

Shrink smarter? Planning for spatial selectivity in population growth in Ireland

Gavin Daly & Rob Kitchin

National Institute for Regional and Spatial Analysis, NUI Maynooth

Abstract

One of the most fundamental but overlooked questions in shaping a national territorial-development strategy is how to manage spatial development in regions that have not been selected for new growth. The Irish *National Spatial Strategy* (NSS) is ostensibly a policy exercise in spatial selectivity where clear choices have been made as to where to target future population growth. The failure of policy to implement the NSS to date can be largely attributed to the difficult political process in practice of identifying ‘winners’ and ‘losers’. In order to achieve the public consensus required for effective implementation, a revised strategy will need to pay greater attention to the residual regions. This will require a greater societal acceptance that population growth cannot occur everywhere, and that population decline and stagnation may become the normal pathway for some regions. This paper explores planning governance models of how to manage decline, drawing on the emerging international research agenda of ‘shrinkage planning’ and ‘degrowth’, and how this might be applied in the Irish context. In so doing, the paper provides policymakers with the genesis of a new conceptual toolbox and opens up new research questions as to how to proactively design and accommodate depopulation.

Keywords: Shrinkage, depopulation, smart decline, spatial selectivity

Introduction

Following the Celtic tiger period, in which managing rapid population and urban development was the foremost spatial planning challenge in Ireland, planning practitioners and policymakers are today confronted with a very different reality. Economic recession and the associated collapse of the banking and property sectors have resulted in a

dramatic slowdown in development activity and a new wave of emigration and depopulation in many areas, as well as widespread disinvestment. Sustained record inward migration has been replaced by net outward migration (Central Statistics Office, 2011) and a massively reduced number of planning applications for new development (Central Statistics Office, 2012a). These new realities are particularly acute in peripheral rural regions remote from main urban centres, largely as a result of the collapse of the construction sector and scarcity of alternative opportunities for new employment (Western Development Commission, 2009). At the same time, the overextended nature of the Irish property bubble and subsequent precipitous crash have led to considerable legacy problems in terms of a weak housing market and a very significant overhang of vacant developments (both housing and commercial properties), together with an enormous oversupply of zoned development land (Advisory Group on Unfinished Housing Developments, 2011; Kitchin et al., 2010).

A persistent criticism of the *National Spatial Strategy* (NSS) (Government of Ireland, 2002) since its inception in 2002 has been the lack of government commitment to implementation, together with the failure to acknowledge and pursue the level of spatial selectivity required to steer the distribution of new development in the wider national interest (Breathnach, 2010; Kitchin et al., 2010; Walsh, 2012). Patterns of physical development have diverged significantly from the strategy, with a diffusion of new developments in suburban, peri-urban and rural locations resulting in unsustainable travel patterns. New development was very often allowed to outrun the provision of essential social and physical infrastructure, resulting in significant deficits and a legacy of locked-in, high service-provision costs (Walsh & Allin, 2012). Moreover, the pro-growth and permissive nature of the Irish planning system throughout the Celtic tiger period assisted appreciably in inflating the unsustainable Irish property bubble by failing to act as an effective counterbalance to speculative 'developer-led' pressure (Kitchin et al., 2012).

Recent legislative and institutional changes have been deliberately designed to reverse the previous *laissez-faire* approach by central government to strategic spatial planning and to reaffirm its commitment to NSS policy. In the tightened fiscal environment post Celtic tiger, the 'refreshed' NSS is seen as an instrument to efficiently integrate sectoral dimensions of public policy delivery (see

Department of the Environment, Heritage and Local Government, 2010). The Planning & Development (Amendment) Act, 2010, has introduced a much-strengthened, 'plan-led' and coordinative system to compel greater conformance between spatial plans at national, regional and local scales. This new dispensation explicitly acknowledges that national development policy cannot be aspatial and that future population growth cannot occur everywhere. The new 'core strategy' requirement for each local authority development plan assigns prescriptive population growth targets to individual urban centres in accordance with their position in the national settlement hierarchy.

