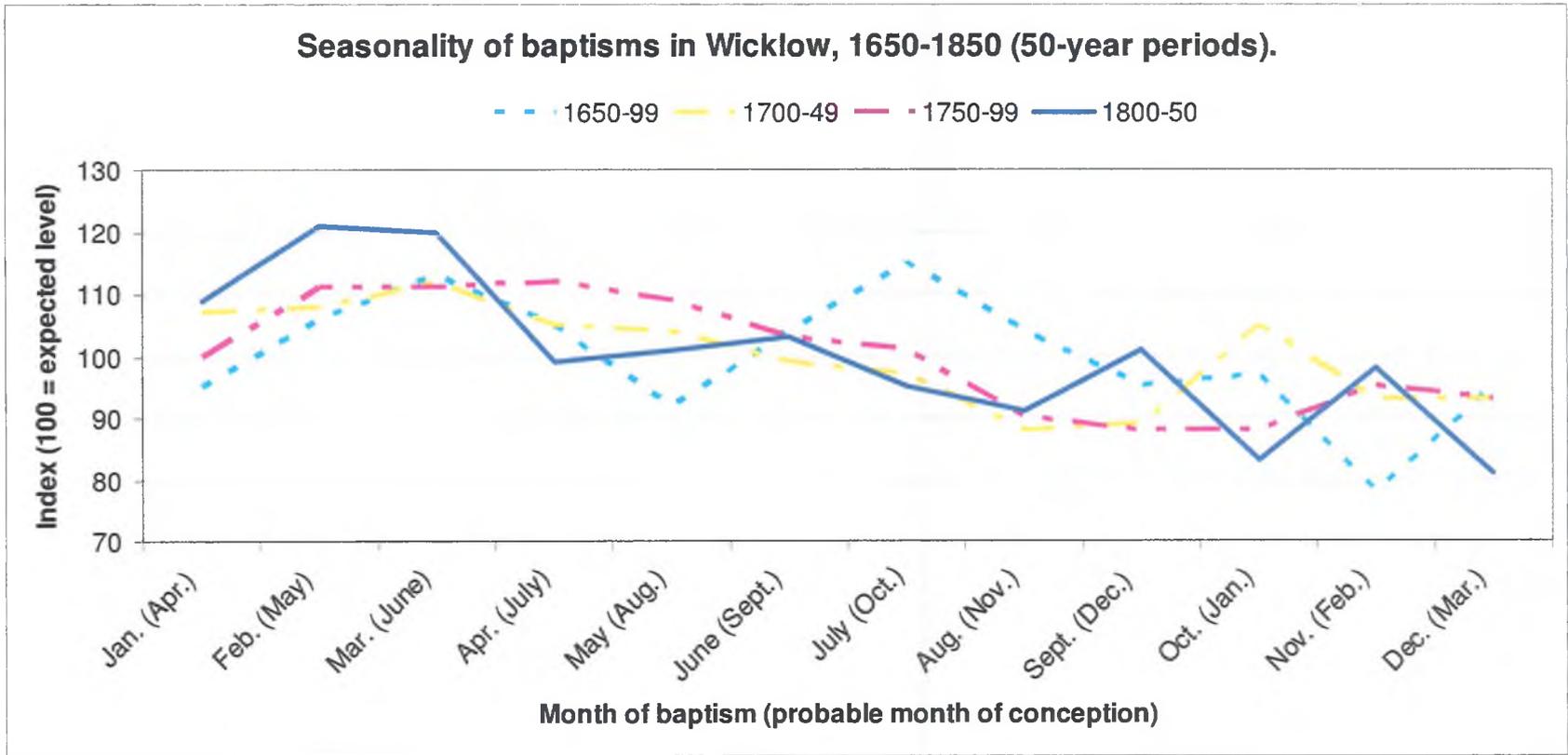


Figure 110 - Seasonality of baptisms in Wicklow's Church of Ireland registers (fifty-year periods).

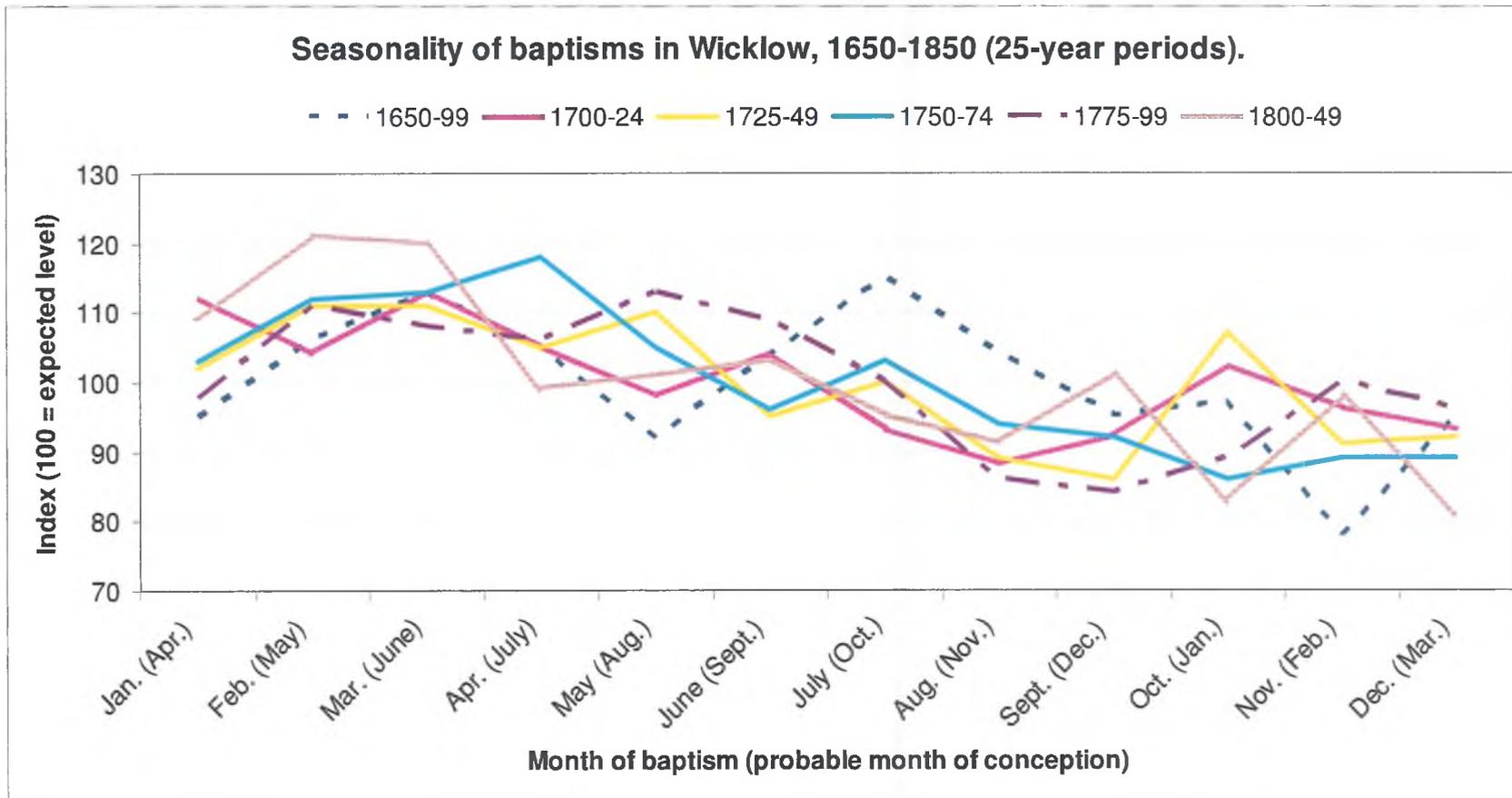


Figure 111 - Seasonality of baptisms in Wicklow's Church of Ireland registers (twenty-five year periods).

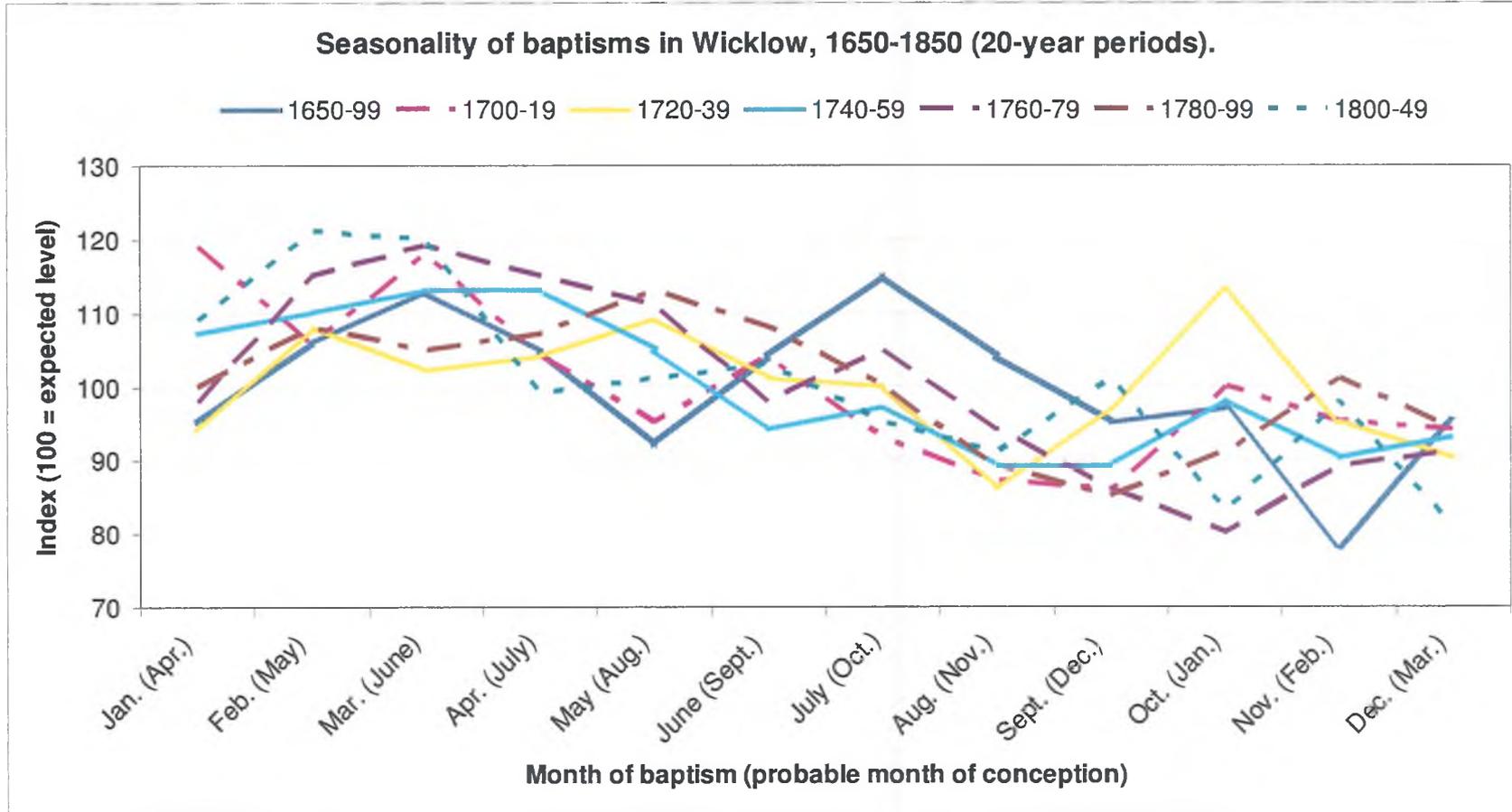


Figure 112 - Seasonality of baptisms in Wicklow's Church of Ireland registers (twenty-year periods).

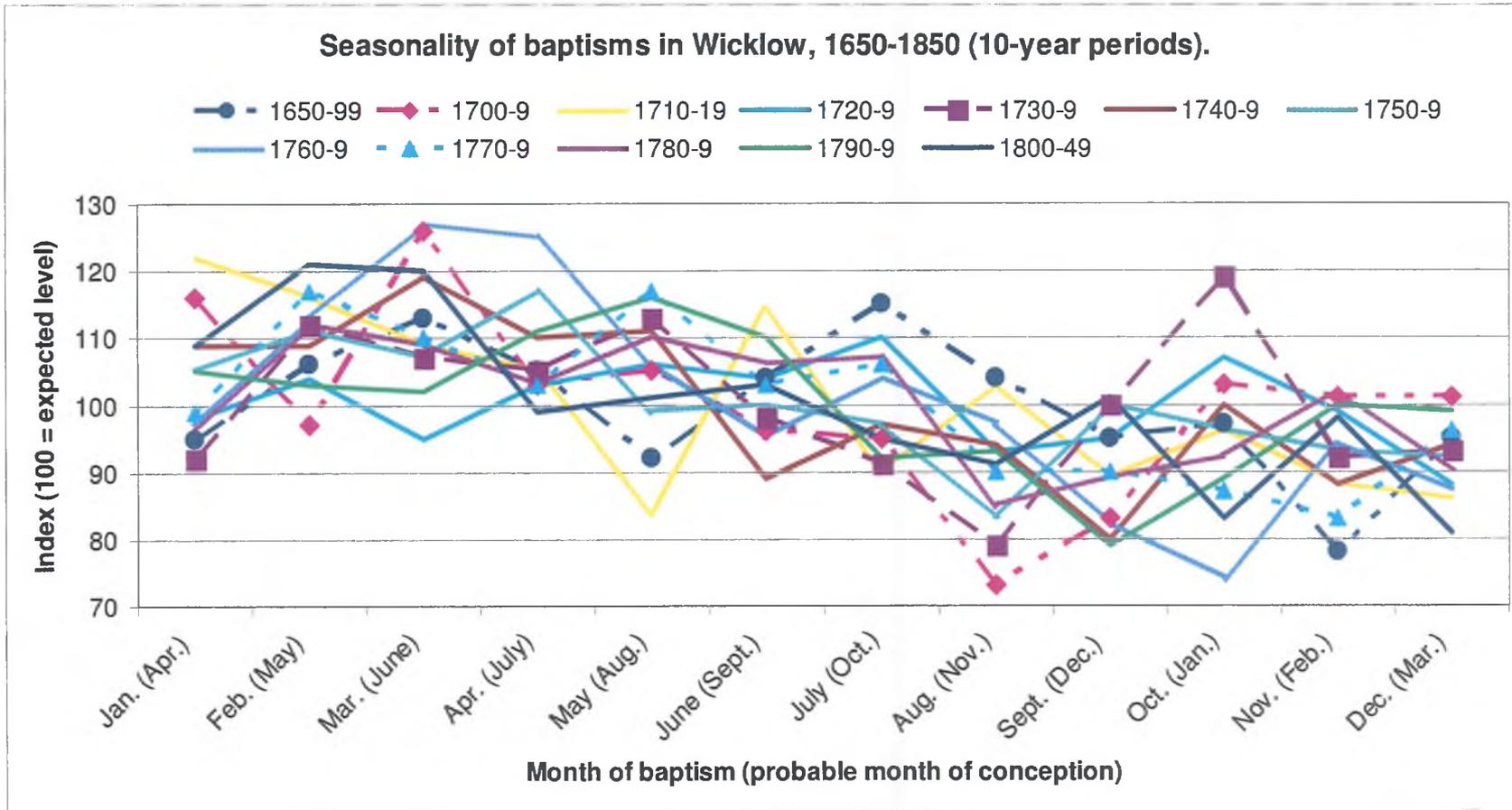


Figure 113 - Seasonality of baptisms in Wicklow's Church of Ireland registers (ten-year periods).

From tables 57, 58, 59 and 60, it can be seen that there are only two notable exceptions to the trend of a spring baptismal maximum; these being the data which dates from the earliest period (1650-99) and the records for the 1730s. For the former period, July, a month which was typically close to the expected average throughout the eighteenth century (figures 110, 111, 112 and 113), emerges as the most popular month for baptisms. However the figures for March, February and April all lie a close second, and July's maximum is not excessively large, so while the trends may diverge, they are not seriously out of kilter. Also, the less-than-consistent recording of data in the seventeenth century, and the sporadic geographic distribution of the parishes recording data at that time when compared with the statistics available for the eighteenth-century may also contribute to this unprecedented July peak. The October peak in the 1730s, however, is more curious. An autumn maximum is unique in the Wicklow context, although October was consistently the most popular month for baptisms during the autumn period and, for England, Wrigley and Schofield's report October as an average month, so a peak need not entirely be unexpected.³⁰

However, scrutiny of the statistical data for autumn during the 1730s can give an insight into the links between economic cycles, the agricultural calendar and demographic changes, which strongly imply that harvest trends played a substantial part in proffering an October baptismal peak at this time. Autumn baptismal peaks were reasonably common in various parts of Europe, and for England a substantial peak in September during the sixteenth century has been observed, which corresponds to a conception peak between 5 December and 5 January, spanning the Christmas season.³¹ Since the mean gestation period for humans is 268 days, then the holiday-period conception patterns which produced a September peak in England in the seventeenth century, when the mean age at baptism was extremely low, is compatible with conception patterns which produce an October peak in the eighteenth century, when birth-baptism intervals were slightly longer.

In chapter three, of course, the 1730s were introduced as a relatively benign decade, between the acute harvest crises of the late-1720s and the early-1740s. It seems probable, therefore, that during this period of bountiful

harvests coital activity during the mid-winter holiday period may have been more common, the inevitable result of which would be a surge in births during September and a baptismal increase in September and October. It is reasonable to presume, too, that this tendency would operate in the opposite way, and that following a poor harvest, with conviviality dampened by reduced food availability and, doubtless, an understanding that the following nine months would be marked by economic stresses, scarcity or even hunger, celebrations would be quieter, and sexual activity reduced. This may appear speculative, but the evidence for the link between the quality of the harvest and the level of Christmas-conception levels is convincing; it can be highlighted by considering the September and October normalised baptismal indices for briefer periods, by which the correlation between harvest failure and October baptisms becomes clearly evident (figure 114, see appendix 39 for the specific index figures). In chapter three it will be remembered that poor harvests were experienced during the periods 1725-9, 1739-41 and 1745-6. During the four years of the subsistence crisis of the late 1720s the baptismal index fell from 117 during 1725-6 to less than 100 in 1727-8 and 1729-30, but once the crisis had passed, the popularity of October consistently increased, so that by the close of the 1730s, with the last serious harvest crises a decade in the past, 24 per cent more baptisms than could be expected were recorded during the four years between 1735 and 1738, and during that four-year period October was the most popular month for baptisms throughout the county. On the commencement of renewed demographic stresses in the late 1730s and 1740s an abrupt reversal in the popularity of October baptisms occurred, and by 1741-2 only 86 per cent of the expected number was being recorded. Neither is it surprising to observe that, since this was the most serious demographic crisis to emerge during the eighteenth century, this baptismal-index level was the lowest level recorded during the quarter century between 1725 and 1750. Once again, however, as that crisis subsided October's baptismal index recovered, until the subsistence difficulties of the mid-1740s temporarily depressed the index below 100, before it rose again in the wake of that crisis, to 114 by 1749-50. A longer run of data, presented in appendix 40, further confirms these trends.

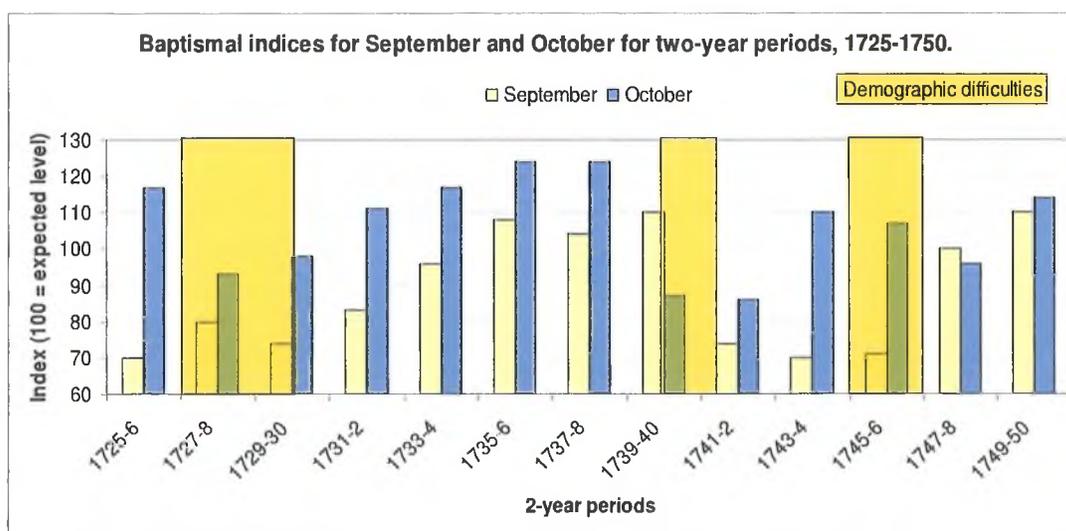


Figure 114 – September and October baptismal indices during the period 1725-50.
Note: the indicators of demographic difficulties are shown to provide guidance only, as they do not translate accurately onto two-year periods.

Neither is it just the month of October which exhibits these patterns – similar trends can be seen during the peak harvest months of August and September, and this clear link between baptism-levels and the harvest adds considerable weight to the oft cited contention that family planning methods were a priority in the early modern era,³² although the dynamics of the link yet remain elusive. While it makes sense that food-availability during the Christmas season would have impacted on conceptions during the mid-winter festival, it is not clear whether the consequent reduction in conceptions in the aftermath of a poor harvest reflected the application of contraceptive practices to avoid pregnancy, a general reduction in sexual activity precipitated by reduced energy among the general population, or whether, in the aftermath of a poor harvest, social festivities were curtailed, but it is probable that these, and other, factors were operating in concert. It is likely, too, that clergymen would have encouraged repentance rather than celebration, when divine displeasure had been evident only a few months previously, while fearful expectations of a hungry spring would have further dampened heavy spirits. In support of this idea, it will be seen later that marriage was often postponed in the wake of a harvest failure or an economic downturn.

If the data is considered on a regional basis, further trends become evident. For the sake of maintaining consistency within this chapter, the regions that were employed during chapter three will not be employed here, because the data does not facilitate it. It is desirable that the same regions be used to examine the baptisms, burials and marriages series, but if the five regions used in chapter three were employed here, some of the regions would contain too few marriages during some periods. Instead, therefore, two regions, divided by the uplands, will be used – east (comprising Bray, Castlemacadam, Delgany, Dunganstown, Monkstown, Newcastle, Powerscourt, Rathdrum and Wicklow) and west (Aghowle, Athy, Blessington, Carlow, Donaghmore, Dunlavin, Naas, and Tullow). Notably, three of the parishes (Athy, Carlow and Naas) in the western region had substantial urban settlements, so the western region can be considered to comprise of rural and urban sub-regions.

Figures 115, 116, 117 and 118 show the baptismal indices for twenty-year periods for these regions and sub-regions, and figure 119 shows the equivalent data for the four region/sub-region combinations for all recorded baptisms. In terms of the spring baptismal peak, a sharp distinction between urban and rural areas is evident, and this is most evident from figure 119. For the two specifically rural regions (east and west (rural)) March was the month during which relatively more baptisms than expected were recorded, but for the urban areas, slightly fewer baptisms than expected were recorded during that month. This is very significant, because it strongly suggests that biological or climactic factors cannot have been pre-eminent in influencing the spring peak in baptisms; if they had been then comparable trends should be evidenced in both the urban and rural datasets. This is further verified by the trends for the entire spring period; during the months of March, April, May and June the trends for the urban and rural indices are virtually antipathic to each other (figure 119), which again suggests that economy rather than biology was influencing localised demographic change.

During the harvest period, and most particularly during August and September, baptisms were lower than expected in all regions, but they rose again in the period after the harvest. Again, this may be the result of either biological or economic factors, but bearing in mind the lack of a biological influence in the

spring peak and the variation in the popularity of births during October, depending on the quality of the previous year's harvest, the economic factor was again likely to have been a prime influence. Two factors bear comment for this period. First, in the arable east, the recovery in the baptismal index occurred during October, a month before it recovered in the pastoral west. This may be a reflection of temporal demands for labour in these agriculturally distinct regions – October, a period when the demand for labour was falling in arable areas, was shown in chapter four to have been a busy period in pastoral economies (figures 98 and 99), when livestock was disposed of before the winter. Secondly, it is notable that the busy crop-gathering period did not just impact on rural economies. During this season, high wage rates commonly attracted urban dwellers into the country, so the opportunity cost of childbirth during the harvest was high, even in urban centres and market towns. Likely, therefore, this accounts for the gradual decline in the urban baptismal index which occurred between June and September.

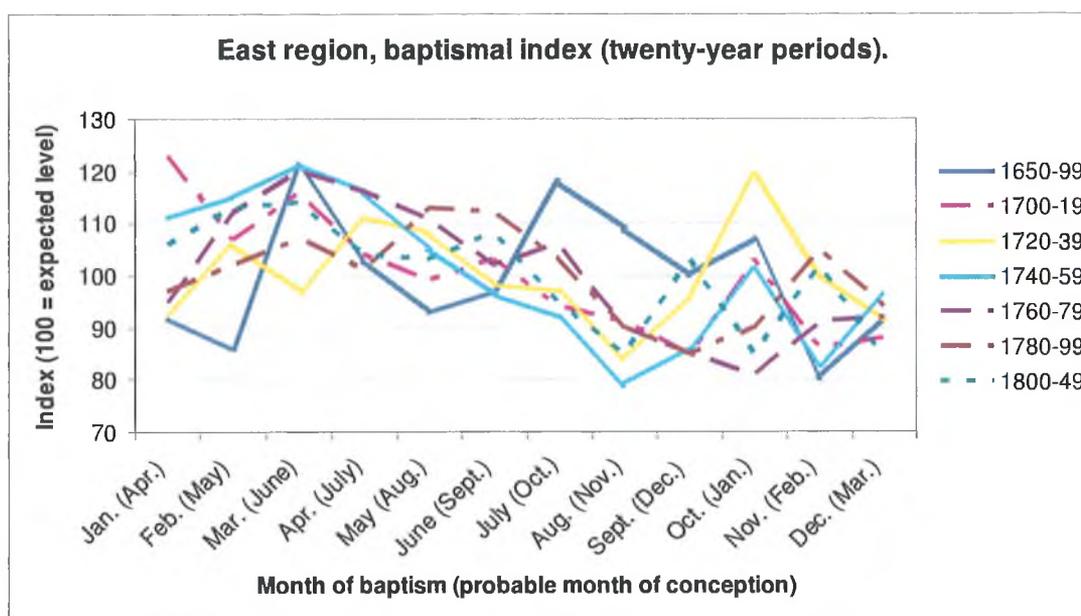


Figure 115 – Baptismal index in eastern parishes, for twenty-year periods.

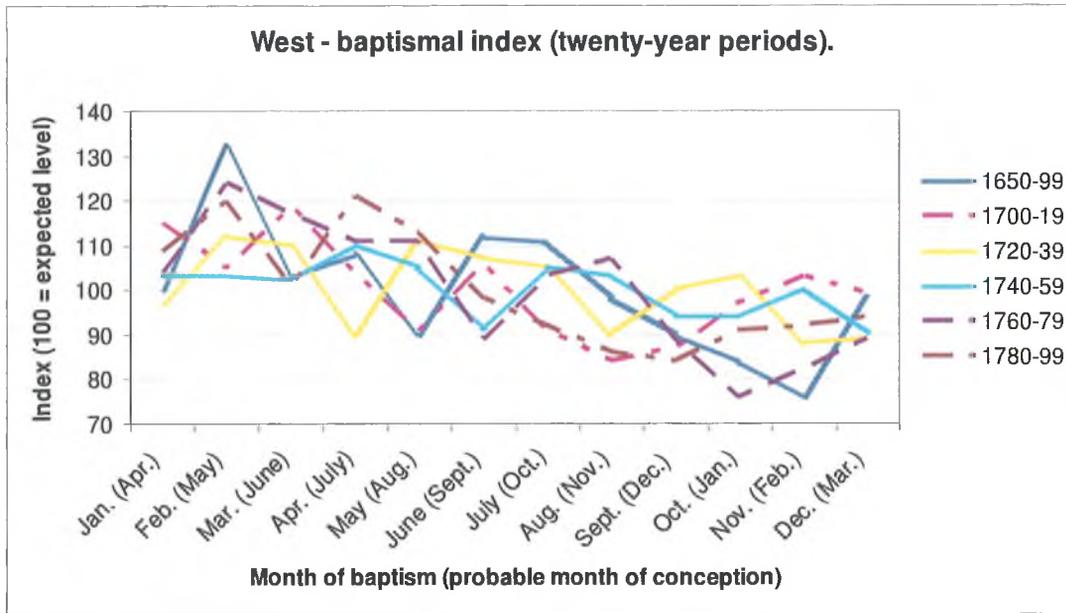


Figure 116 – Baptismal index in all western parishes, for twenty-year periods.

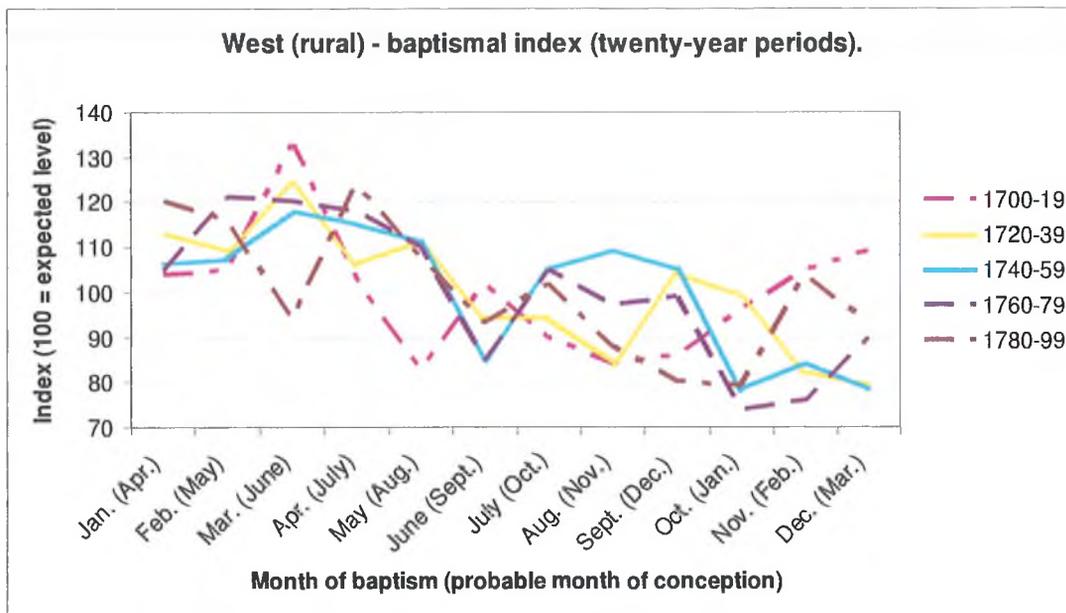


Figure 117 – Baptismal index in western rural parishes, for twenty-year periods.

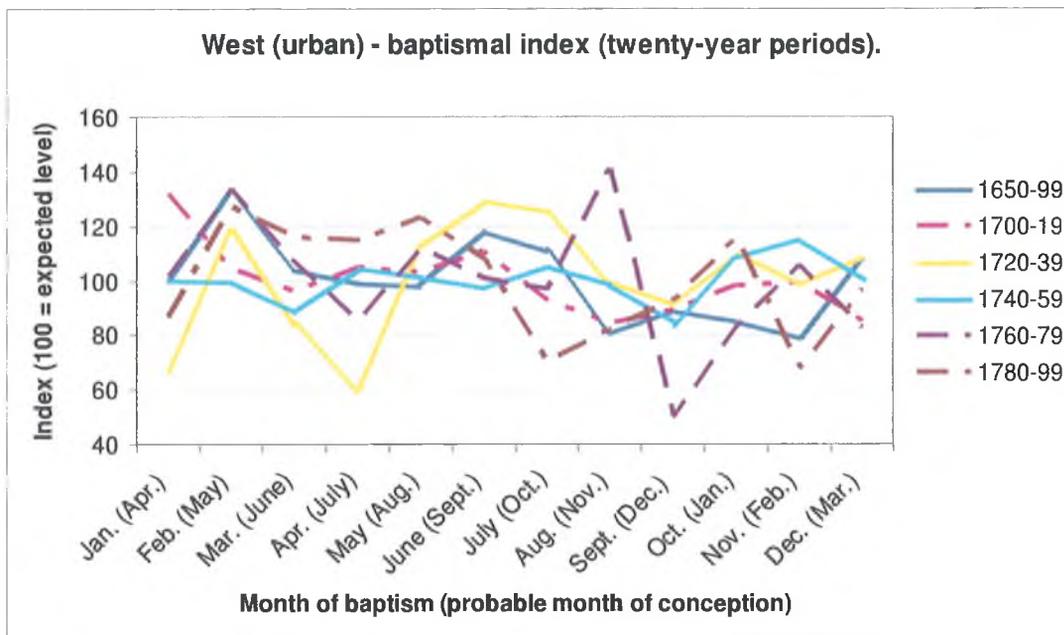


Figure 118 – Baptismal index in western urban parishes, for twenty-year periods.

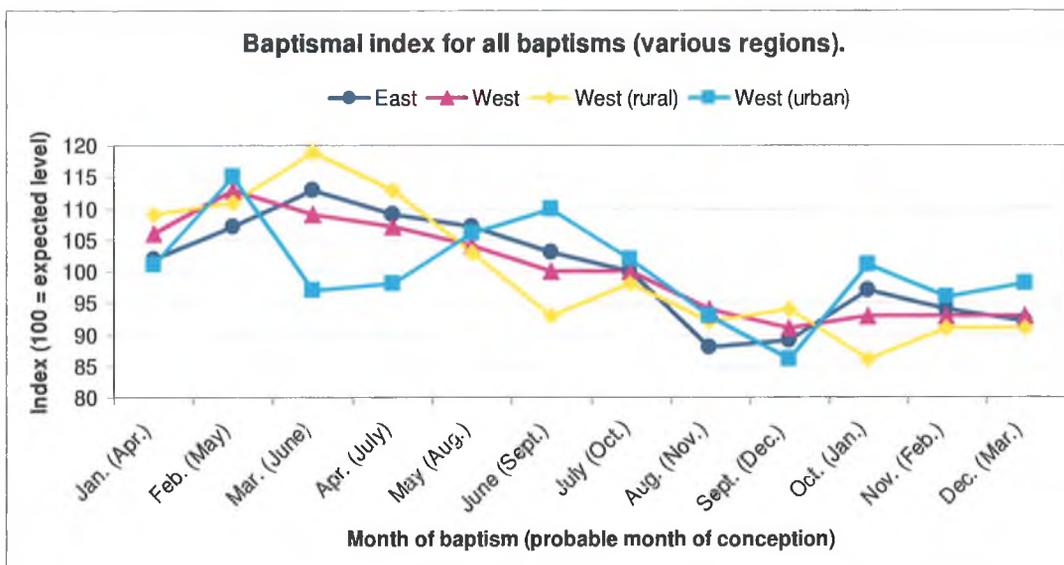


Figure 119 – Baptismal index for all regions.

These regional landscapes also provide information on the unique October baptismal-peak that was earlier examined for the 1730s (figure 114). It appears that the increased incidence of baptisms during October baptisms at that time was primarily an eastern phenomenon, as can be seen from a comparison of figures 115 and 117, and agricultural practices can again be postulated as the most

probable explanation. Since arable agriculture, with a strong element of grain production, was relatively more important to the east of the mountains, the good harvests of the 1730s must inevitably have had a greater social impact throughout that region.³³ Hence, the festive mid-winter celebrations in the east, which resulted in a bubble in birth-levels during the next harvest periods, were not comparably reflected in the pastoral regions of the west and south. Notably, during the 1720s and 1730s October baptisms became marginally more popular in rural western parts (the index increased from 97 in 1720-9 to 106 in 1730-9), but at the same time the popularity of October as a baptismal month soared (from 108 to 129 during the same two decades) in the eastern parishes.

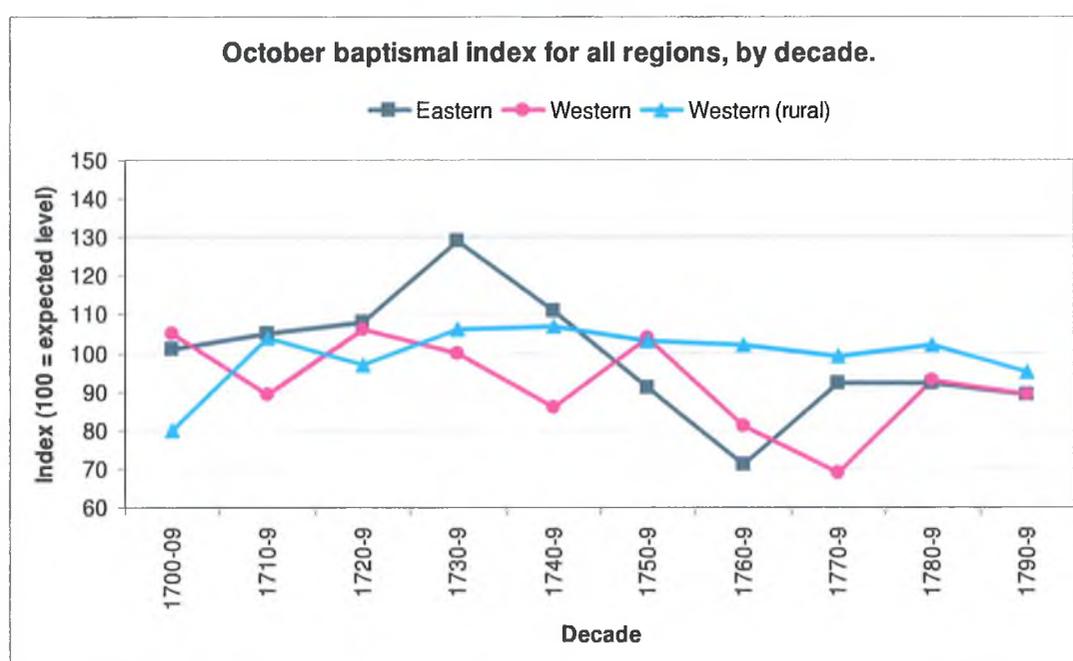


Figure 120 – October baptismal index for various regions.

Note: the decline in the index in western regions in the 1730s is a consequence of an evident decline in the western urban areas, although the data is patchy for this period.

Of course, the regions that are being employed in this analysis are expansive, and quite heterogeneous, and, thus, the suggested impact of local agricultural practices can only be viewed as providing guidance on the fluctuating demand for labour. However, even within these regions, the seasonality of baptisms usually deviated only marginally from the typical, regional trends. The baptismal seasonality observed between the grain-growing parishes of Delgany,

Newcastle and Wicklow compares favourably with the seasonality exhibited for the mixed agricultural parish of Rathdrum, for example (figure 121). In all three parishes the months with the highest number of baptisms relative to the anticipated figure were either March or April, and the least most popular months were either August or September. The prevalence of the August or September dip in all parishes must indicate ‘choice’ on the part of the inhabitants, particularly when Wicklow’s statistics are compared with Wrigley and Schofield’s findings for England. Wrigley and Schofield report a dip in baptisms during July, which shifted into August from the latter half of the seventeenth century, but a recovery in the number of incidents during September.³⁴ In Wicklow, however, this tendency for a September recovery is not evident, and is probably related to the fact that the Irish agricultural season was later than the English cycle by two or three weeks.

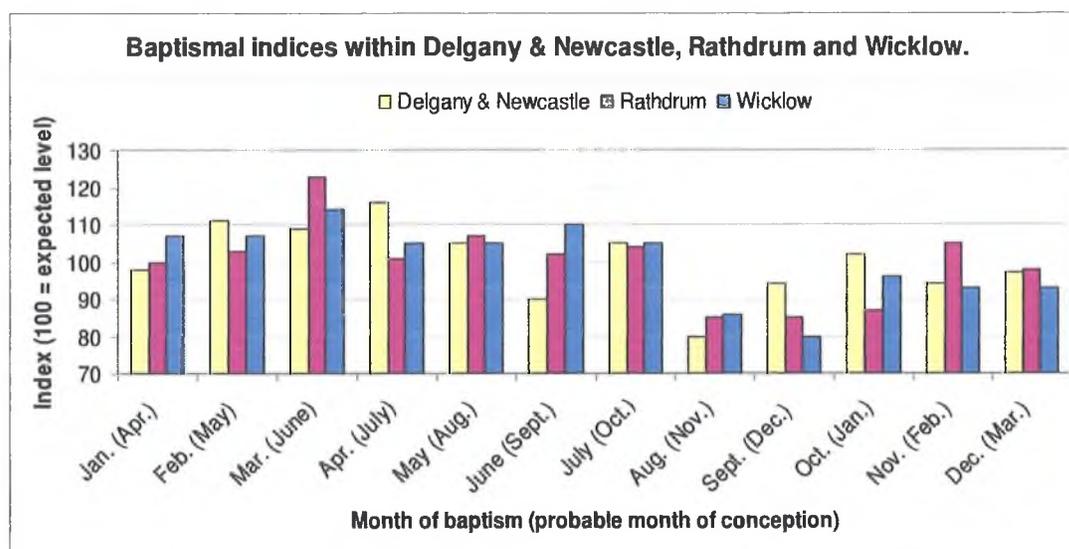


Figure 121 – Monthly baptismal indices within various parishes in east Wicklow.

The seasonality of births within the Catholic community was broadly similar, but with some differences (figure 122), although comparably long temporal comparisons cannot be conducted because of the late commencement of registration. For Wicklow parish the spring and early summer months (between February and May) were the most popular months for baptisms between the years 1749-80, accounting for 40 per cent of all recorded events.³⁵ The remaining two

months in the first half of the year (January and June) were the next two most popular months, and 58.5 per cent of baptisms occurred during the first six months of the year. September and December were the least most popular months for baptisms, with actual levels running at just 79 per cent and 74 per cent of expected levels, respectively. If the birth-baptism interval was short, as was presumed in chapter three (canon law instructed that baptism was to be performed promptly after birth³⁶), then for the Catholic community conceptions were at a cyclical minimum during the months of November, December and, most especially, March.

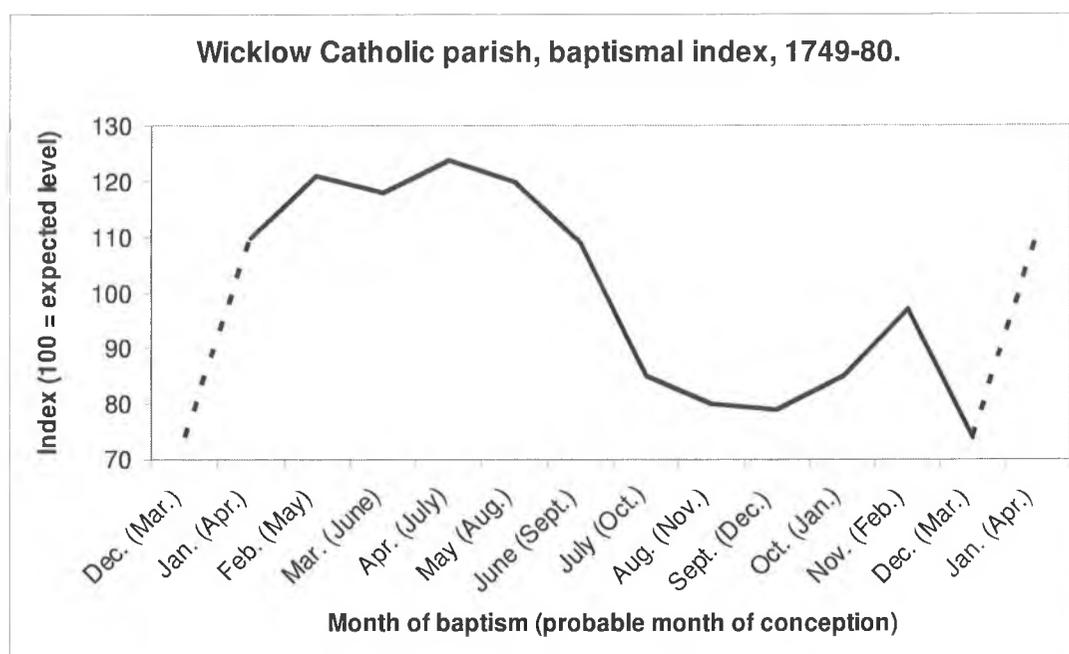


Figure 122 – Monthly baptismal index in Wicklow Catholic parish, 1749-80 (dashed lines are included to highlight the extent of the dip in baptisms during December).

It is likely that there were two factors influencing the marked seasonality exhibited in the Catholic dataset. First, baptisms started to drop in May, which corresponded to a decline in conceptions at the commencement of the harvest period (August). This decline in conceptions intensified during September and October, when the demand for labour peaked during the gathering and saving seasons, which resulted in a baptismal level in July which was only 85 per cent of the expected figure. However, during August, September and October a further decline in baptisms occurred, which cannot have been caused by harvest demands,

because economic considerations do not justify depressed conceptions between November and January. The recovery in baptisms during November (conceptions in February) was followed by baptisms plummeting again in December, to an index level of just seventy-five, before the January index rose to 10 per cent above the expected level (figure 122).

These blatant correlations between conception troughs in November, December and March and the coincidence of the principal penitential periods within the Catholic calendar cannot but be viewed as clear evidence of sexual restraint on the part of Catholics during Advent and Lent, with a corresponding increase in coital activity during the interim period. It is not clear whether this sexual abstinence was a result of the influence of priests or popular culture, but the seasonal pattern, is definite, and undeniable. Catholic sexual activity was clearly being strongly influenced by Catholic spirituality.