Drawing on the burgeoning EU urban and territorial cohesion agendas (Davoudi & Wishardt, 2005; Faludi, 2006), the much-strengthened NSS policy-implementation framework strongly favours the concentration of new population growth in a polycentric network of designated 'gateways', 'hubs' and other larger urban centres. Cities, in particular, are seen as 'growth poles' and crucial in driving national and regional competitiveness and economic growth. Prioritising investment in cities as a means to promote agglomerations of economic scale and a critical mass of population is now being proactively pursued as the central plank of NSS policy. This policy approach is considered to have greatest potential impact in terms of supporting the productive sector together with delivering 'balanced development' across the state with positive spill-over effects for surrounding regions (see Department of the Environment, Heritage and Local Government, 2010; Forfás, 2009).

Relatively little attention, however, is being given to regions that have not been identified for significant population growth and how they may evolve in the future. While the Greater Dublin Area and other larger urban centres may be likely to experience positive population growth in the short-to-medium-term future (Walsh & Allin, 2012), as a result of exogenous global factors, in other regions demographic decline is likely to become the normal pathway, with sustained low growth, lack of growth or negative growth. These scenarios are generally at odds with local socio-political imperatives, resulting in divisive public debate, perceptions of urban bias and a dualism of 'winners' and 'losers'. These perceptions are particularly relevant in the context of NSS policy given that spatial planning is very much a political activity and the regions, particularly rural regions, are large and politically important constituencies in mainstream political

discourse (Murray, 2004; Scott, 2006). These declining regions, which are often simultaneously burdened with a legacy of development oversupply and characterised by a weak economy, are likely to require increased levels of social transfers, and the communities directly affected are likely to experience significant difficulties (Western Development Commission, 2009). Regional demographic decline therefore represents a key national development challenge, and new knowledge and policy prescriptions that are responsive to the demographic realities of residual regions need to be developed. Developing such strategies presents a fundamental challenge to established planning practices and institutions, which have heretofore been adapted solely to deliver on normative cultural biases for future growth trajectories and designed to function under the premises of 'growth allocation'.

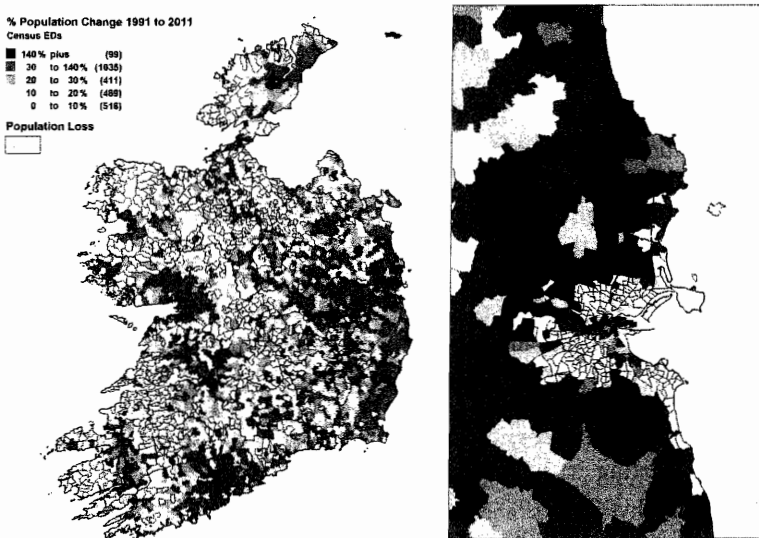
Some pointers for potential interventions exist from emergent international research and case studies that have experimented with various methods for managing depopulation under the umbrella of 'smart decline', 'planned shrinkage' or 'creative shrinkage' (Lindsey, 2007). 'Shrinkage' discourse, which has been underway in Germany and the US for much of the past decade, may open up potential avenues for the articulation of realistic alternative planning strategies for coping with the outcomes associated with depopulation (Pallagst & Wiechmann, 2012). However, an active discussion of these research concepts in academic, political and public debate in Ireland is absent. Such a debate should assist in gradually moving beyond the contentious 'zero-sum' public discourse of 'winners' and 'losers', which to date has hampered NSS implementation, and support the implementation of spatially differentiated territorial-development policies.