To make a direct comparison between the trends for Protestant Wicklow, observed earlier, and these Catholic trends would be invalid. The Catholic data is derived for one specific parish, whilst the Protestant data was examined on extra-county and regional bases, and the periods used for both confessional groups are not coincident. By good fortune, however, the Church of Ireland data for the Wicklow union is sufficiently complete to enable a direct comparison to be made between the two confessional communities for the same period of time, a comparison which is further facilitated by the coterminous geographic boundaries of the two ecclesiastical units. Figure 123, showing the monthly baptismal indices for these two confessional communities for the period 1749-80, highlights the similarities, but also some of the subtle distinctions, in temporal sexual behaviour between Wicklow's Catholic and Protestant communities.

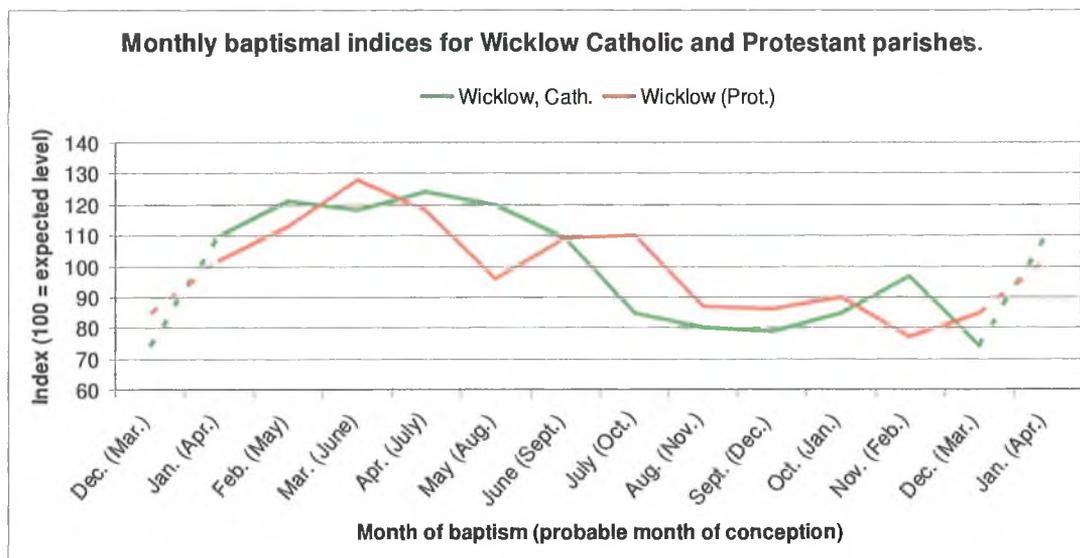


Figure 123 – Baptismal seasonality for Wicklow Catholic and Wicklow Protestant parishes for period 1749-80.

The general seasonal trends for baptisms were reasonably similar. Within both denominations baptisms were higher during the first six months of the year, and fell during the closing six months. February, March and April, the three most popular months for baptisms within the Protestant community, also represented three of the four most popular months for Catholic baptisms, while December (conceptions during March, which coincided with Lent) was an unpopular month within both denominations. Outside these parallels, however, some important differences emerge.

May, the third most popular month for Catholic baptisms, ranked only seventh for Protestants, while the potato digging month of July was the fourth most popular month for Protestants but lay only in eighth position for Catholics. These different baptismal patterns between the two communities during these two months are crucial, as they likely reflect distinctive denominational agricultural practices. Potatoes, increasingly emerging as the staple of the cottier at this stage, represented a more important foodstuff in the diet of the Catholic community, so it is unlikely to be coincidental, particularly bearing in mind the links that have been shown between sexual activity and religious celebration, that the Catholic birth rate fell at a time when labour-demand within that community

was peaking (figure 122). The situation for Protestants was the exact reverse, however, with baptisms 10 per cent above expected levels, compared with 15 per cent below the expected Catholic levels. July typically represented the commencement of a sharp seasonal decline in the number of baptisms amongst Catholics, and it was during this month that the greatest difference between Catholic and Protestant indices is recorded, despite the June indices being equal for both communities.

The difference during May is also likely a manifestation of differential agricultural practices within the two communities. Among Protestants baptisms dipped substantially during this month, to such a degree that May was the only month between January and July, when baptisms were lower than the expected levels, but for Catholics May remained a very popular month, with baptismal numbers 20 per cent above the expected level. Since May baptisms equate to conceptions during August, a busy month in the grain-growing cycle, this likely reflects a greater Protestant reliance on harvest-focussed agriculture. These subtle, but highly significant, differences represent crucial evidence that the various agricultural cycles in pre-industrial rural Wicklow could be denominationally specific, and as a result, these various economic cycles were delineating boundaries – different for the Catholic and for the Protestant – within which sexual activity, conception and fundamental human desires had to be scheduled.

The timing of Catholic and Protestant baptisms was, however, not just linked with the harvest, the cyclical demand for labour or to denominationally specific considerations concerning spirituality and church holidays; even at a micro-level substantial differences in timing are evident, and even the day that was chosen for baptism can provide a window on the unique preferences of each community. Various factors impacted on the choice of the day for baptism, including church policy, and birth-baptism interval and the day of birth. If baptism occurred immediately after birth then baptisms would be proportionately distributed among the days of the week, with approximately 14.3 per cent occurring on each day. However, if the birth-baptism interval was 3-4 days or more then one can expect to see certain days emerging as preferred days for the sacrament.

Roger Schofield's recent study of the preferred days for English baptism provides guideline-figures, within which the Wicklow statistical data can be considered. It must be noted that Schofield's study was considerably larger in scope than this Wicklow study; Schofield's study incorporated the baptismal data for twenty-six parishes throughout England, containing approximately 250,000 baptisms, whereas this Wicklow analysis operates with just 26,000 baptisms.³⁷ For England, Schofield found that Sunday was consistently the favoured day for baptism throughout the period between 1538 and 1834, with the exception of the reign of Mary, when an egalitarian distribution of baptisms amongst the seven days became the norm. Within this trend, however, were substantial changes in the relative popularity of the individual days, and Sunday, consistently the most popular day, steadily increased in importance after about 1737, so that by 1800 about one in two baptisms were occurring that day.³⁸

In the Irish context, church doctrine for both Protestants and Catholics instructed that baptism was to occur quickly after birth. For the Church of Ireland, the 1634 canons specified that Sundays or holy days were to be the principal days for baptism, which was to be publicly celebrated – 'when the most number of people may come together'³⁹ – but if the child was in imminent danger of death, then the ministers were not to defer the ceremony, if requested.⁴⁰ Figure 124, showing the day of baptism for approximately 26,000 Protestant baptisms recorded in the greater Wicklow area for the period 1655-c. 1810, clearly indicates that this preference for Sundays was being honoured by the community, although the majority of baptisms still occurred on days of the week other than Sunday (55.3 per cent). However, if holy days and Sundays are considered together (figure 125), then the proportion of all baptisms occurring on these labour-free days increases to about half of the total, and Monday, the second most popular baptismal-day, lies a long way behind.

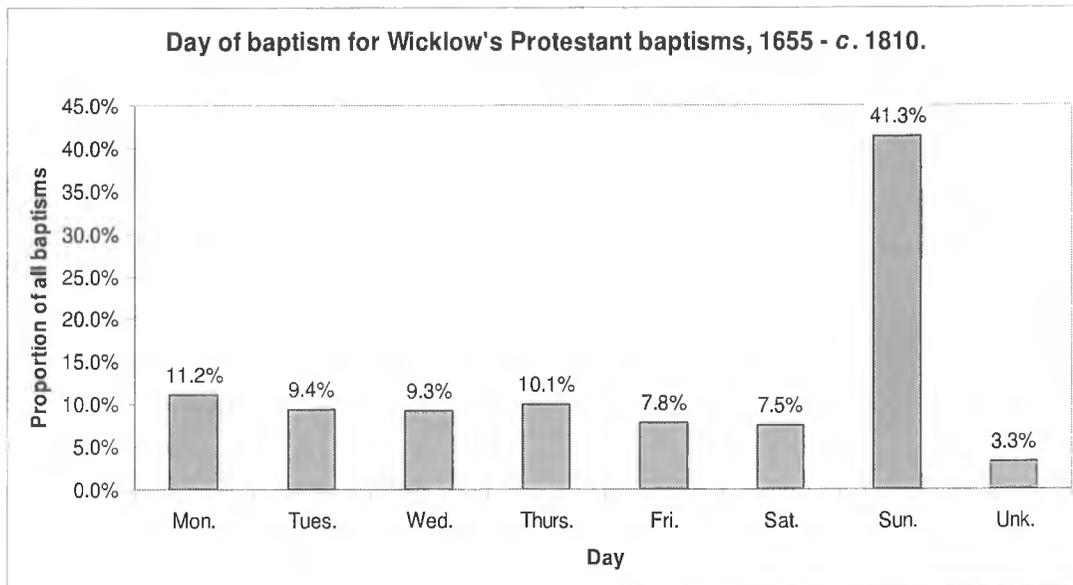


Figure 124 – Day of baptism for Protestants in greater Wicklow, 1655 – c. 1810 (total of 25,946 baptisms).

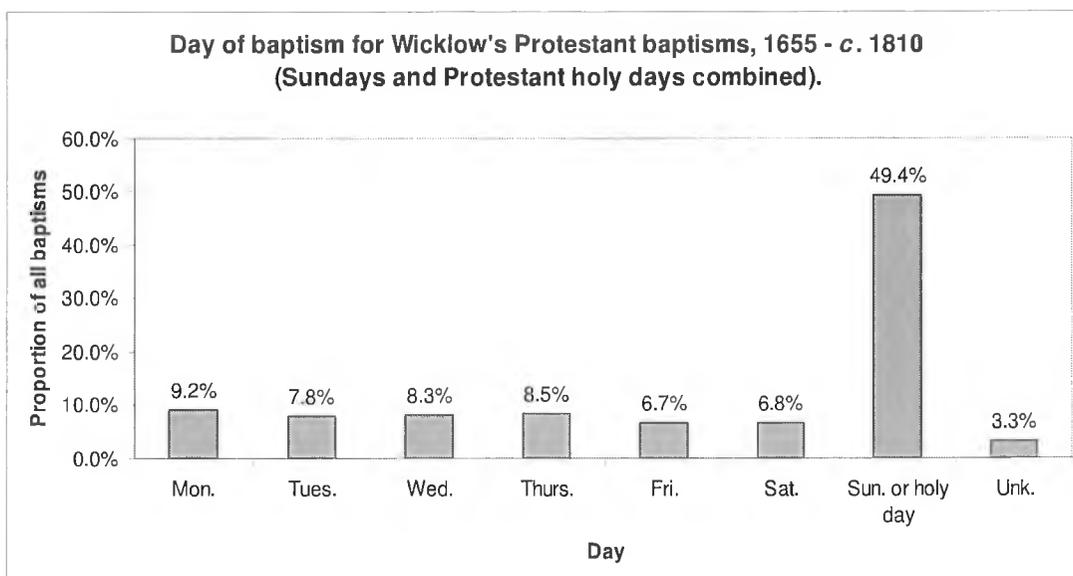


Figure 125 – Day of baptism for Protestants (Sundays and holy days combined) in greater Wicklow, 1655 – c. 1810 (total of 25,946 baptisms).

It is unquestionable that the enhanced importance of Sundays and holy days were influenced by Protestant ethics regarding the canonical pronouncements on the importance of public baptisms, but it seems probable that the link between economics and the timing of celebrations was also impacting on the choice of baptismal day (figures 124 and 125). This can be seen from the rankings of Friday

and Saturday, which were the two least popular days. Two factors were likely operating to depress the relative popularity of those two days. First, baptisms which might have occurred on Friday or Saturday could be postponed until Sunday, when public worship was available. Even for sickly children, these two days were sufficiently close to Sunday to often justify the gamble of postponing a baptism, but this became increasingly less of an option for children born earlier in the week, as the likelihood of death in the intervening period increased. Secondly, Friday and more especially Saturday were the days when labourers' wages were paid, so holding a baptism on those days might have interfered with the routine collection of wages.

Neither did the relative popularity of Protestant baptismal-days in Wicklow change much before 1770, but, as was observed by Schofield, for England,⁴¹ during the closing decades of the eighteenth century Sunday became progressively more popular (figure 126). By the early years of the nineteenth century Sunday was accounting for almost 60 per cent of all baptisms (the same as the English statistic), a stark contrast with the position eight decades previously, when less than one third of all baptisms occurred on that day. Similarly, for the other days, there was little change in their relative popularity over time, except during the decade 1681-90, when Thursday appears to have become increasingly popular and Monday became less popular, but this may be more a reflection of limited data than of actual popular choices (figure 127). This steady increase in the popularity of Sunday in the closing decades of the eighteenth century is important, as it is likely a manifestation of a lengthening birth-baptism interval, which is consistent with the trends that Wrigley and Schofield observed for England at that time.⁴² If baptisms did not occur within a few days of birth, then there was a greater opportunity for parents to choose their preferred day for the ceremony, thereby inevitably boosting the popularity of economically and socially advantageous Sunday. The reason for this is uncertain, but it is most likely a reflection of greater confidence among Protestants with regard to Protestant baptismal and spiritual doctrines. There was no Protestant limbo, so although baptism may have been desirable, death before baptism did not preclude entry to paradise, as it did for non-baptised Catholic infants. Although this represented the official Anglican

position, however, it may have taken time for acceptance of the certain salvation of the non-baptised infant to be accepted within popular Protestant culture.

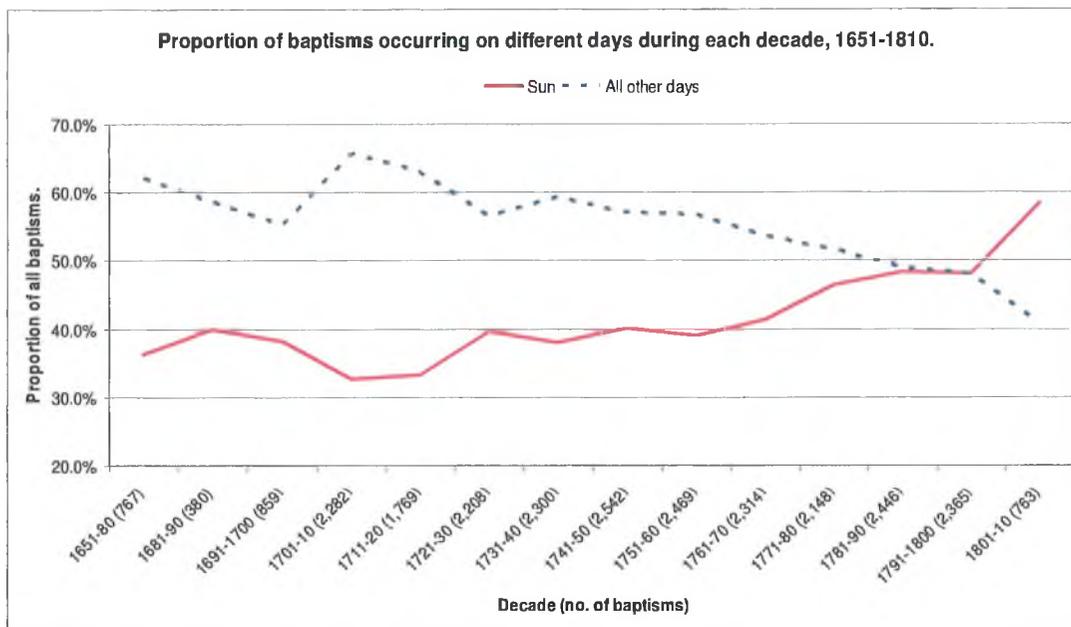


Figure 126 – Baptisms on Sundays and non-Sundays, 1651 – c. 1810 (total of 25,612 baptisms (unknowns excluded)).

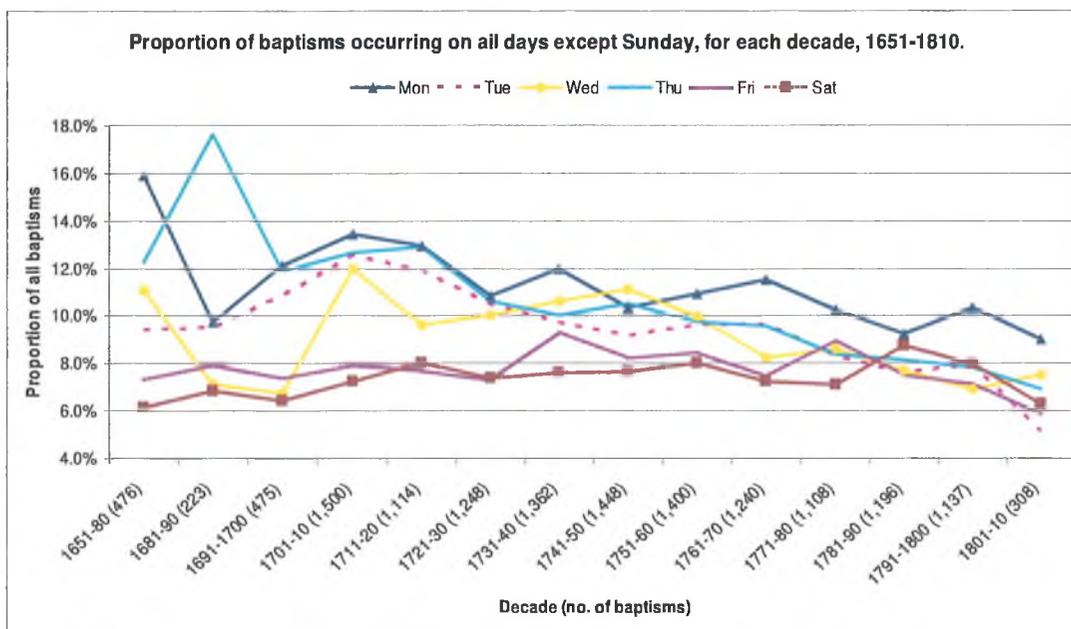


Figure 127 – Baptisms on all days but Sunday, by decade (14,235 baptisms).

Some further trends deserve comment. First, before the year 1775, Sunday only accounts for more than 50 per cent of all annual baptisms during four years – 1686, 1691, 1693 and 1697. This is somewhat surprising, because, bearing in mind the consistently dominant position of Sunday with regard to all other days of the week, it could be expected that statistical fluctuations would have regularly boosted Sunday's position above 50 per cent of all baptisms during any year. Since these four years are clustered around a period of greatest threat to the Protestant interest and subsequent delivery from the evils of Popery, may represent an indication of increased involvement with the church at this period. Wicklow's Protestants were probably rallying to their church in greater numbers during this period of enhanced danger.

Secondly, even if the data is considered on a yearly basis the above patterns are consistently maintained. Sunday was the most popular day for baptisms for all but one year between 1665 and 1810, and for that exceptional year, 1678, only sixteen baptismal records are available, which likely corrupts any calculation. Within this consistent trend, however, internal fluctuations occurred, which provide further evidence on the conflict between Protestant baptismal ethics and Protestant popular culture before about the 1770s. Figure 128 shows the proportion of all baptisms occurring on Sunday between 1710 and 1760. The troughs in the plot are the most interesting, because they highlight the clear link between baptismal timing and the contemporary economic position; during heightened subsistence challenges, the popularity of Sunday as a day for baptisms decreased, often dramatically. It is notable that the popularity of Sunday dipped specifically in 1715, 1723, 1725, 1729-30, 1739-40, 1745-7, and 1756, all of which were introduced in chapter three as representing (or following) periods harvest failure or economic difficulties. The consistency of this trend strongly implies that Sunday baptism was considered the luxurious ideal, which was honoured during normal years, when food was plentiful, the population was healthy and mortality was low. However, once a subsistence crisis arose, the birth-baptism interval contracted, as parents had their children baptised quickly, rather than take the chance of them dying without having received baptism, in spite of the absence of any ecclesiastical or spiritual censures.

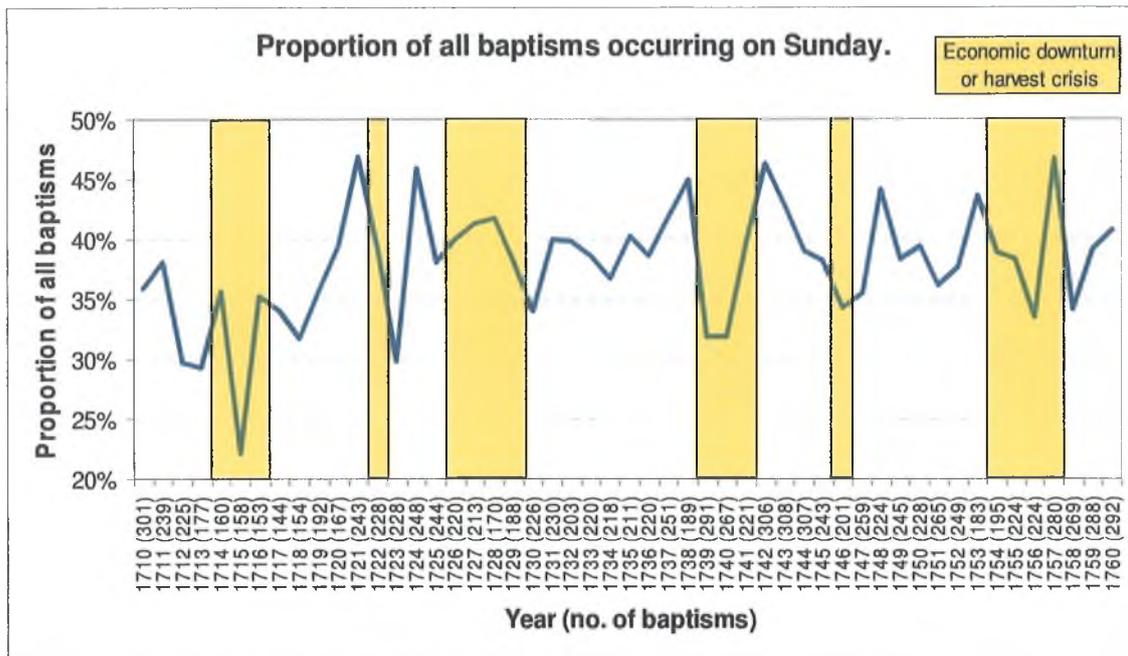


Figure 128 – Fluctuations in the popularity of Sunday as a day for baptism, 1710-60.

Thirdly, an urban and rural divide was evident in the timing of baptism, although the determination of precise urban specifics is hampered by the relative size of the dataset (N=4,028). For England, Roger Schofield also observed differential trends in some market towns, including at Gainsborough, where Saturday emerged as the most popular day at the outset of the nineteenth century.⁴³ Within Wicklow, similar urban trends were evident, and although Sunday was the most popular day for baptisms in the towns, too, the popularity of that day in rural areas was significantly greater than in the more urban parishes (figure 129). For the purpose of simplification, the entire data for the three parishes of Athy, Carlow and Naas – proportionately the three largest urban areas – have been designated as urban parishes, even though these parishes also encompassed substantial rural populations, and the remaining parishes have been categorised as rural.⁴⁴ In rural parishes 43 per cent of all baptisms occurred on a Sunday, whilst the comparable figure for urban parishes was just 31 per cent. More baptisms were held in urban areas on the three mid-week days of Tuesday through Thursday (35 per cent), than on Sunday, but in rural areas these days accounted only for slightly more than half of the Sunday total. The reason for the greater importance of Sunday in rural areas

is unclear, although proximity to the church, a better communications infrastructure and possibly a greater frequency of church services in urban areas, may all have presented urbanites with greater choice in terms of the days available for baptism.

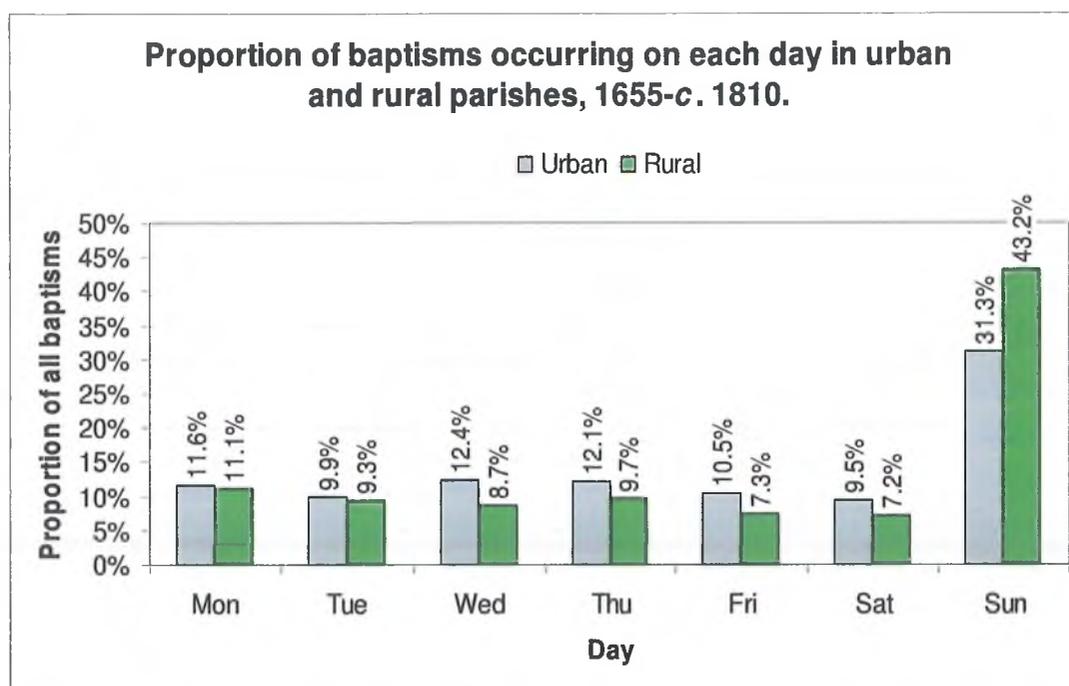


Figure 129 – Distribution of baptisms per day in urban and rural areas (21,584 rural baptisms, 4,028 urban baptisms).

Finally, a consideration of how the timing of baptism may have varied during the year also indicates further urban/rural distinctions, and some similarities, and for both areas, strong correlations between the timing of baptism and temporal patterns within the local economy are evident. Within both urban and rural areas Sunday's popularity as a baptismal day peaked during the summer and autumn months, and dipped during the spring (figure 130). In rural areas the Sunday baptismal peak during the autumn and the spring dip can be correlated with the fluctuating demand for labour during the agrarian cycles. At times when the demand for agricultural labour was low the opportunity cost of a mid-week baptism was also low, but during the harvest period, when all available labour was required, the economic penalties associated with baptism on a working day were higher. In urban areas, however, the pattern is less easy to explain. During

February the number of Sunday baptisms plummeted to just one in five, but in July through September two in five baptisms occurred on Sundays. The dip in popularity during February and March may be an indication of increased attendance at church services during Lent, while the late summer and autumn peak may be a further indication of the importance of the harvest to urban areas, because otherwise a dip in the popularity of Sunday at this time could be expected, because of heightened summer mortality in urban areas.⁴⁵

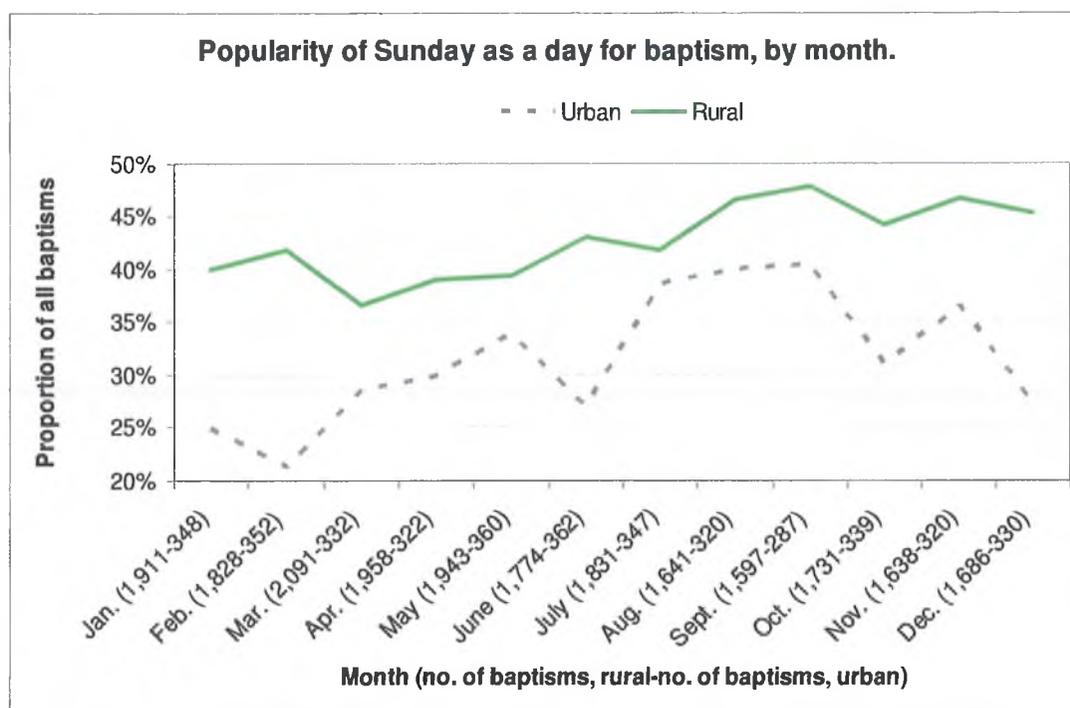


Figure 130 - Varying popularity of Sunday as a day for baptism in urban and rural areas.

For the Catholic community a similar, but significantly different, pattern is evident in respect of baptismal timings. Unlike for Protestants, serious perpetual spiritual consequences occurred if a Catholic infant died before baptism, and, hence, Catholics could not afford the luxury of postponing baptism until the following Sunday. For England, during the mid-1550s, under a Catholic queen, Schofield observed a 'reversion of Catholic discipline' when the 'even-split distribution of baptisms was re-established almost exactly'.⁴⁶ Within Wicklow's Catholic parish, Sunday also proved a less popular day for baptisms than for Protestants, although the figure never approached the 14.3 per cent equitable

distribution that appears to have been exhibited within Marian England. In Wicklow parish, rather, Sunday accounted for less than 30 per cent of total baptisms, recorded between 1748 and 1788. Furthermore, the four most important days for baptisms (Sunday, Monday, Thursday and Tuesday respectively) were the same for both denominations, although their ranking varied.

Figure 131 shows the daily distribution of baptisms for the Wicklow Catholic parish between 1748 and 1788, and also the daily distributions for the same period for two specific Protestant datasets (Wicklow Church of Ireland parish, and all Wicklow Church of Ireland parishes). Although Sunday may have been proportionately a more important baptismal-day among Protestants, the statistical distributions for Wicklow's Church of Ireland parish bear a closer resemblance to the equivalent Catholic distributions than to the broad Protestant distributions. Notably, while 43 per cent of all Protestant baptisms occurred on a Sunday, only 31 per cent of Wicklow parish's Church of Ireland baptisms occurred on that day, almost the same as the Catholic proportion, of just 29 per cent. This similarity is likely no more than a coincidence, however, because the reduced popularity of Sunday for Protestants is probably a reflection of the lower popularity of Sunday as a baptismal day in urban areas, which was described earlier (figure 130), but for Catholics the primary impact was certain to have been the influence of Catholic doctrinal teaching.

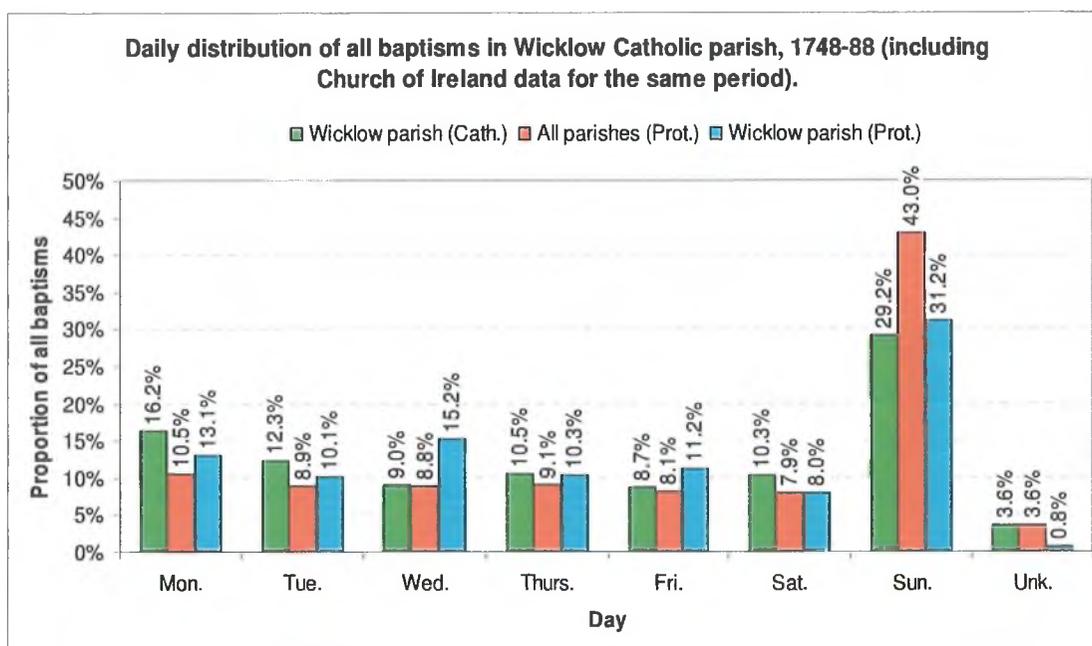


Figure 131 – Proportion of all baptisms recorded in Wicklow Catholic parish (1748-88) occurring per day (N = 3,492 for Wicklow parish (Catholic), 1,480 for Wicklow parish (Protestants) and 9,541 for all Protestants datasets).

Earlier it was shown that Protestant baptisms were often performed on holy days, and so too, the timing of Catholic baptisms was also influenced by the occurrence of holy days, although it was Protestant, rather than Catholic, holy days that had the greatest impact. The underlying cause of this tendency was economic. Specifically Protestant-oriented holy days and celebrations, such as 30 January, 29 May, 23 October or 5 November were labour-free days for both Catholics and Protestants, but holy days unique to Catholicism, such as St Patrick's, St Kevin's or St Brigit's Day, were illegal, and refusal to work on those days could bring punishment or a financial penalty. It is to be expected, therefore, that Catholic holy days would have impacted only minimally on baptismal timing, but that Protestant holy days would have been more popular, because they impacted less on the real wages of Catholic parents. From figure 132, which shows the distribution of Catholic baptisms among weekdays and holy days, the popularity of Protestant holy days for baptism is clear, although the Established Church had a greater number of holy days (thirty-three aside from all Sundays) than the Catholic Church, which had little more than half that number.⁴⁷ Clearly,

Catholic religious practices were heavily influenced by Protestant social dominance, at least in the vicinity of Protestant Wicklow town.

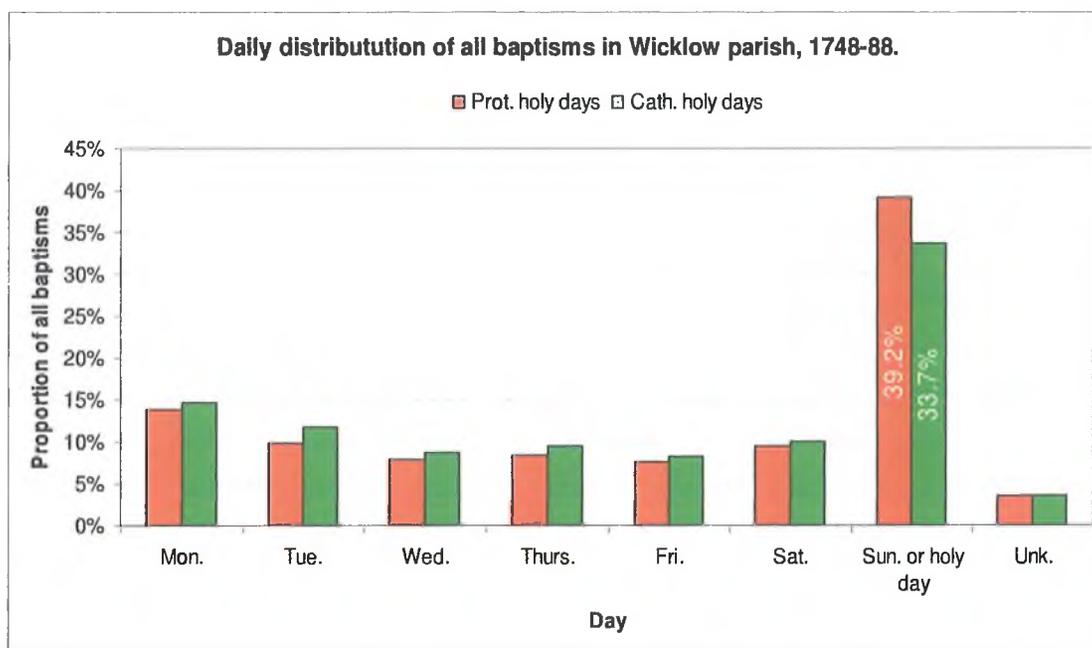


Figure 132 – Proportion of all baptisms recorded in Wicklow Catholic parish (1748-88) occurring on Catholic and Protestant holy days.

SEASONAL PATTERNS – BURIALS

It is clear from the above consideration of baptismal seasonality and timing, that personal choice played a significant but not exclusive part in determining the timing of baptisms amongst both the Protestant and the Catholic communities. At the other extreme of life, however, the situation was very different, and the options for personal choice were far more limited. Thus, while preferred times and days for baptisms may have changed depending on the quality of the harvest or the demand for labour, the timing and seasonality of death and burial was more steadfast. In the English context, this can be clearly seen, for example, by a cursory comparison of the graphical presentation of baptismal and burial seasonality presented in Wrigley and Schofield's *Population of England*.⁴⁸ While the baptism graph changed considerably over time, reflecting changes in the calendar, a lengthening birth-baptism interval and changes in social conventions, the burial statistics remained virtually unchanged over a period of three centuries.

Such a scenario is not unexpected. While in the short term occurrences such as the outbreak of infectious disease may precipitate a brief increase in crisis mortality, over the long term mortality patterns can be expected to have remained relatively stable. It is true, of course, that in the long-run, changes in agricultural practices or in a community's diet or nutritional state may, at least in theory, have effected shifts in the pattern of seasonal mortality; a move from grains towards potatoes, for example, could be expected to gradually shift a mortality peak to earlier in the year, since the potato matures earlier than grains. However, such dietary changes typically would have occurred within sub-groups of a population, and, as a result, any such changes are likely to be lost in the statistical haze enveloping fundamental, and broad, patterns.

In the English context, burials peaked during the spring and dipped during the summer months, a pattern which is largely similar to that country's baptismal seasonality, described earlier.⁴⁹ Whilst, the seasonality of baptisms should also be reflected in burial seasonality – because of the high rates of infant mortality in the early modern period – Wrigley and Schofield argue that the typical burial-seasonality trend was determined by adult rather than infant mortality.⁵⁰ Two other of their observations are also important for the purposes of this study. First, they note that burial seasonality across northern Europe was fairly similar, but differed substantially from mortality-seasonality in southern European regions.⁵¹ This being the case, then it is reasonable to expect that Wicklow's seasonal patterns should closely reflect the patterns observed for England. Secondly, they observe that urban burial patterns could be very different from trends in the surrounding areas, citing as examples the experiences of Ipswich, Norwich, Shrewsbury and London. In some instances bouts of plague disrupted normal patterns, but even during plague-free years urban-specific patterns were observed. In larger cities, in the early modern period, for instance, the spring burial-peak was often conspicuously absent, but burials peaked during the summer months, when 'high density and imperfect sanitation' facilitated the spread of fly-borne disease.⁵² Obviously one cannot equate the minor urban centres in the greater Wicklow area with large cities, but even in the county's larger towns specifically urban trends may be anticipated.

Figure 133 shows the indexed burial aggregates for each month for all 13,243 burials recorded in seventeen parishes in greater Wicklow's Church of Ireland registers between 1700 and 1799, for twenty-five-year periods, with 100 representing the expected level, based on the number of days during each month for each specific period. The Wicklow data dovetail closely with Wrigley and Schofield's English data for the same period. During all four periods burials peaked as a proportion of the expected figure in either of February, March or April and were lowest in either of July, August or October. Underlying this similarity, however, is a near imperceptible shift in fundamental burial patterns. In 1700-24 the month with the highest expected number of burials was February. By 1725-49 March recorded the highest number of expected burials but in 1750-74 and 1775-9 April had become the most over-represented month. A similar shifting is observed if the month with relatively fewest burials is considered, which changed from July in 1700-24, to August in the next period and October for the last two periods. Thus, the burial pattern appears to have been gradually shifting during the century, but by a greater degree than could be accounted for by the eleven-day shift in the calendar in 1752. Comparisons between Wrigley and Schofield's statistics are hindered by the long-term view that they take (fifty-year periods), but a similar pattern may have been occurring in England at that time. Although they make no comment about the existence of such a trend, noting only that the seasonal patterns changed little over time,⁵³ nonetheless the month with relatively fewest burials in 1700-49, July, had given way to August in 1750-99 and the second and third most popular months in 1700-49, June and August, had become July and September by the latter period.⁵⁴ Neither is this apparent trend, coincident on the choice of these particular twenty-five year period sequences, because if different periods are considered, such as bi-decades (1700-19, 1720-39) or decades (1700-9, 1710-19, 1720-9), a modest shift in the burial pattern remains consistently evident (figure 134 for view by decade).

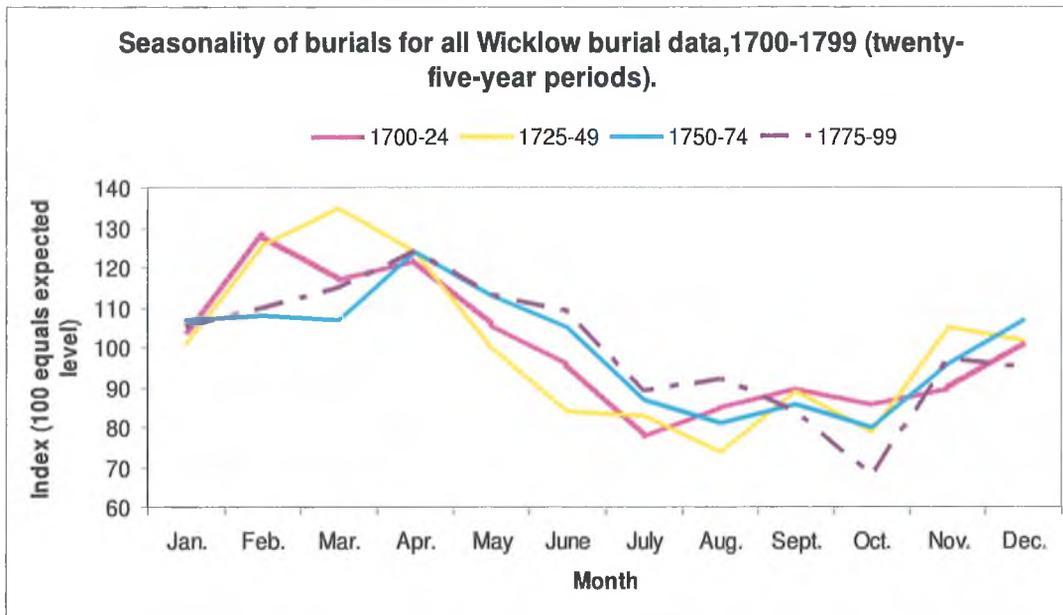


Figure 133 – Seasonality of burials from Wicklow Church of Ireland parish registers, 1700-99, for twenty-five year periods (total of 13,243 burials).

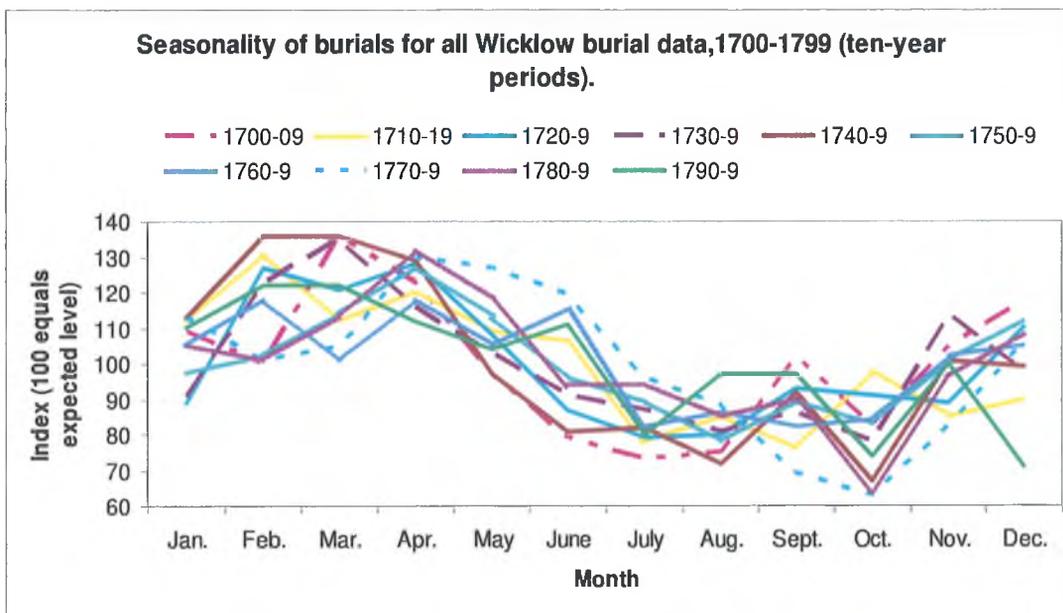


Figure 134 – Seasonality of burials from Wicklow Church of Ireland parish registers, 1700-99, for ten-year periods (13,243 burials).