Demographic change in Ireland – Prospects and plans

Historically, acute depopulation and out-migration are not unfamiliar in Ireland. However, in recent decades a sustained period of economic growth facilitated strong population growth and inward migration. Indeed the population of Ireland has increased by more than one million persons (30.1 per cent) over the past twenty years (Central Statistics Office, 2012b; see Figure 1). Despite the severe economic downturn since 2008, Census 2011 results show that Ireland's population continues to grow, increasing by 348,000 persons since

2006, mostly driven by immigration in 2006 and 2007 and a very high birth rate.¹ However, this growth has slowed markedly, with net population growth in 2010 and 2011 reported as being 11,400 and 13,600, respectively (Central Statistics Office, 2011).

Figure 1: Population change 1991–2011 in Ireland and Dublin



Source: All-Island Research Observatory.

Further, this national picture masks strong spatial unevenness in demographic trends. In parallel with the growing share of high-technology and service sectors in national economic output, trends towards urbanisation and suburbanisation have become a consistent feature of Irish demographic change over the past half-century. In total, 62 per cent of the national population now live in urban areas, an increase of 738,898 (26 per cent) since 1996 (Central Statistics Office, 2012b), with the Greater Dublin Area now accounting for a 40 per cent share of total population. As a consequence, even throughout a sustained period of record national population growth, depopulation and out-migration have persisted, particularly in peripheral rural regions remote from large urban centres. In many instances these

¹ Ireland's buoyant population performance and high fertility rate are distinctive in the European context, and Ireland is one of the few remaining developed economies to continue to have population growth of this scale.

declining trends have only been tempered by market and societal preferences for urban-generated and commuter-driven low-density housing development in the wider rural hinterlands of main towns and cities (Department of the Environment, Heritage and Local Government, 2010). At the same time, depopulation has also been a significant feature in the core of large urban settlements, including Dublin, Cork and Limerick, reflecting broader societal trends towards suburbanisation and the failure of national policy to limit suburban sprawl (see Figure 1; Department of the Environment, Heritage and Local Government, 2010; Williams et al., 2012).

A notable example of a region that has experienced slow-leak depopulation for over a century is the historically disadvantaged, rural and peripheral west and north-western region of Ireland. While the overall population of this region grew over the past decade in line with national trends, the region's share of national population decreased steadily from 30.7 per cent in 1841 to 17.9 per cent in 2011 (Western Development Commission, 2012). Even within this region, population growth has been spatially uneven, with depopulating communities co-existing alongside growing communities. Analysis of Census 2011 by the Western Development Commission (2012) shows that the impact of the economic recession on demographic and economic trends is already starting to become apparent. A high proportion of elderly people, high dependency ratio, higher proportion of the population at risk of poverty, declining male share of the population, shortage of skilled workers and high residential vacancy rates are all characteristic features of declining regions.

Future projections expect the population of Ireland to continue to grow, though this growth will be spatially selective. Current national and regional planning policy is predicated on Ireland's population growing from 4.5 million in 2011 to 5.3 million in 2022 – a target net increase of 790,000 (Department of the Environment, Heritage and Local Government, 2009). Targets are different to forecasts in that they take into account not only population projections but also the potential impact of planning policies such as the NSS (Williams et al., 2012). These targets prescribe that a minimum of 392,000 of the targeted population growth must be directed to the nine gateway cities in order to ensure that these settlements deliver the critical mass of population envisioned by NSS policy. The remaining growth must be prioritised in hubs (45,600) and thereafter sequentially in other urban settlements in accordance with the settlement hierarchy. Almost half of the targeted population growth for the gateways in the period up to

2022 is assigned to the Dublin Metropolitan Area (Department of the Environment, Heritage and Local Government, 2010; see Table 1).