Nonetheless, despite any modest drifts in burial seasonality which may have occurred, the broad fundamental patterns of spring burial peaks and summer-autumn burial dips remained unaltered during the course of the eighteenth

century – just as spring was the birthing time for humans in County Wicklow, so too was it the dying time. These general trends appear to have held sway on both sides of the Wicklow Mountains, and in urban parishes, and although there are some subtle differences evident between town and country, the few towns in the region appear to have been of insufficient size to impact greatly on the typical latitude-determined seasonality patterns (figures 135 and 136). In the predominantly rural eastern parishes, burials peaked in February, March or April throughout the eighteenth century, as was the case in the scattering of urban parishes to the west of the mountains. The only exception to this standard pattern was in the latter quarter of the century, when the burial peak shifted into May in urban parishes, although the number of burials available for that period amounts to only 384.

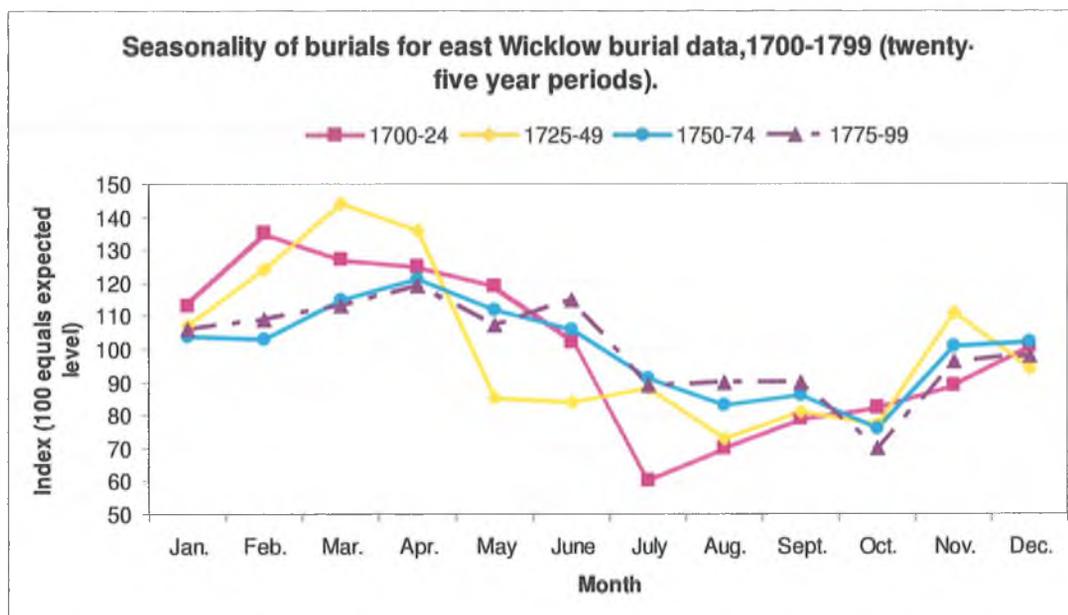


Figure 135 – Seasonality of burials from east-Wicklow Church of Ireland parish registers, 1700-99, for twenty-five year periods (8,578 burials).

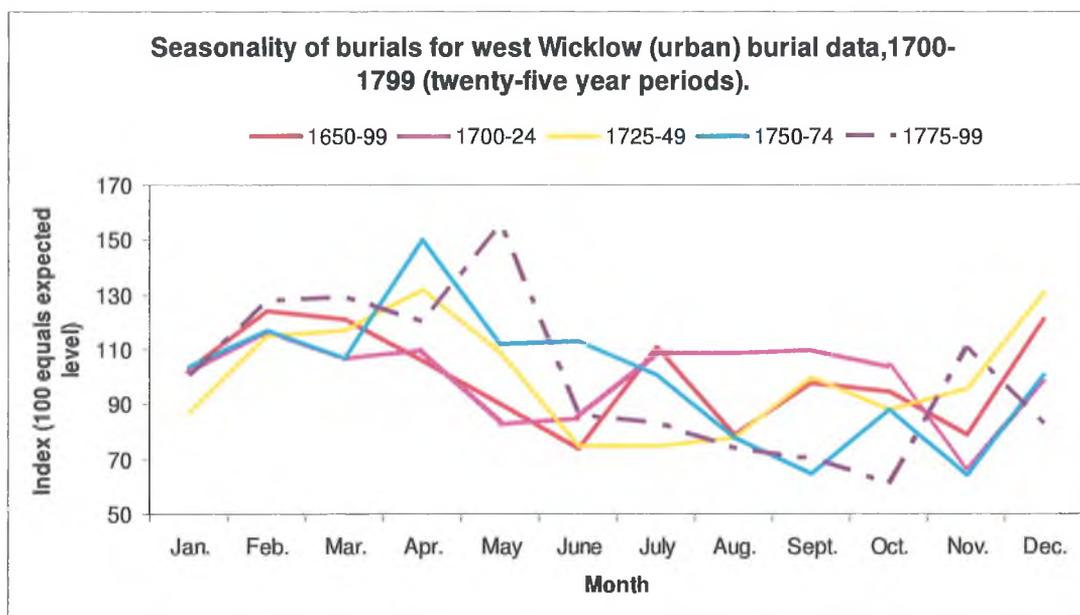


Figure 136 – Seasonality of burials from west-Wicklow urban Church of Ireland parish registers, 1700-99, for twenty-five year periods (2,258 burials).

Even during periods of demographic distress this seasonal pattern of mortality was usually consistently maintained, although the nature and characteristics of each individual crisis could always produce anomalous results.⁵⁵ In figure 137, the monthly index of burials for all years and for crisis years are presented. The similarity between the two indexed plots is striking, although it is notable that the plot of the burial index for the years of distress is marginally flatter than the plot for the entire dataset. Two simple calculations can confirm this. First, the standard deviation for ‘all years’ is 14.3, compared to 12.0 for the distress years. Secondly, the ratio of the maximum monthly index to the minimum monthly index for all the data is 1.55, but for the years of distress this ratio is slightly lower, at 1.47. This suggests that while the general pattern of seasonality was broadly maintained during crisis mortality years, the relatively greater homogeneity in the figures implies a marginally greater tendency for deaths to occur throughout the year during difficult times.

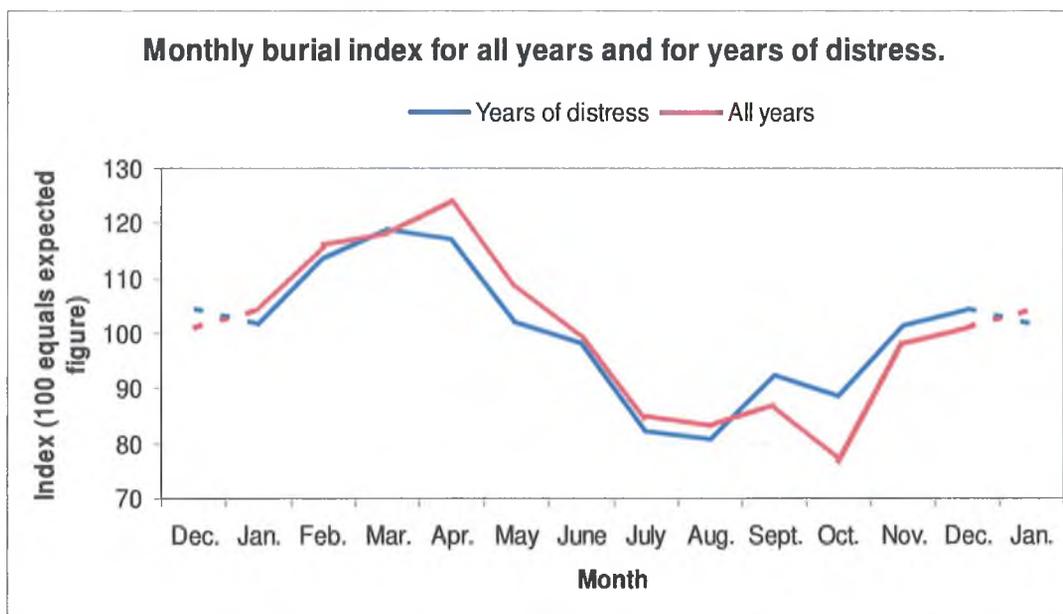


Figure 137 – Comparison of the monthly burial indexes for all burial data (1660-c. 1810) and for burial data recorded during years of known distress.

Note: the years which have been included in the crisis years dataset are 1708-09, 1725-9, 1739-41, 1745-7, 1755-7, 1763, 1766-7, 1773 and 1782-3.

Of course, the plot of monthly indexes for crisis years shown in figure 137 represents an amalgam of the burial statistics for twenty-two years during the eighteenth century, but individual crises may have had their own unique fingerprints, distinctive from the general trends. An outbreak of a fly-borne disease, for example, would operate to boost the death toll during the summer months, whereas a flu epidemic could be expected to boost the death toll in winter or early spring. The principal difficulty in determining burial indices for individual years stems from the small number of burials which are recorded per year. Because of this, an increase in just one or two burials during a particular month can result in spurious spikes or chasms in the index plots, which may not be representative of the actual mortality situation. Notwithstanding this concern, however, and even for months with small burial totals, the fundamental burial index patterns remain reasonably consistent with the general trends during crisis years. During the years 1728 to 1730, for example, the burial index exceeded 100 during the spring months, and fell below 100 during the autumn of 1728 and 1730 (figure 138), as was the typical pattern (figure 133). During the autumn of 1729,

however, the calculated index uncharacteristically rose above 100. While the monthly burial aggregates from which these trends are derived are uncomfortably low, the repeated harvest failures of the late 1720s, and the famine conditions of 1729, do lend credence to this monthly-index trend. In particular the soaring indices during the spring months (approaching 200 in the spring months in 1728 and 1730, and 150 in spring, 1729), while perhaps exaggerated by the low number of burials, must represent intense distress caused, at least in part, by deficient harvests during the previous autumns.

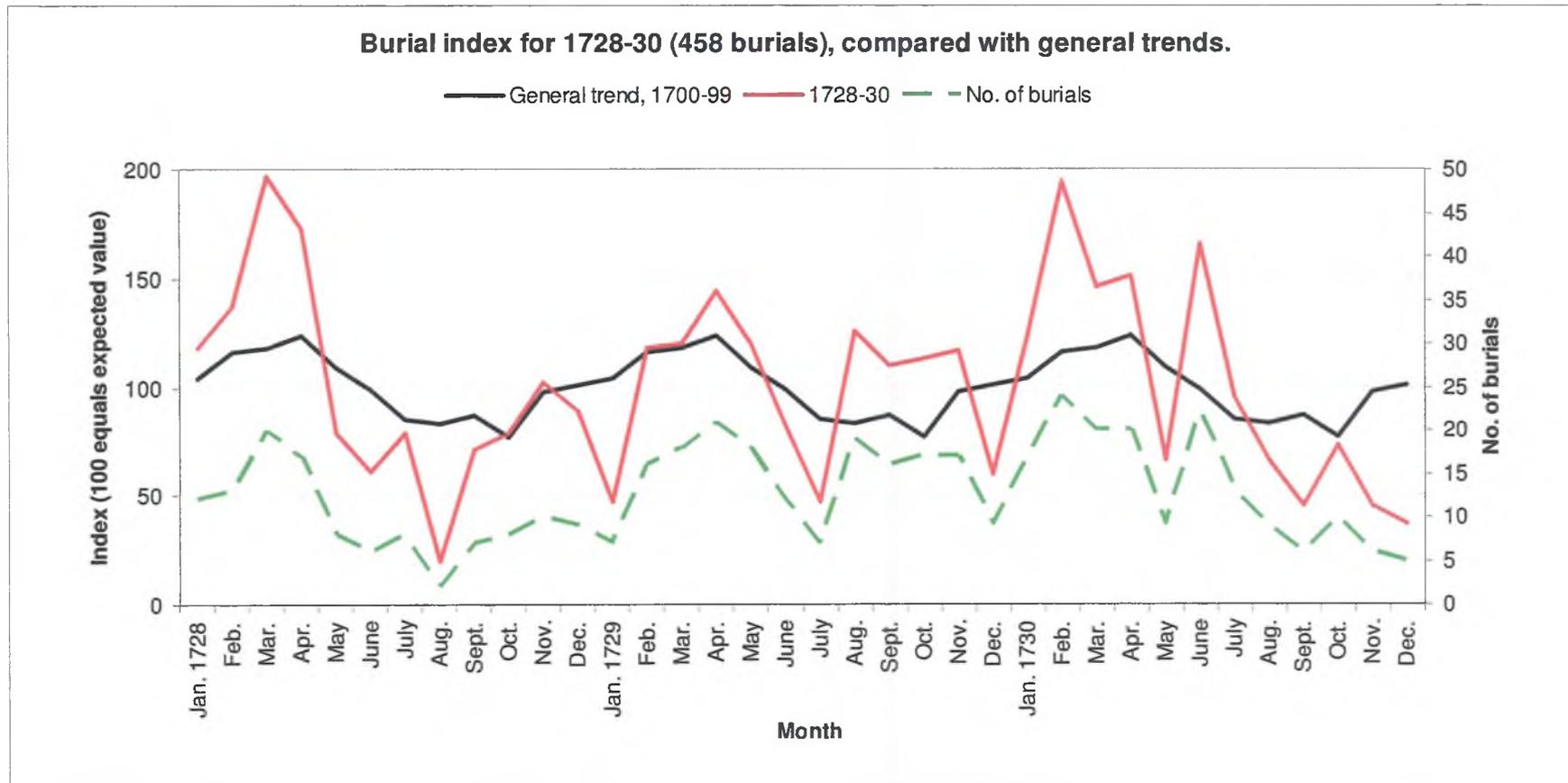


Figure 138 – Monthly burial index for 1728-30, compared with the general index for 1700-99; also showing the number of burials recorded per year (secondary axis).

Figures 138 and 139 show the calculated burial indices for two three-year periods coinciding with the most intense crises experienced in the Wicklow region during the mid-eighteenth century (1728-30 and 1739-41). More burials were recorded during the latter period, so the calculated monthly indices for that period are likely to be statistically more credible, providing an opportunity to discern some of the characteristics of the 1740-1 famine. The low crop yields in autumn 1739 initially resulted in a sharp increase in burials in November and December, but the intense cold which commenced on 30 December and lasted through January 1740 did not sustain an above-average level of burials, although the numbers did continue to rise during that month. The peak month for burials during this crisis was February 1740, during which thirty-five burials are recorded in the various registers. Over the coming months the burial index dipped, in line with the general trends, and in August 1740 burials were only half the level that could be expected, based on a proportionate distribution of the annual total for that year. David Dickson has described the spreading of virulent diseases, which raged in various parts from July 1740 through the autumn and winter of 1740-41,⁵⁶ but no traces of such diseases are explicitly recorded in the surviving registers of County Wicklow. The only parish registers which record the cause of death for this period are the registers for Blessington, but only Richard Hornidge senior, who died from 'pluristick ffeavor', is noted as having died of exceptional causes during that time.⁵⁷ Nonetheless, the burial trends in the latter half of 1740, rising from a low level in August to a sharp peak in November, at which time burials were 50 per cent above the expected figure, is a strong indication that dysentery, which Dickson describes as achieving 'its full impact in many districts around mid-winter' may have been having an impact at this time.⁵⁸ Commonly associated with warmer weather, dysentery epidemics typically ceased during the colder months, so the sharp drop in recorded burials in December and January reinforces the suspicions that this disease was present. During 1741, although the burial levels remained high, likely as a result of reduced health-levels following a prolonged period of malnourishment, the burial index closely tracked the general index trends, indicating a return to normal conditions, and the end of the crisis.

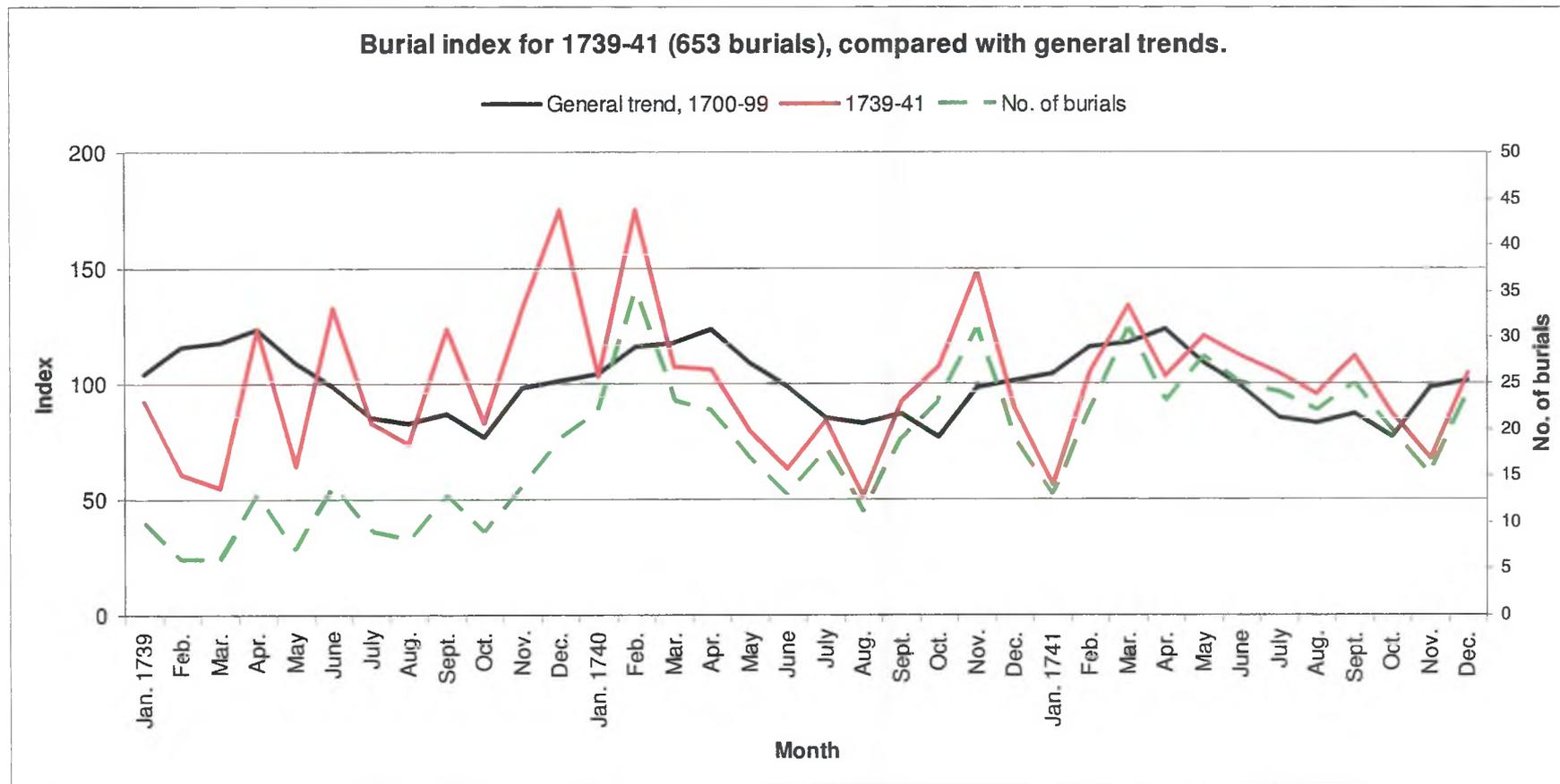


Figure 139 – Monthly burial index for 1739-41, compared with the general index for 1700-99; also showing the number of burials recorded per year (secondary axis).

It was presumed earlier that burials took place rapidly after death. This is a general presumption, which is commonly cited by demographic historians without actually subjecting the consideration to any analytical consideration.⁵⁹ It is, of course, common sense to assume that bodies, subject to rapid decomposition, were swiftly disposed of, although periods of heightened crisis could have placed burial practices under short term strain. Nonetheless, it remains desirable to verify this presumption.

Of 15,056 burial entries in the registers for greater Wicklow between 1662 and *c.* 1810, only 279 contain both death and burial date data, so little evidence is forthcoming from that quarter. For Carlow, however, the burial data has been recorded with sufficiently consistency between 1743 and 1754 as to be of use for determining this interval. During these years, out of a total of 330 burials recorded, a death / burial interval can be calculated for all but ninety-one of the entries (71.5 per cent). For these entries, only one entry records an interval exceeding seven days, and the vast majority of interments occur within one or two days of death.⁶⁰

In the absence of further explicit data on the subject, however, another method is available. If the interval between death and burial was typically no more than two or three days then this must imply that burials would have been roughly equally distributed among the week's days, with about 14.3 per cent occurring each day. Figure 140, which shows the proportion of total burials occurring on each day from the data for all seventeen parishes between 1662 and *c.* 1810, clearly corresponds to this concept of homogeneous distributions, which, although it may not represent conclusive proof of a brief interval, provides strong evidence that this was likely the case.

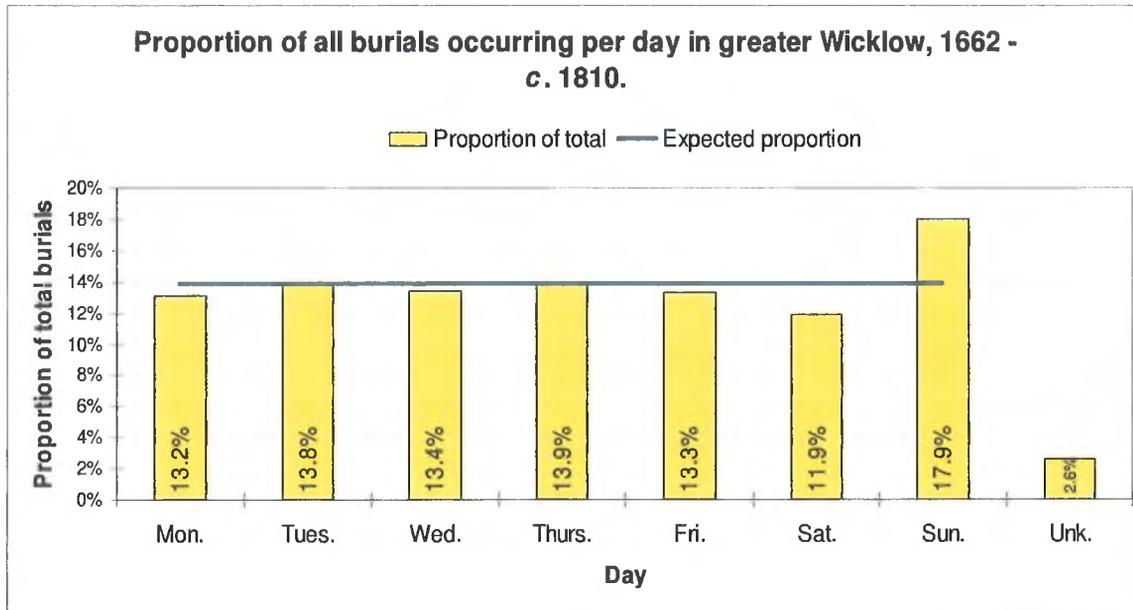


Figure 140 – Proportion of burials occurring each day in the Wicklow region, 1662 – c. 1810 (expected level shown at 13.9 per cent, because of 2.6 per cent unknowns).

Notably, Sunday emerges as the most common day for burials, although the proportion was unlikely to have exceeded 19 per cent, and if the 2.6 per cent unknowns are excluded, only 18.4 per cent of all burials occurred on that day. No other day experienced more than the expected share of burials, and the only other days that diverged by more than 0.5 per cent (excluding the unknowns) from the expected level were Monday, Friday and Saturday. Saturday was the only day for which the deficit exceeded 1 per cent. That the greatest divergence occurred for the days surrounding the most popular day for burial cannot be a coincidence, and indicates that burials were scheduled, if possible, for a Sunday, in line with patterns that have been observed for England.⁶¹ It is unclear if this preference for a Sunday burial represents the preferences of the clergyman or the relations of the deceased, although it seems likely that both parties probably favoured that day. It is reasonable to speculate, also, that, as was observed earlier in the case of the timing of baptisms, economics may have been contributing to this tendency to avoid Saturday burials, because it may have interfered with the collection of wages.

If urban and rural areas are compared, some slight differences in burial scheduling emerge, which can provide further evidence about the likely different characteristics of urban and rural communities. In both urban and rural parishes Sunday was the most and Saturday the least common day for burials, although the range for rural parishes was slightly greater (figure 141). In rural areas Sunday accounted for 18.6 per cent and Saturday for 12.1 per cent of all burials for which a burial day can be established, but the equivalent statistics for urban centres were 17.6 and 12.6 per cent respectively. Earlier it was noted that the baptismal data for urban parishes was also more homogeneous than the rural dataset, so perhaps this is another indication of the greater availability of church services, particularly on holy days, or the easier access to the church in urban areas. Although the urban statistics have been calculated from just 2,800 burials, compared to the 12,200 entries in the rural data, similar statistics can be observed in other urban registers (appendix 41).

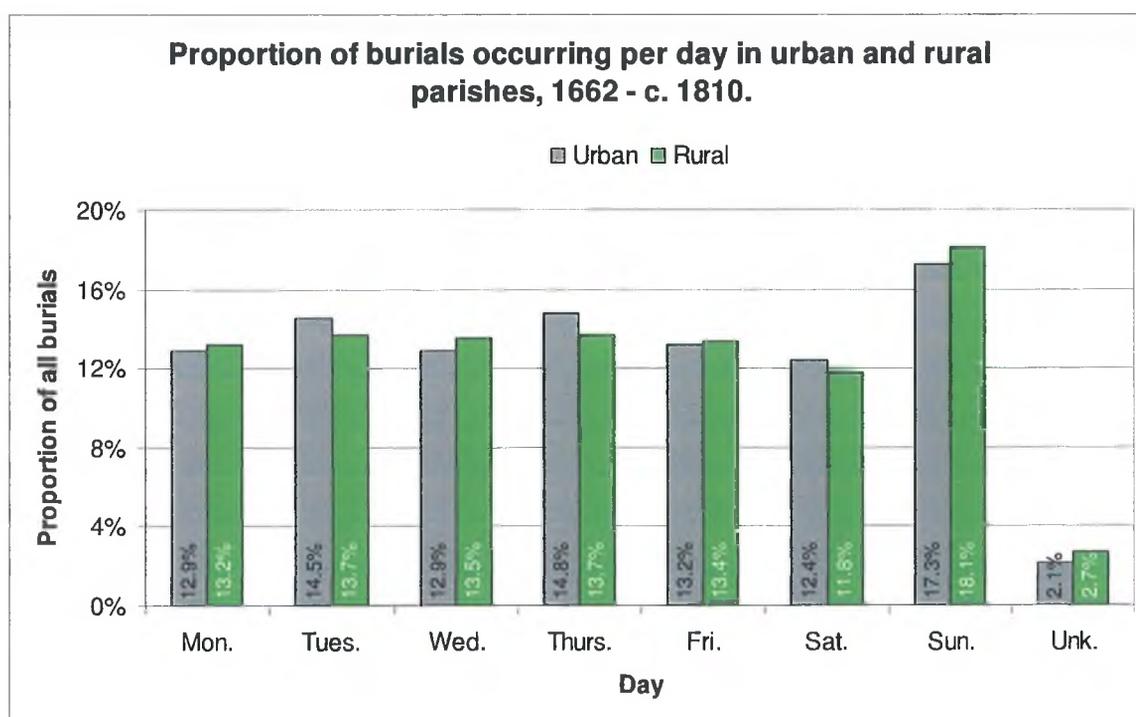


Figure 141 – Proportion of burials occurring per day in urban and rural parishes, 1662 – c. 1810 (12,245 burials for rural and 2,811 burials for urban datasets).

Unfortunately there are no Catholic-specific data available to permit the examination of Catholic patterns of death or burial. It is not, of course, unfeasible that the dying patterns of the two denominational groups differed somewhat, as these trends were likely influenced by a variety of factors, including diet, social support structures, real wage levels and access to land, or industrial opportunity. In reality, however, denominational groupings were unlikely to be sufficiently homogeneous and sufficiently characteristically unique as to have permitted any denomination-specific mortality influences to become dominant. Thus, all the evidence suggests that the dying time in County Wicklow was consistent with the dying time across northern Europe. This trend appears to have been consistent across the county, within the regions and within geological and physical sub-structures. People probably died in Wicklow in the spring, regardless of whether they consumed meat, grains or potatoes. Furthermore, while baptismal seasonality may have changed over time, and while Protestant and Catholic parents may have favoured different periods of the year, or even different days of the week, for their baptisms, burial seasonality was omnipotent, regardless of whether the community's spiritual allegiance was oriented towards Rome or towards Armagh.

SEASONAL PATTERNS – MARRIAGES

'Of the three vital events the selection of the marriage day presumably provides the firmest evidence required concerning the preference of ordinary people for a holiday on which to celebrate this major festival'. Thus argues Roger Schofield, in suggesting that it is the marriage-day aggregates that can provide the most convincing evidence for people's choices concerning 'days of leisure'.⁶² So too for Wicklow, 'choice' emerges as a crucial determinant concerning the seasonality of the monthly pattern of marriage, and the distribution of marriages throughout the days of the week, although personal preferences did not operate to the exclusion of other influences.

In the realm of marriage timing, again English demographic analysis concerning annual cyclical fluctuations and weekly distributions can provide the most

useful framework within which Wicklow's marriage datasets can be examined. Kussmaul's conclusions concerning the link between local economics and local marriage-distribution patterns have been cited earlier. Also, Wrigley and Schofield's *Population history of England* provides important statistical evidence for the cyclical fluctuations in the timing of marriage; specifically they observed a huge dip in marriages in March and April, a peak during the spring and early summer, a substantial drop in late summer and early autumn, a sharp increase in marriages in October and November, and a decline in December.⁶³ The decline in marriages during March and December coincided with the ancient prohibitions on marriage, during Lent and Advent, and reflects how, notwithstanding changes in church doctrine, popular cultures and ancient traditions could operate to maintain a previous social calendar.

However, these dips were more pronounced in earlier times, and with the progression of time the influence of both prohibitions was observed to have been gradually reduced. In the period 1540-99, for instance, the index for March was just eight (8), and for the period 1600-49 the figure had risen to just twenty-two. By the beginning of the nineteenth century, however, the index for March, while still the lowest of all months, had risen considerably since the sixteenth century, to seventy-three.⁶⁴ Also in the sixteenth century, October and November were by far the most popular months (indexes of 184 and 201 respectively), as people shoe-horned their marriages into the tight temporal space between the ending of the harvest and the commencement of the ancient prohibited period, during Advent. As a consequence of this prohibition, December was the second least popular month for marriages at that time. However, as with the Lenten prohibition, the popularity of December as a marital month also increased, while October and November declined in popularity. By the end of the nineteenth century, although October and November remained the two most popular months for marriage their dominance had been lessened considerably (indexes of 132 and 125 respectively), and December, which had been an unpopular month centuries earlier, had become the third most popular month for marriage. Since the Advent prohibition had completely fallen out of use at this stage, it seems

reasonable to surmise that the better-than-expected figures for October and November were by this time exclusively a result of economic factors.⁶⁵

Wrigley and Schofield's examination represents a bird's eye view of marriage-trends, but even at the local level in England, marriages typically dipped during the March, and increased in the late-spring and early summer period.⁶⁶ Throughout much of north-west Europe, too, similar general trends in marital seasonality were experienced, although, since marriage is primarily a social event, it is not surprising that regional characteristics, typically centring round religion and agriculture, produced distinctive regional trends.⁶⁷ In Catholic regions, for example, the Tridentine prohibitions maintained the depressed number of marriages in Lent and Advent, while boosting marriages during the preceding and succeeding months, but in Lutheran countries during the eighteenth century, a similar general pattern to the English trend, but without the dips in Lent and Advent, has been observed.⁶⁸ The likely impact of regional agricultural practices can also be seen from twentieth century French data, where the summer minimum occurred in August in grain growing areas, but in September, when the grapes were ripe, in vine growing regions.⁶⁹

It could reasonably be expected that similar trends to those exhibited in England would be reflected in marital seasonality for Wicklow's Protestants, while Wicklow's Catholic trends would lie closer to those for the Catholic states of southern Europe, but this appears only to have been partly true, and the Lenten prohibition in particular appears to have proved even more appealing to Wicklow's Protestants than to English ones. 'Marry in Lent, you'll surely repent' was too convenient a proverb to be easily forgotten.⁷⁰ Before any analysis of marital statistics is undertaken, it should be remembered that the marriage records for all Wicklow's Church of Ireland parishes are defective, and in some cases contain long periods of under-recording or even non-recording. In total, for the period from August 1662, when the first marriages are recorded, until the end of December 1799, only 2,262 marriage records are available. Representing a mean of just sixteen marriages per year from fifteen

parishes, the records are clearly grossly deficient. Because of the paucity of marital data, the records for some parishes have been used up to 1850, which boosts the number of records by an extra 462, to 2,724.

Because the available marital statistics are clearly just a subset of the total number of marriages which occurred within the parishes, there is obviously a limit to the conclusions that can be drawn from the data. However, in the data there are no blatant biases, such as the operation of marriage shops, which would skew the data, by excessively promoting one or more months, or certain periods, at the expense of others. For timing and seasonality purposes, therefore, it seems reasonable to treat the data as a fairly representative sample of the dataset of total marriages occurring between 1662 and 1800. If the data is so representative, then the determination of seasonality or daily timings will not be impacted on or biased by the unavailability of the complete of marital records.

For the surviving Protestant church records the marriage index peaked significantly in the first two months of the year, unlike in England when October and November were the most popular months for marriage. The indexes for fifty-year and twenty-year periods are shown in figures 142 and 143, and the numeric data for these periods and for other periods are presented in appendix 42. Throughout the eighteenth century, pre-Lenten February was consistently the most popular month for marriage, regardless of the period examined. This seasonal peak was then followed by a plummeting index during March, which remained consistently the least popular month for marriage throughout the century. Similar to the observed English trends, the March index gradually increased as the century progressed, implying the gradual weakening of the customary prohibited period, but the rate at which this change was happening in Wicklow appears to have been slower. Of 223 marriages recorded during the second half of the seventeenth century, for instance, only four occurred during March compared with twenty or more during each of January, February, April and May. This corresponds to a marital index for March of just twenty-one, whereas Wrigley and Schofield determined a March index for the same period of forty-three.

During the same period September and October were the next least-popular months for marriages in the Wicklow region, whereas in England October's index was only marginally behind that of April, the most popular month.⁷¹

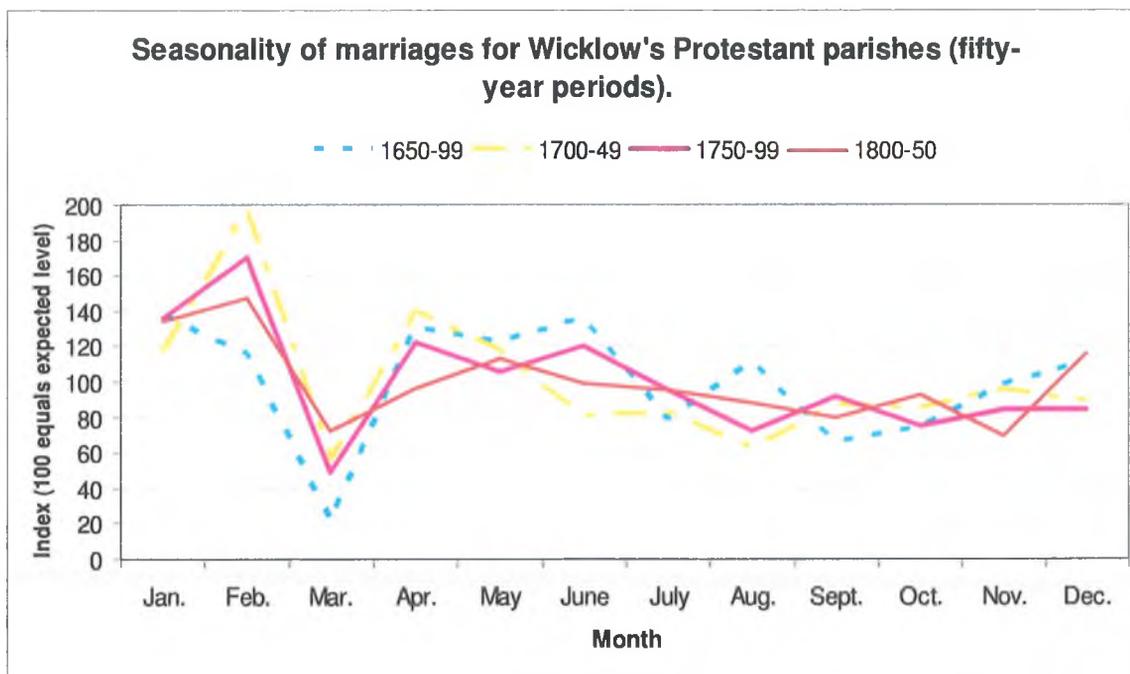


Figure 142 – Marital index for Wicklow's Protestant parishes, 1650 – c. 1850, fifty-year periods (2,655 marriages (69 unknowns excluded)).

During the period 1700-49 the March index had risen to fifty-five (forty-eight for England), but in the next half-century the index fell back to forty-seven, contrasting with the position in England, where it successively increased.⁷² It is doubtful, however, that this represents a fillip for the Lenten prohibition, and is more likely a coincidental outcome, stemming from the limited size of the dataset.⁷³ Notably, throughout the period 1650 to 1800 most marriages occurred during the first half of the year, and this became increasingly the case over time, although dataset limitations may be influencing the findings. In the period 1650-99, for instance, 55 per cent of marriages occurred during the first six months of the year, but between 1750 and 1799 almost 60 per cent of marriage records were occurring during those months.

The most striking feature of the Wicklow marital trends, when compared with the English equivalents, is the stark differences between the two, particularly in the light of the clear similarities between English and Wicklow baptismal and burial trends. In Wicklow a mid-summer peak is not consistently observed, but in England May or June were very popular times for marriage. In Wicklow, too, late autumn appears as a period of few marriages, but in England this was the most popular time for the celebration, although its dominance was waning throughout the eighteenth century. Wrigley and Schofield's explanation of the autumn peak revolves around the Advent prohibition, which, they suggest, still survived in popular culture, but clearly this was not the situation within Wicklow, where no indication of any avoidance of marriage during Advent is evident. Even for the earliest period, when traces of the custom might be expected, December was an above-average month for marriages, implying that the custom of avoiding marriage during Advent had died out within Wicklow's Protestant ethic well before the middle of the seventeenth century.

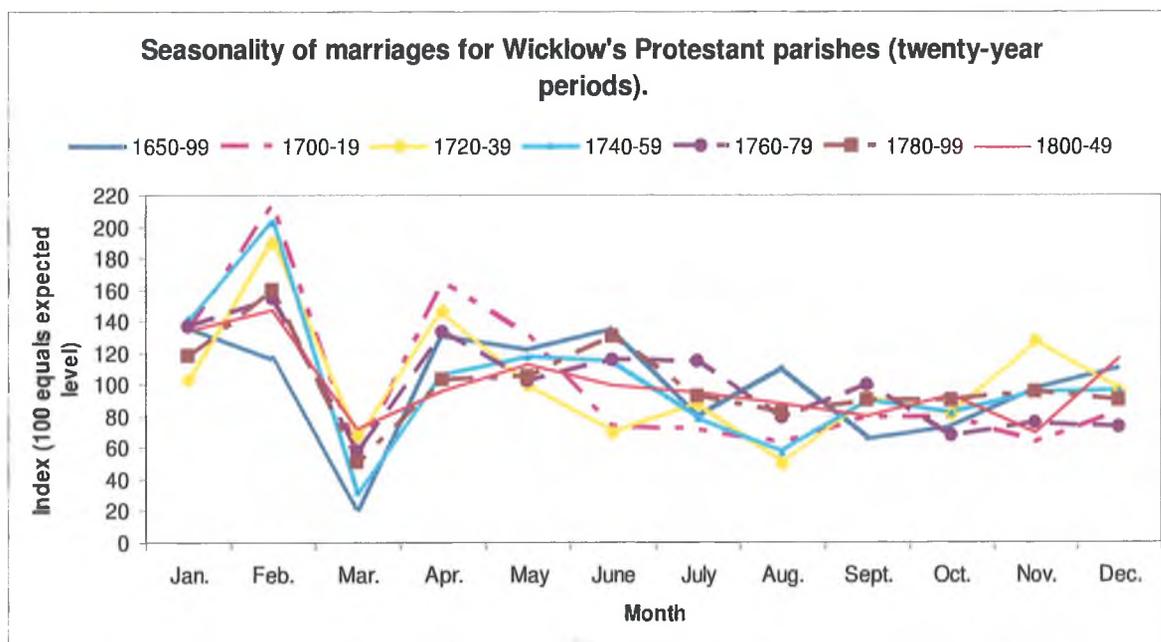


Figure 143 – Marital index for Wicklow's Protestant parishes, 1650 – c. 1850, twenty-year periods (2,655 marriages (69 unknowns excluded)).

Even if the data is rigorously considered over time, no consistent trace of the Advent prohibition can be discerned. In figure 144 the proportion of the total number

of marriages recorded during February, March and April which occurred during Lent and the proportion of the total number of marriages recorded during November and December which occurred during Advent are compared with the expected levels for bi-decades between 1661 and 1820. The duration of Advent can vary between twenty-two and twenty-eight days, but the mean duration between 1699 and 1820 was twenty-five days, so approximately 41 per cent of all marriages recorded during November and December can be expected during the penitential period.⁷⁴ It can be seen, however, that the Advent proportion of November and December marriages approximated to this expected level throughout most of the period under study, with the exception of the period between 1681 and 1700, for whence the dataset is small (just fifty-seven marriages) and predominantly urban. This confirms that the Advent prohibition was not maintained into the post-Cromwellian era (and probably not beyond Charles I's regicide).

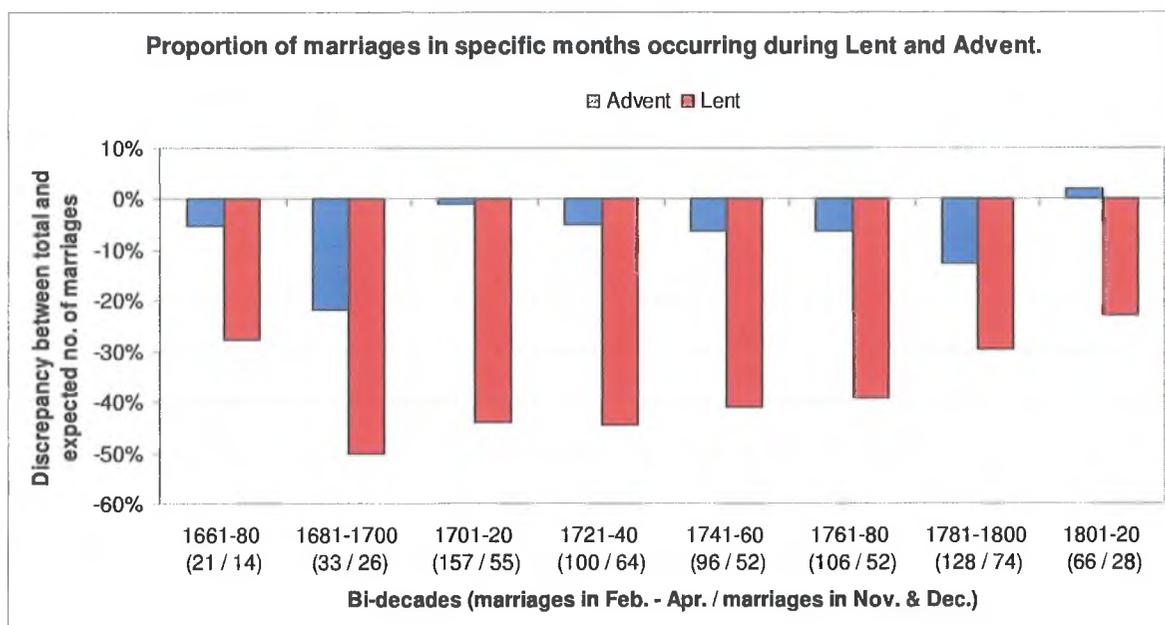


Figure 144 – The discrepancy between the total number of marriages recorded during February, March and April which occurred during Lent and the expected level and the discrepancy between the total number of marriages recorded during November and December which occurred during Advent and the expected level.

Note: Below 0 per cent indicates a deficiency. March and April contain a mean of about 89 days, while Lent spans 46 days, and so Lent comprises about 51.5 per cent of the total number of days during these three months. November and December contain 61 days, and Advent, of variable length, contains a mean of 25 days, and so, contains c. 41 per cent of the total number of days during those months.

The Lenten prohibition, on the other hand, proved more resolute, although as the eighteenth century progressed increasing proportions of marriages were recorded during that period (figure 144). In 1701-20 only 7.6 per cent of 157 marriages recorded in January through March occurred during Lent, whereas a century later that figure had increased to almost 30 per cent, and a steady increase in the proportions were observed during successive bi-decades, throughout the eighteenth century. The only anomalous figures occur during the latter half of the seventeenth century, but the datasets for this period are small.⁷⁵

Neither was there any considerable difference between the avoidance of Lent in urban and rural areas, although some slight, but significant, difference are evident. Because of the limited size of the marriage dataset examining seasonality for short

periods would compromise any conclusions, so it is safest to consider the rural and urban (Athy, Carlow and Naas) datasets in their entirety when considering seasonal trends. The seasonality indices for both urban and rural parishes are shown in figure 145.