Table 1: Prescribed population targets for gateways and hubs, 2010–2022

<i>Gateways</i>		<i>Hubs</i>	
Letterkenny	+5,400	Cavan	+2,800
Sligo	+4,500	Monaghan	+1,700
Dundalk	+9,000	Ennis	+7,000
Dublin metro	+199,500	Wexford	+3,400
Midland	+30,200	Kilkenny	+4,200
Limerick–Shannon	+28,500	Mallow	+9,600
Waterford	+10,000	Tralee–Killarney	+9,700
Cork metro	+84,900	Tuam	+1,900
Galway	+20,300	Ballina–Castlebar	+5,300
Total Gateways	+392,300	Total Hubs	+45,600
Gateways and hubs total			+437,900 (55%)
Remainder of the state			+353,400 (45%)

Source: Department of the Environment, Heritage and Local Government (2009).

The planned concentration of the majority of targeted population growth in just eighteen of the state's cities and towns will have significant impacts for growth potential elsewhere. These new prescriptive targets for strategic settlement planning are already resulting in many local planning authorities undertaking significant rezoning and downzoning of development land (see Department of the Environment, Community and Local Government, 2011) and planning for low or no population and housing growth in smaller urban settlements. The current *Sligo County Development Plan*, for example, includes a moratorium on all new multi-unit housing developments in a number of settlements over the lifetime of the plan to 2017, noting: 'In an economic climate which seems to encourage migration out of the County, it is improbable that substantial population growth will occur in the short term and help decrease the number of vacant houses. It is likely that the high rates of vacancy will persist for a longer period, beyond the lifetime of this Plan' (Sligo County Council, 2011)

Current national population projections and targets, however, date from 2008, when the full extent and duration of the present economic recession were unknown. They are also predicated on a continuation

of buoyant inward migration trends. Given the current highly uncertain economic outlook, future population growth in the short-to-medium term is likely to be significantly less than current projections and targets, to be strongly reliant on natural increase and to retain a distinct geographic bias towards higher-employment, urban locations, particularly the Greater Dublin Area (see DIT Futures Academy, 2008). These much-changed circumstances will have significant implications for the future implementation and direction of NSS policy.

Depopulation and spatial planning practice in Ireland

Despite the current economic recession and pessimistic outlook, current NSS policy does not explicitly conceive that any region will experience sustained depopulation. As a result, no active arrangements exist for anticipating, accommodating or planning for further depopulating trends. Political, cultural and economic imperatives dictate that the intuitive spatial planning policy response to depopulation is to approach it as a major problem that must be overcome at all costs and reversed. Population growth is seen as the norm, the ideal to guide future development and an important indicator and measure of success (Hollander and Németh, 2011; Shiel, 2010). Depopulation, on the other hand, is considered to be exclusively associated with negative consequences; an anomaly that is overlooked or understood as less significant than growth in prospering regions or cities elsewhere (Popper & Popper, 2010). The dominant discourse is to perceive depopulation as a stigma that does not fit with normative objectives for regional planning and development policy (Beauregard, 2003).

In recent decades Irish spatial planning practice has increasingly displayed a tropism for an 'entrepreneurial' approach. Planning institutions and policies have been reconfigured around the agenda of economic development and competition (Fox-Rogers et al., 2011; Kitchin et al., 2012). As a result, pro-growth policy prescriptions to arrest population and economic decline have become hegemonic, including paradoxically in continuously depopulating regions, often contrary to NSS policy. The history of Irish urban and regional development policy is replete with examples of this orthodoxy, including the Shannon Free Airport Development Company, established in the 1950s; Integrated Area Urban Renewal Schemes and their associated 'Section 23' property tax reliefs; the Dublin

Docklands Development Authority; and the Upper Shannon Rural Renewal Scheme, which introduced property-development incentives to encourage people to reside in designated rural areas, and to promote new economic activity (Department of Finance, 1999). Indeed stemming rural depopulation is one of the most persistent arguments made in favour of promoting 'one-off' rural housing (Brereton et al., 2010). All of these conventional approaches aimed for population growth in order to stimulate economic growth (and vice versa). However, as Pallagst et al. (2009) have observed, in regions that are predisposed to overarching trajectories of depopulation and economic decline, growth-oriented solutions are an approach that rarely leads to success. In most cases such approaches simply amplify the adverse consequences of depopulation and initiate feedback loops that reinforce a downward spiral towards further decline.

In the case of the Upper Shannon Rural Renewal Scheme, for example, a review of the scheme commissioned by the Department of Finance concluded that it had largely failed to achieve its objectives, that it had been poor value for money and that there had been little impact on economic activity (Department of Finance, 2006). The review found that residential property construction had constituted 88 per cent of expenditure, the vast bulk of which had been spent on speculative new build. This has resulted in a massive oversupply of new dwellings and a significant legacy of vacancy and so-called 'ghost estates' (Kitchin et al., 2010). The scheme led to an enormous over-reliance in the local economy on an artificially inflated construction sector. As a result, following the collapse of the property bubble, a large proportion of the regions' construction workforce lost their jobs with dramatic impacts on the local economy, resulting in significant out-migration and unemployment (Western Development Commission, 2009).

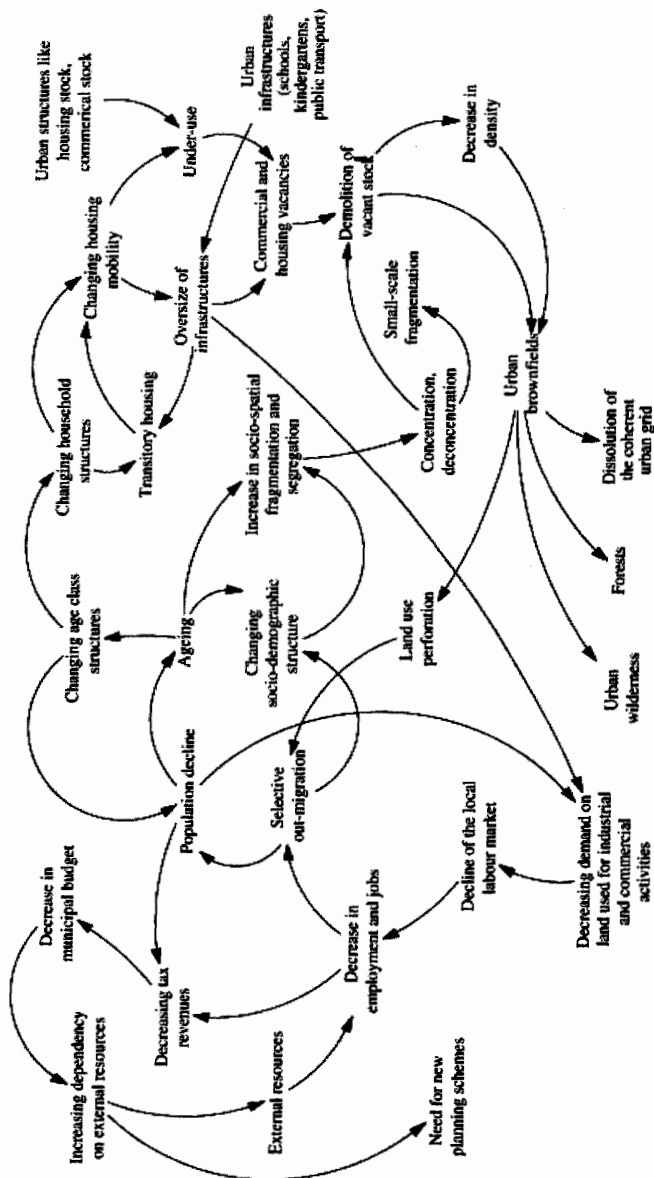
In the aftermath of the Celtic tiger period, the limits of growth-based policy prescriptions to arrest population decline and promote economic regeneration have become readily apparent. 'Economic saviours' (such as tax incentives for new housing, facilitating a new industry, etc.) often ignore underlying demographic dynamics, with short-term economic priorities taking precedence over longer-term social objectives, resulting in poor planning outcomes. The absence of a more comprehensive, long-term strategy to deal with a broad range of economic, social and physical issues has left many regions experiencing continued depopulation, despite short-term initiatives.