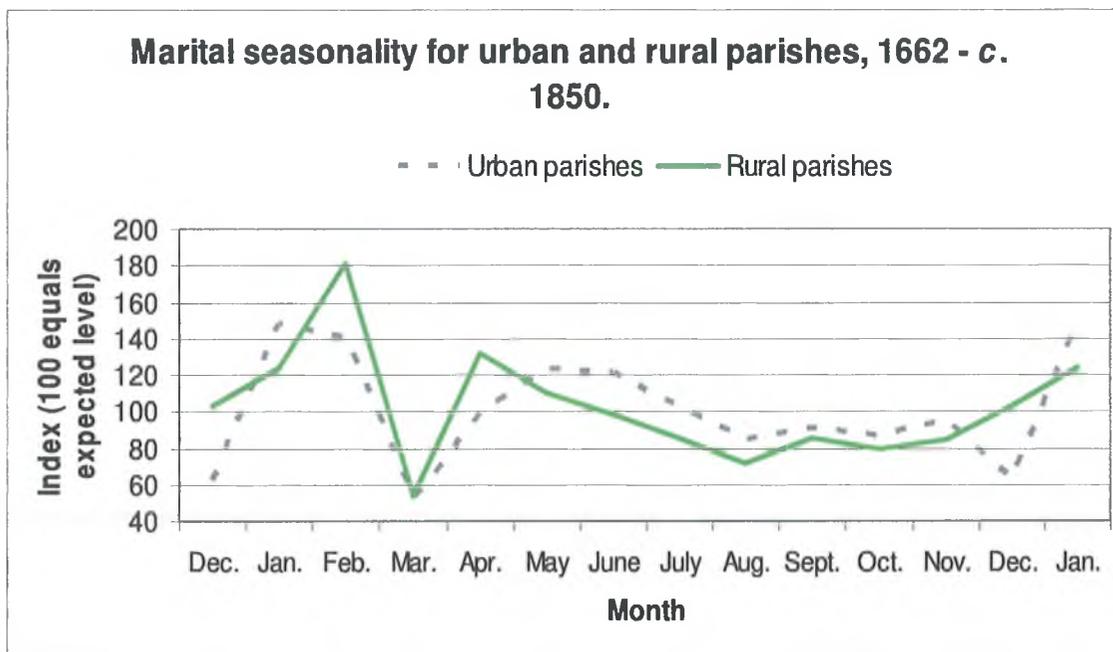


Figure 145 – Marital seasonality in Protestant urban and rural parishes, 1662-c. 1850 (2,041 rural and 614 urban marriages).

The most obvious thread linking urbanites and rural dwellers was their common reluctance to marry during March, as during that month the marriage index dipped to about 50 for both datasets. In rural areas, however, marriages recovered quickly from the March dip, but the recovery in the towns was slower. From June through November in the rural parishes the number of marriages occurring each month was less than would be proportionately expected, which is probably, in large measure, accounted for by the increasing demand for labour in rural areas during that critical period. Urban parishes, by contrast, recorded higher-than-expected levels of marriages in June and July, with the index not dipping below 100 until August, and remaining below the expected level for the remainder of the year. This delayed trend in the marital index in urban areas, reflecting similar patterns reported for England, is

again explained by a consideration of the exigencies of the labour-demand during the summer and autumn months.⁷⁶ As the demand for labour began to increase during the late summer, with the harvesting of potatoes and later the early grains, the initial demands could be met by rural labour. Later, during the autumn, when the main harvest had to be gathered and the grains transported to market or mill, the rural labour pool was insufficient to meet the heightened demand, and urban labour was then required to gather the harvest. Then, once the harvest had been gathered, rural labour demand dropped, but the urban economic cycle remained buoyant, because of the requirement to oversee the distribution of the harvest, through the market economies (chapter four).⁷⁷

Another area of contrast between urban and rural trends occurs during December. In the urban area, marriages, which ran below expected levels since August, rallied towards the expected level during November, only to fall back again dramatically in December. In rural areas, however, the marital index during December drifted back above 100, the first month since May that the expected level of marriages was exceeded. The different trend for November and December is more striking when one considers that December is the fifth most popular month for marriage in rural areas but in urban areas it was the second least popular month, with an index (sixty-three) only marginally above the March level.

Accounting for these varying trends is speculative. Since marriages had been depressed (below expected levels) since June in rural areas, but only since August in urban areas then there must have been a greater latent demand for marriage in rural parts, once the harvest had been dealt with. Thus, in the aftermath of the harvest – particularly if it had been bountiful – and as the demand for labour fell, then November and December would be an ideal time to organise nuptials among rural inhabitants.⁷⁸ It is also probable that labour-demand was influencing the marriage-index in urban areas, where a huge dip in the index during December was followed by the equally dramatic recovery during January, the most popular month. Since, as has been seen, the urban harvest-based economic cycle lagged behind the

rural one, then the December dip, followed by the January peak likely indicates a tendency to marry when the urban economic cycle tempered, after the harvest was disposed of. Thus the rally in marriages during November and December in rural areas and the corresponding rally in urban areas a month later were probably comparable manifestations of the impact of fluctuations in local economic cycles on the marriage level.

The typical seasonality of marriage rhythms was not even disrupted by economic difficulties or demographic crisis, as even during these years the general trends remained steadfast, albeit at lower numbers of marriages. Figure 146 shows the marital index for twenty-two crisis years⁷⁹ compared with the marital index for all years. Again, no October or November peak is evident in the data, although during the crisis-years dataset the November index increased above 100, and dropped significantly the following month, thus following the typical pattern that would be expected if the Advent prohibition was being observed. Unfortunately, however, the marriage dataset for the crisis years only contains 386 marriages, so even just one or two extra of fewer marriages per month can skew the findings. But as the statistics stand, the general trends evidenced for December during the years of most critical distress during the eighteenth century do tantalisingly suggest a tendency to avoid marriage at this period, and if this was the case then the underlying reason was more likely economic than ecclesiastical. If marriage was typically held over until after the harvest, then economic realities in the aftermath of a failed harvest would necessitate the further postponement of marriages until circumstances improved. In support of this, it was earlier observed that sexual restraint may have been practised in Advent during period of crisis, so it is not unreasonable to observe marriages also being postponed, suspended or discouraged during economic downturns.

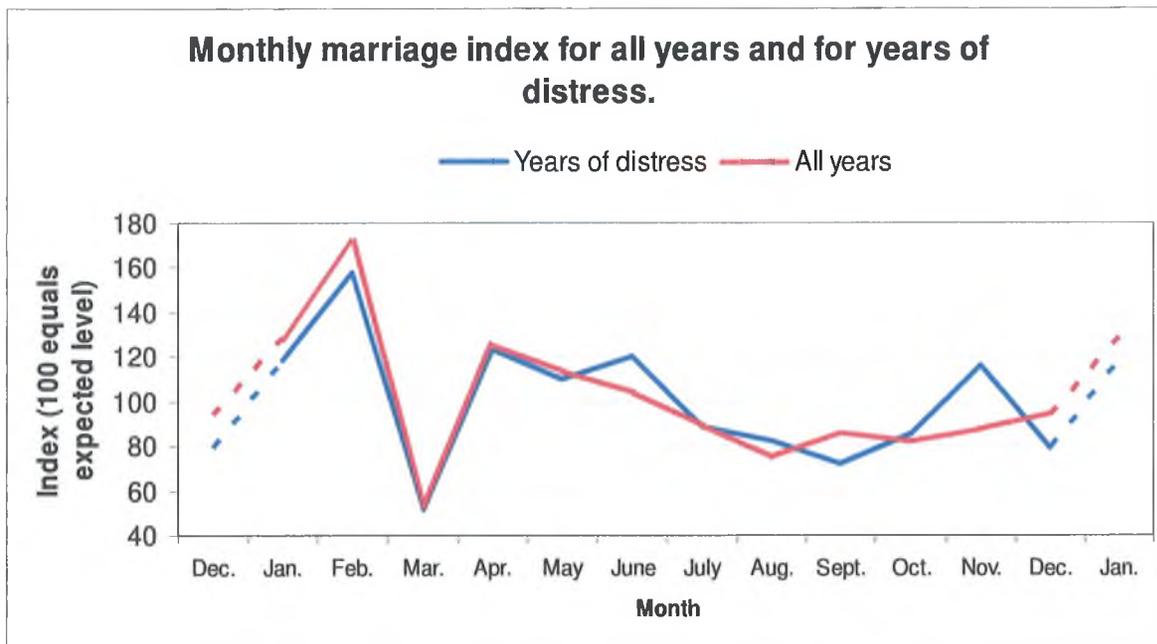


Figure 146 – Monthly marital index for all years, and for years characterised by economic difficulties or harvest failure.

The seasonal rhythms for Catholic marriage in Wicklow parish were substantially different to the trends evident for the Protestant community. Figure 147 shows the normalised monthly marriage distributions for the Catholic community, determined from 1,162 marriages occurring between 1748 and 1809, and these appear to be closer to the English trends outlined by Wrigley and Schofield, than were the equivalent Protestant indices. Like Wicklow’s Protestant communities, in the Catholics’ dataset a huge February peak for marriages, even more pronounced than the Protestant equivalent during the period 1650-99, was followed by a chasm in March, representing the avoidance of nuptials during Lent.⁸⁰ In total, 18.3 per cent of marriages were recorded during February, and almost a third of all marriages recorded occurred in either January or February, with March accounting for just 2.5 per cent of the total. January and February, squeezed between the two prohibited periods of Advent and Lent, was unquestionably the marrying time for Wicklow Catholics, facilitated by both economics and ecclesiastical rules.

Following the March chasm, the marriage index gradually increased during April and May – breaching the expected level in May – before falling back again during the summer months, when labour-demand was high. During August, one of the busiest months of the agricultural year, when the potatoes were harvested and pitted and the grains were reaching maturity, marriages were more than 30 per cent below expected levels. In September, October and November the index again rose above the expected level, mirroring trends evident in English and continental studies, and dropped again during Advent, the second prohibited period for Catholic marriages. It is notable, however, that the plateau which occurred during the autumn for Catholics, and which was conspicuously absent in the contemporary Protestant data, was on a vastly reduced scale to that exhibited in the English findings.⁸¹

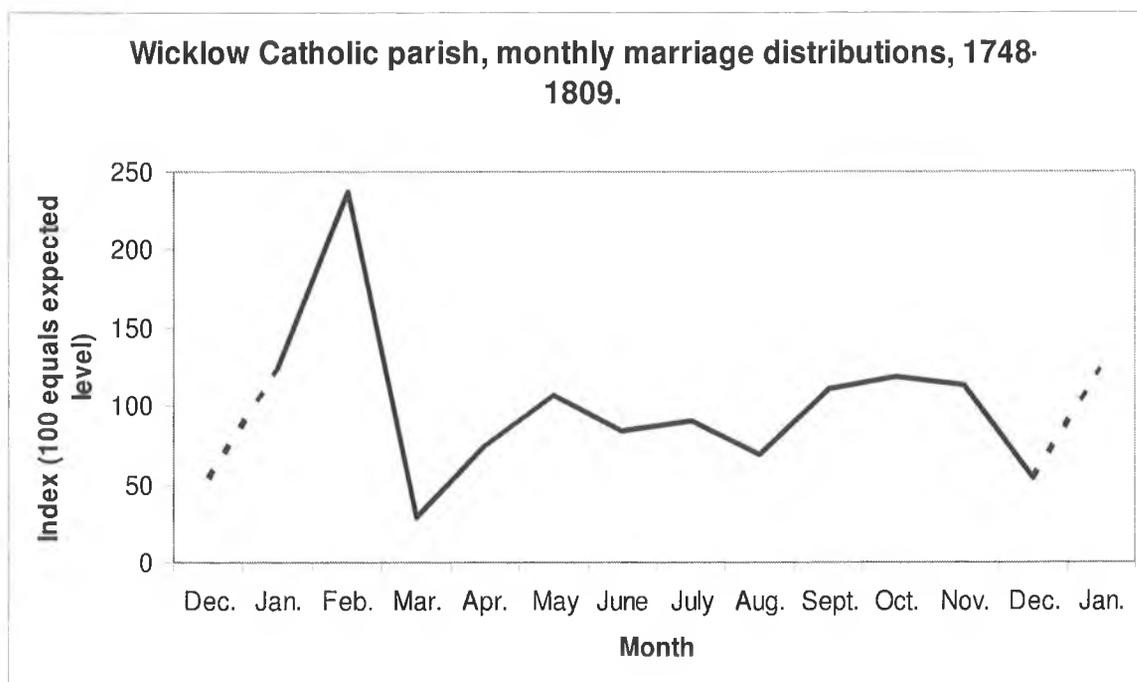


Figure 147 – Monthly marriage index for Wicklow Catholic parish, 1748-1809 (1,162 marriages).

This general trend in the Wicklow Catholic registers proved fairly steadfast, also, as is highlighted by figure 148. In this table marriages have been aggregated per month for three approximately fifteen-year periods between 1748 and 1809. It will be remembered that there is a gap in the registers between about 1782 and 1796, so all

the periods are not contiguous. Nonetheless, the characteristics of the marital seasonality within the union remained virtually unchanged during the course of six decades. The two prohibited periods for Catholic marriages, Lent and Advent, were strictly honoured, and at least double the expected number of marriages for February were recorded during all three periods. Clearly, the secularisation which was occurring within the Protestant community as the eighteenth century advanced was absent from contemporary Catholic ethics. During June, July and August the marital index was consistently below average and the late-autumn peak was evident in all three periods.

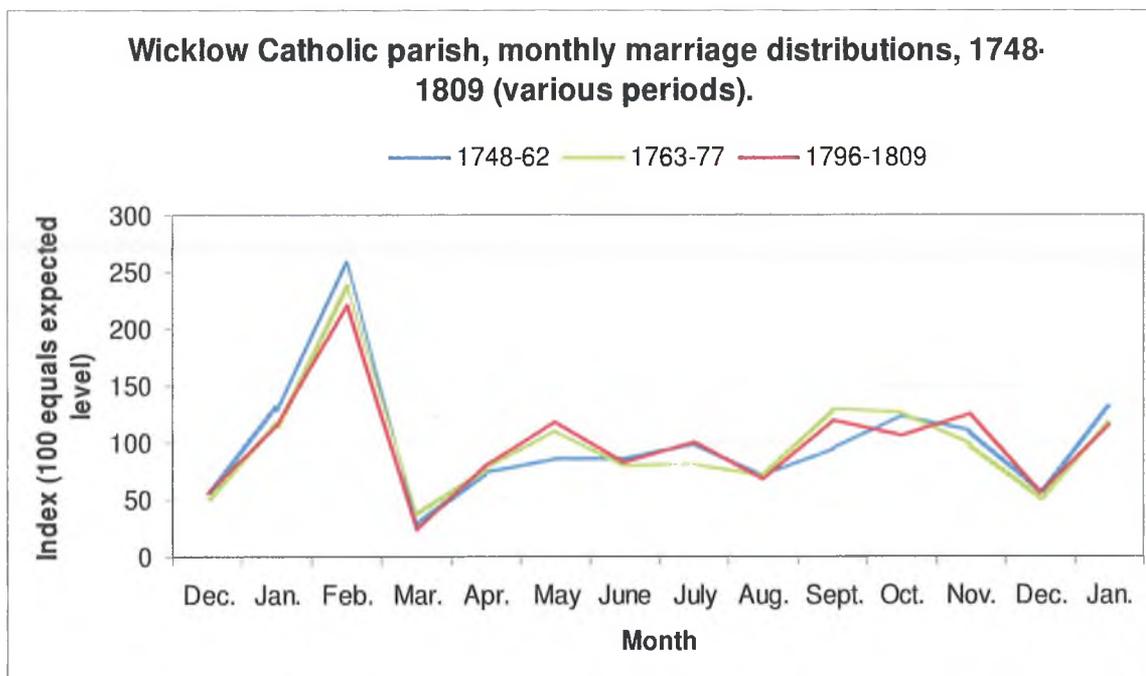


Figure 148 – Wicklow (Catholic) monthly marital indices for three 15-year periods between 1748 and 1809 (383, 319 and 400 marriages respectively).

Slight, but subtle, differences are also evident in the days of the week favoured by Catholics and Protestants for their nuptial celebrations, which may also be reflective of spiritual perceptions and economic circumstances. This issue was considered earlier in relation to baptisms, but marriage was a more important social event than baptism, usually attracting a large numbers of guests, all of whom had to forego at least a half a day's wage if the marriage was held on a working day. For

England, Roger Schofield has identified considerable fluctuations in the distribution of marriages during the week - Sunday marriage predominated during the sixteenth century, only to fall out of favour during the Interregnum, and to recover marginally after the Restoration, after which Sunday marriages accounted for almost one in six of the total, between the Restoration and the beginning of the 1780s.⁸² During the same time, however, Monday increased from about 18 per cent to a position of prominence, at almost 30 per cent, indicating that Saint Monday was no less venerated in England than in Ireland.⁸³

In Wicklow, both the Catholic and Protestant communities favoured Sunday as the marriage-day, although for both communities, and particularly for Protestants, Monday was also quite popular. The popularity of Sunday was most pronounced for Catholics, on which day a third of all marriages occurred, compared with just one in five Protestants' marriages. The ranking of the days was broadly similar for both communities too, the only difference occurring in the relative ranking of Thursdays and Saturdays. For both communities Friday was the least popular day for marriage, accounting for only 7 per cent of marriages (excluding events for which the marriage-day cannot be identified), roughly similar to the English proportion.⁸⁴ For Catholics, Friday was a day for fasting, so celebration on that day was likely to be a muted affair, if not actively discouraged by the church, but the reason for the unpopularity of Friday for Protestants is less obvious. Certainly, it is probable that popular traditions, predating the Reformation, concerning Friday marriages persisted among Protestants, although its longevity into the nineteenth century would be surprising. In the nineteenth century folklore and local custom in some areas operated to discourage Friday marriages, because Friday - 'hauling home' day - was the day when a bride was transferred to her new home, along with her possessions.⁸⁵

Aside from the relative strength of Sunday, the other principal discrepancies were for Thursday, when almost 15 per cent of Protestant marriages but just 10 per cent of Catholic marriages, were recorded and for Monday and Tuesday, when less significant differences occurred. Figure 149 shows the distribution of all marriages

among the days of the week for the Protestant and Catholic records. Since it is possible that changes in the popularity of the individual days may occur over time, and since the temporal range of the Protestant dataset is much greater than for the Catholic dataset, a reduced dataset, covering the same time span for which marriage data is available in the Catholic registers, was also established, to facilitate a direct comparison. While the differences in the daily timings between the two communities are lessened when the reduced Protestant dataset is considered,⁸⁶ nonetheless, the broad shapes of the distinctive community characteristics remain. For Protestants during the period 1748-80 and 1796-1809, for example, Sunday, while remaining the most popular day, still accounted for less than one fourth of total marriages.

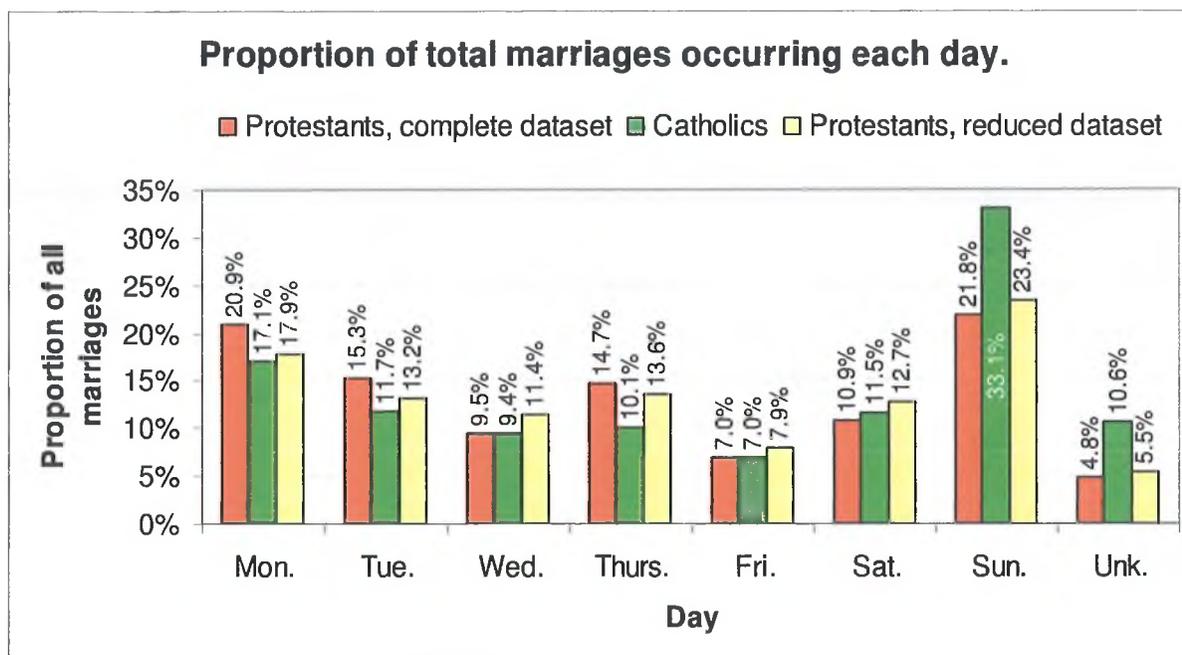


Figure 149 – Daily distribution of Catholic and Protestant marriages, including a reduced Protestant dataset containing just marriages for the 1748-80 and 1796-1809 (totals for the individual days exclude the unknown totals).

However, if all official holy days are considered in conjunction with Sundays (figure 150) then the figures for the two different communities assume a closer similarity. In these circumstances, almost half of all Catholic marriages occurred either on Sunday or on a state-approved holy day, as did almost four of every ten Protestant marriages. Monday remained the second most popular day for marriage in

both communities the ranking of the less popular days with the exception of Friday, all differ. Monday's popularity is unsurprising, as it provided an opportunity to extend the weekend celebrations, and mirrored the Saint Monday trends in England.⁸⁷ In total 53 per cent of all Protestant marriages and 56 per cent of all Catholic marriages occurred either on a Monday or a holy day, including Sunday, and only 6.2 per cent of Catholic and 6.1 per cent of Protestant marriages occurred on an ordinary Friday. There can be no clearer evidence that both communities were focussed on exploiting the labour-free status of the holy days in order to reduce the economic consequences of their celebrations.

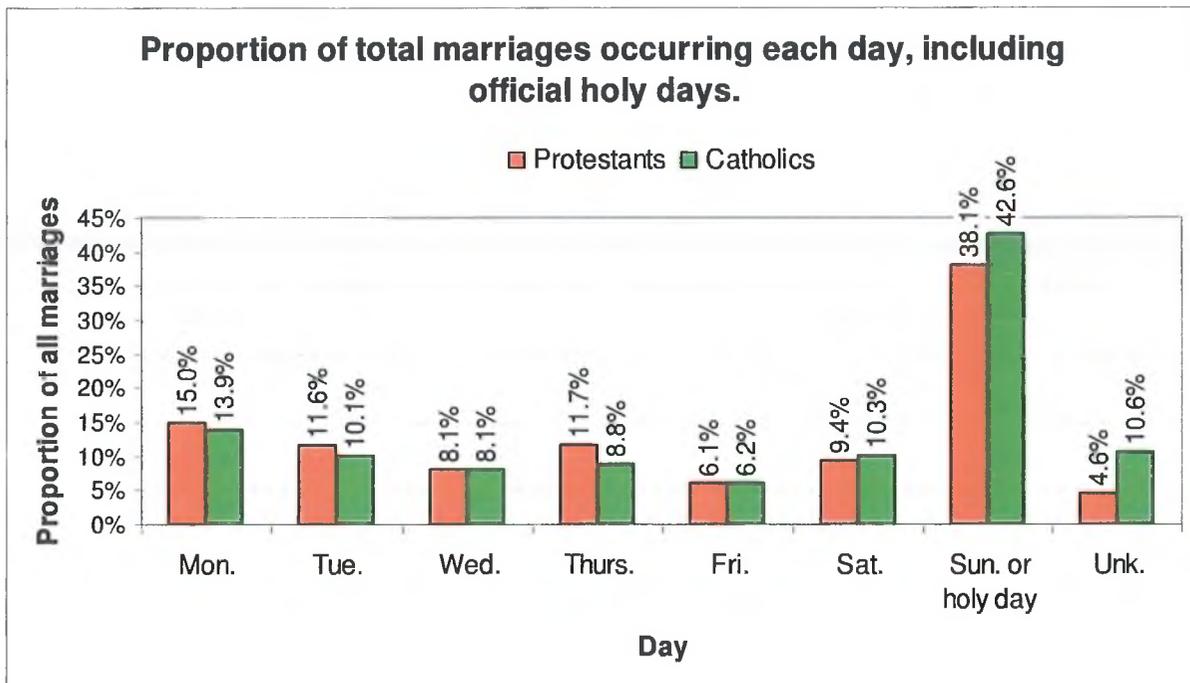


Figure 150 – All Catholic and Protestant marriages distributed per day, with official holy days combined with Sunday totals (totals for the individual days exclude the unknown totals).

For England, Roger Schofield has observed substantial changes in the relative popularity of the various days over time, but little fluctuation in the relative popularity of Wicklow marriage-days is evidenced, as can be seen from figures 151 and 152. For Protestants (figure 151), the popularity of Sundays and holy days remained omnipotent, between 1661 and 1820; even at the start of the nineteenth century these days still accounted for one third of all recorded marriages, although the proportion

had gradually declined from between 40 and 45 per cent for the period before 1760. Saturday, too, an unpopular day for Wicklow marriages at the outset of eighteenth century had squeezed into second place by its close, whereas Thursday, which had been the second most popular day during the latter part of the seventeenth century, gradually slipped in popularity during the succeeding hundred years. Friday, was the least popular day for marriage in all but one bi-decade between 1681 and 1800.

Another contrast with English trends concerned changes in the relative popularity of Mondays. During the eighteenth century Schofield has observed a dramatic increase in the popularity of Monday because of the ‘appearance of proto-industry, or of an urban working pattern’, and by 1780 Saint Monday was accounting for almost one in three of all marriages.⁸⁸ In the absence of substantial industrialisation within Wicklow, however, it is not surprising to observe the absence of a similar fashion among Wicklow’s Protestants, although Monday was perennially popular, after Sunday.

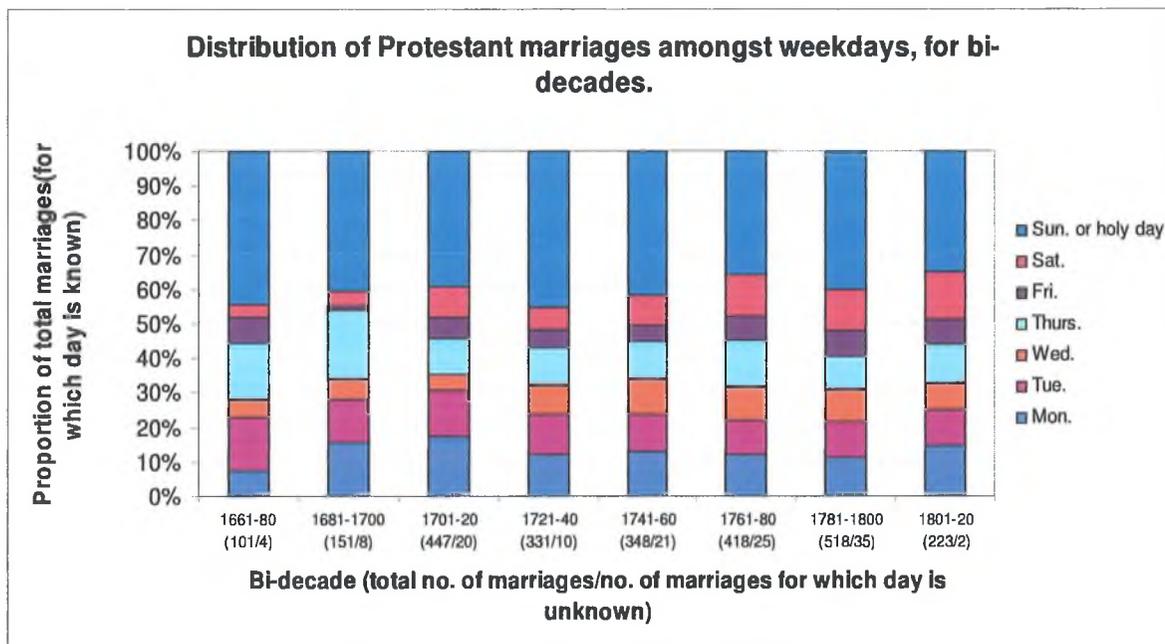


Figure 151 – Distribution of Protestant marriages among the days of the week for bi-decades, 1661 – 1840.

Note: Sundays and official holy days have been combined, and the unknown days have been excluded from the distributions.

For Catholics (figure 152), similar temporal trends are evident. Sundays and holy days, even more dominant among the Catholic community, accounted for about half of all marriages during all the periods examined, and Saint Monday, consistently in second place, accounted for between 12 and 17 per cent of the total events. No other significant trends are evident, although Friday was equally unpopular for Catholics. Why get married, if you couldn't partake in celebrations, eat meat or toast the health and good fortune of the newly weds?

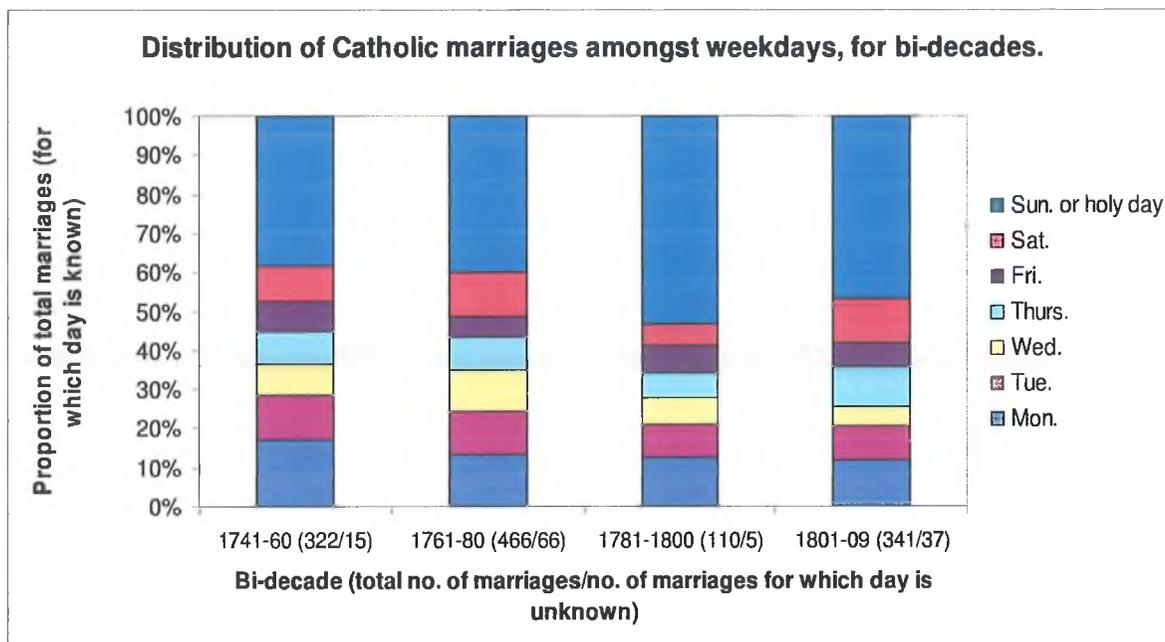


Figure 152 – Distribution of Catholic marriages amongst weekdays, by bi-decade.

Note: Sundays and official holy days have been combined, and the unknown days have been excluded from the distributions.

It is clear, therefore, that a number of constraints were operating to influence the choice of marriage day, and it was often the case that the chosen day represented the outcome of the trade-offs between considerations of church law, local traditions and economic conventions. Church law and local customs established the boundaries, sometimes rigid, other times mutable, for both communities. For Catholics, Church rules prohibited marriage during Advent and Lent and made Friday marriages undesirable, while for Protestants, in the absence of church regulation, popular

customs operated to impose similar temporal rhythms. Within these bounds, the local social and economic context, principally in terms of the ripening of grains and potatoes or the dropping of calves and lambs, applied further, practical, constraints. It is, therefore, unsurprising to see that marriages were timed so as to provide the most advantageous economic outcome for all, within the limits applied by the imposing socio-economic and legal contexts.

Conclusion

In chapter four it was seen that agricultural seasonality underpinned the structure of local economies, and in this chapter it has been shown that the seasonality of local economies underpinned local demographics. In particular, a consideration of the seasonality and timing of baptisms, marriages and burials has provided a unique view on the preferences of early-modern local communities. Specifically, it has been possible to examine Wicklow's early-modern demographic history within the relevant ecclesiastical, social and economic contexts. Clear differences have emerged between the choices favoured by Catholics and by Protestants, particularly in terms of the timing of baptisms and marriages. Underlying these differences, however, were broad similarities, delineated either by church-law or by tradition, custom and folklore, which originated in ancient times from the same church law.

Within this traditional context lay the socio-economic context of the great agricultural cycles, which imposed further practical limits on the free choice of local communities. So pervasive were agricultural cycles that they even influenced the choices made by urban dwellers in terms of the timing of their baptisms and marriages. People married and had children when they could afford to do so, and in times of crisis-mortality or economic strain they postponed marriage and childbirth. During periods of plenty they celebrated, and during times of distress they atoned. Thus, Ann Kussmaul's stark observation that 'people married when they were not busy with work' does not tell the full story for early modern Wicklow. Rather does it seem to have been the case that people married, and even planned their families, when

they were not busy with work, when they could afford to do so, and when they were permitted to do so by ecclesiastical law, popular customs and ancient traditions.

References, chapter 5

- ¹ Richard Burn, *Ecclesiastical law* (6th ed., 4 vols, London, 1797), ii, p. 468 (hereinafter cited as Burn, *Ecclesiastical law*)
- ² Ann Kussmaul, *A general view of the rural economy of England, 1538-1840* (Cambridge, 1990) (hereinafter cited as Kussmaul, *General view of rural ec. of England*).
- ³ Perhaps the availability of the minister was greater on a Sunday, which may account for it. It is possible, too, that this coincided
- ⁴ Roger Schofield, “‘Monday’s child is fair of face’”: favoured days of baptism, marriage and burial in pre-industrial England’ in *Continuity and change*, xx, no. 1 (2005), pp 93-109 (hereinafter cited as Schofield, ‘Monday’s child’).
- ⁵ These are Aghowle, Athy, Blessington, Bray, Carlow, Castlemacadam, Delgany, Donaghmore, Dunlavin, Monkstown, Newcastle, Powerscourt, Rathdrum, Tullow and Wicklow.
- ⁶ Registers in local custody in Wicklow parish.
- ⁷ In fact, it is often not the deficiencies in the registers, but the small number of marriages occurring within parishes, even during years when the recording of marriages appears to be thorough, which can present the greatest challenges for the demographer.
- ⁸ Kussmaul, *General view of rural ec. of England*.
- ⁹ Kussmaul, *General view of rural ec. of England*, p. 3.
- ¹⁰ Kussmaul, *General view of rural ec. of England*, pp 3-4.
- ¹¹ Bray (ed.), *Anglican canons*, p. 510, canon 50; William Lyndewode, *Provinciales*, liber iv (Copy in R.C.B. Library, call. no. SR. 13).
- ¹² Lyndewode, *Provinciales*, cited in Burn, *Ecclesiastical law*, ii, p. 467.
- ¹³ The holy days were Circumcision (1 January), Epiphany (6 January), Christmas (25 December), St Stephen’s (26 December), St John the Evangelist (27 December) and The Holy Innocents (28 December). Depending on the commencement date of Advent in a particular year, St Andrew’s day may also have been included in this prohibited period.
- ¹⁴ Lyndewode, *Provinciales*, cited in Burn, *Ecclesiastical law*, ii, p. 467.
- ¹⁵ W. E. Tate, *The parish chest, a study of the records of parochial administration in England* (2nd ed., Cambridge, 1960), p. 62 (hereinafter cited as Tate, *Parish chest*).
- ¹⁶ It appears probable that, as is suggested by Leslie Bradley’s analysis of a small number of parishes in England, the duration of both of these prohibited periods were shortened at both ends to encompass just Lent and Advent, rather than the prolonged periods that are outlined in the text and in table 55 (Leslie Bradley, ‘An enquiry into seasonality in baptisms, marriage and burials; part one: introduction, methodology and marriages’ in *Local Population Studies*, no. 4 (Spring 1970), pp 34, 37 (hereinafter cited as Bradley, ‘Marriage seasonality’).
- ¹⁷ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 299.
- ¹⁸ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 300.
- ¹⁹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 300.
- ²⁰ H.J. Schroeder, *Canons and decrees of the Council of Trent* (Rockford, 1978), p. 189.
- ²¹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, 303.
- ²² Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 286-305.
- ²³ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 287-8.
- ²⁴ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 288, figure 8.1.
- ²⁵ Wrigley and Schofield are careful to point out that this is not accounted for by the high rates of infant mortality at that time (Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 295).
- ²⁶ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 293, figure 8.1, 294.
- ²⁷ Studies have shown that photoperiods can influence conception and reproduction; see, for instance, David Lam and Jeffrey Miron, ‘The effects of temperature of human fertility’ in *Demography*, xxxiii, no. 3 (1996), pp 291-305. Also, see Geraldine Spencer, ‘Fertility trends in Australia’ in *Demography*, viii, no. 2 (1971), pp 247-59; Ronald Lee, ‘Population dynamics of humans and other animals’ in *Demography*, xxiv, 4 (1987), pp 443-65.

- ²⁸ V Lummaa, R. Lemmetyinen, E. Haukioja and M. Pikkola, 'Seasonality of births in *Homo sapiens* in pre-industrial Finland: maximisation of offspring survivorship?' in *Jn. of evolutionary biology*, xi (1998), p. 153. In fact, it was autumn births that had the highest probability of survival, but this coincided with the period when the number of births typically dipped below expected levels (*ibid.*, p. 151).
- ²⁹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 292.
- ³⁰ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 287 (table 8.1), 288 (figure 8.1).
- ³¹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 292.
- ³² Wrigley, 'Family limitation in pre-industrial England', pp 104-5.
- ³³ This is not to suggest that the harvest was of little seasonal import in the western regions – arable farming remained an important part of the mix in this region, but the importance of pasturage, and the maintenance of traditional agricultural practices in some areas (Fraser, *General view of Wicklow*, p. 92), meant that the social impact of the harvest period was less important to the west of the mountains. Additionally, legislative initiatives, such as the removal of tithes on pasturage in 1735, operated to further discourage tillage in the early years of the eighteenth century, which would have further reduced arable acreage in the marginal western districts, leading to a steady reduction in the importance of the harvest there.
- ³⁴ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 288, figure 8.1.
- ³⁵ Jonathan Swift jocosely commented on Catholic births in March in Swift, *Modest proposal*, p. 7.
- ³⁶ Patrick Corish, *The Catholic community in the seventeenth and eighteenth centuries* (Dublin, 1981), p. 15 (hereinafter cited as Corish, *Catholic community*).
- ³⁷ However, no Irish study has heretofore been undertaken on this scale.
- ³⁸ Schofield, 'Monday's child', pp 100-102, esp. figure 4.
- ³⁹ Bullingbrooke, *Ecclesiastical law*, i, p. 447.
- ⁴⁰ In exceptional circumstances, when the life of an un-baptised child was in immediate danger, private baptism was permitted (Bullingbrooke, *Ecclesiastical law*, i, pp 446 ('since no one ought to die without receiving of this sacrament'), 454). Bray (ed.), *Anglican canons*, pp 494-5.
- ⁴¹ Schofield, 'Monday's child', p. 101, figure 4.
- ⁴² Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 96.
- ⁴³ Schofield, 'Monday's child', p. 102.
- ⁴⁴ Although the rural dataset includes some large towns such as Bray and Wicklow, these towns were, nonetheless, proportionately small within their respective parochial unions, compared with Athy, Carlow and Naas.
- ⁴⁵ As will be seen when burial seasonality is considered, in large urban areas the months of highest mortality in urban and rural areas differed – poor sanitation and squalid living conditions in urban areas meant that the threat of infectious diseases was greatest during the warmest months of the year. Thus, based on the previous analysis (particularly from figure 128), it could reasonably be expected that Sunday baptisms would have dipped during these months, as there would have been a tendency for the birth-baptism interval to be reduced during the season of greatest mortality. It must also be recognised, however, that the limited size of the urban dataset could also be impacting on observed trends.
- ⁴⁶ Schofield, 'Monday's child', p. 102.
- ⁴⁷ An Act declaring which days in the year shall be observed as holy-days (7 William III, c. 14 (*Stat. Ire.*, iii, pp 286-8). Determining the holy days for the Catholic Church is less clear cut, because each country had its own specific feast days. Also, holy days honouring local saints may have been important, too. The following have been considered Catholic holy days which had relevance for Wicklow – New Years Day, Epiphany, St Brigid's, St Patrick's, Good Friday (not specified), Easter Sunday, Easter Monday, Annunciation, Ascension, Pentecost (Whit Sunday), Pentecost (Whit) Monday, Corpus Christi, St Kevin's, Sts Peter and Paul, Assumption, All Saints, All Souls (not specified), Immaculate Conception and Christmas (list based on information in Charles Herbermann, Edward Pace, Condé Pallen, Thomas Shahan and John Wynne (ed.), *The Catholic encyclopedia: an international work of reference on the constitution, doctrine, discipline, and history of the Catholic Church* (15 vols, New York, c. 1907-12), vi, p. 22).
- ⁴⁸ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 288 (figure 8.1), 293 (figure 8.2).

⁴⁹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 293-5.

⁵⁰ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 295.

⁵¹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 296-8 (see figure 8.4 (p. 297) in particular).

⁵² Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, pp 295 for London; Monahan, *Year of sorrows*, p. 126 for Lyon.

⁵³ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 295.

⁵⁴ The following rankings emerge from Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 294

Period	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1700-49	9	10	12	12	8	3	1	2	5	6	5	7
1750-99	10	10	12	12	8	6	3	1	3	4	6	7

⁵⁵ Plague or virulent disease could, of course have impacted on the timing of death in the short term (see, for example, McCorry, *Parish registers*, p. 138).

⁵⁶ Dickson, *Arctic Ireland*, p. 45.

⁵⁷ Note, however, that the cause of death is only sporadically recorded in the Blessington registers, so only five entries between 1739 and May 1741 have the cause of death recorded.

⁵⁸ Dickson, *Arctic Ireland*, p. 46.

⁵⁹ Berry and Schofield, 'Age at baptism', p. 453, note 3.

⁶⁰ Carlow parish registers, books 1 and 2 (R.C.B. Lib., MS P. 317.1.1, ff 58-64; MS P. 317.1.2, pp 1-34).

⁶¹ Schofield, 'Monday's child', p. 100.

⁶² Schofield, 'Monday's child', pp 93, 102.

⁶³ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 299 (figure 8.3).

⁶⁴ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 300 (table 8.5).

⁶⁵ The Rogationtide prohibited period appears to have fallen out of use earlier than did the Advent prohibition, as there is no evidence for it in Wrigley and Schofield's statistics. The Rogationtide prohibition varied from between 26 April to 16 May and 30 May to 20 June, depending on the date of Easter (C. R. Cheney, *Handbook of dates* for students of English history (1977 repr. of 1976 ed., Gateshead, 1976), pp 84-155 (hereinafter cited as Cheney, *Handbook of dates*)).

⁶⁶ As with the national situation, however, the proportion of annual marriages occurring during March generally increased gradually over time (Bradley, 'Marriage seasonality', p. 34; W. J. Edwards, 'Marriage seasonality, 1761-1801: an assessment of patterns in seventeen Shropshire parishes' in *Local Population Studies*, no. 19 (Autumn, 1977), pp 24-5 (note the enhanced popularity of March as a marital month in urban Wem, compared with the smaller, predominantly rural parishes)).

⁶⁷ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 303.

⁶⁸ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 303, and note 36.

⁶⁹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 303; Philip Ogden, 'Patterns of marriage seasonality in rural France' in *Local Population Studies*, x (Spring 1973), pp 53-64.

⁷⁰ David Cressy, *Birth, marriage, and death, ritual, religion and the life-cycle in Tudor and Stuart England* (Oxford, 1997), p. 301 (hereinafter cited as Cressy, *Birth, marriage and death in Tudor and Stuart England*).

⁷¹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 300, table 8.5.

⁷² Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 300, table 8.5.

⁷³ It should also be remembered that a March marriage need not necessarily occur during Lent (Cheney, *Handbook of dates*, pp 84-102, 136-54).

⁷⁴ The earliest date for the commencement of Advent is 27 November (duration of Advent, 28 days), and the latest date is 3 December (22 days) (Cheney, *Handbook of dates*, pp 83-155).

⁷⁵ Although it is not inconceivable that latent traces of the discouragement of Lenten prohibitions during the Cromwellian period were still impacting on the timing of marriage during Lent at that time.

⁷⁶ For English urban trends see Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 304, table 8.6.

⁷⁷ Francis McCorry reports similar links between economics and marriage in Armagh (McCorry, *Parish registers*, pp 67, 70).

⁷⁸ In fact, the only reason why December should not be reasonably popular for marriage was if the Advent prohibition was being maintained, which, as has been seen, it clearly was not.

⁷⁹ These crisis years are the same ones which were earlier considered for baptisms (1708—9, 1725-9, 1739-41, 1745-7, 1755-7, 1763, 1766-7, 1773 and 1782-3).

⁸⁰ McCorry, *Parish registers*, p. 69.

⁸¹ Wrigley and Schofield, *Pop. hist. of England, 1541-1871*, p. 299, figure 8.3.

⁸² Schofield, 'Monday's child', pp 93, 103-4.

⁸³ Schofield, 'Monday's child', pp 104-6; S. J. Connolly, 'Religion, work-discipline and economic attitudes: the case of Ireland' in *Ireland and Scotland, 1600-1850* (Edinburgh, 1983), pp 240-1 (hereinafter cited as Connolly, 'Religion, work-discipline and ec. attitudes'). In 1768, 'W. W.' wrote to the *Freeman's Journal*, complaining that 'the celebration of the Rites and Ceremonies of this Saint, is not always confined to the Day, or even to two or three Days, - they often ingross the whole Week. In this interval, all the earnings of the preceding week, which unluckily are paid them all together every Saturday night, are lavisher away' (*Freeman's Journal*, 5-8 November 1768, p. 80a).

⁸⁴ Schofield, 'Monday's child', p. 103, fig. 4.

⁸⁵ Rosemary Fallon, *A County Roscommon wedding, 1892* (Dublin, 2004), pp 40-1.

⁸⁶ Correlations of 0.95, compared with 0.82 for the entire Protestant dataset.

⁸⁷ Connolly, 'Religion, work-discipline and ec. attitudes', pp 240-1.

⁸⁸ Schofield, 'Monday's child', p. 104.