Depopulation implies severe impacts on every domain of urban and regional development, including municipal budgets, infrastructure and amenities, housing market and housing mobility, labour market and employment, residential composition, and social inclusion and cohesion – the entire basis of spatial planning. Moreover, many of the impacts of depopulation are dynamic, multidimensional, interdependent, and spatially and temporally uneven (see Figure 2). A contracting population results in a growing imbalance between the supply and demand for housing and infrastructure (particularly social infrastructure such as schools, police stations and postal services), together with a reduced demand for commercial services. As a result, these services become underutilised and poorly maintained, and often have to be abandoned or withdrawn. Local living conditions and quality of life deteriorates and unemployment rises, resulting in the emergence of vacant land and derelict buildings. The changing demographic profile, particularly a rise in the proportion of elderly people and the out-migration of younger, well-educated people, perpetuates a cycle of abandonment and decline. This in turn places greater pressure on local authority budgets, which are simultaneously burdened with low fiscal income and high social expenditure (Shrink Smart, 2009).

This emerging context presents some of the most challenging and far-reaching questions for planning practice and the fundamental principles upon which regional development and planning policy have been traditionally based. As Haase et al. (2012) note, 'It is difficult to steer depopulation because under the conditions it produces, governance arrangements can become unstable due to a high dependency on external funding, funding-dependent restrictions on initiatives and unstable coalitions among weak actors.' That is not to say, however, that it cannot be managed to minimise associated negative consequences.

Emerging planning governance models of how to manage depopulation exist internationally and are increasingly becoming the focus of planning research. However, future planning policy and practice in depopulating regions in the context of the sustained absence of public or private capital has generated little substantive discussion. Planning practitioners and policymakers have adopted a 'wait and see' approach in the hope that economic activity and urban development will resume, rather than developing a proactive, strategic approach. The deeply embedded dominance of a growth-oriented planning culture forecloses an active dialogue and an honest

Figure 2: Conceptual relational model displaying the causal relationships between the variables of shrinkage, namely its drivers, processes and impacts



Source: Haase et al. (2012).

recognition of the reality of decline that planning researchers and practitioners in Europe and North America have been engaging in for some time.

'Shrinkage planning' research

Internationally, depopulation and economic decline are not new or rare phenomena. Cities and regions have always lost or gained population because of economic shifts, technology, immigration or environmental disasters, occasionally to the point of total abandonment (Bernt et al., 2012; Popper & Popper, 2010). Depopulation has become the rule for many international cities and regions in developed countries, particularly in post-industrial and post-socialist cities, and this trend is predicted to continue (Oswalt, 2006). Heavy depopulation has been experienced in cities and regions of the former East Germany following the collapse of the Soviet bloc (e.g. Dresden, Leipzig), in northern UK (e.g. Manchester, Liverpool) and in post-industrial 'Rust Belt' cities in the US (e.g. Detroit, Cleveland and Buffalo). It is estimated that even before the global economic crisis of 2008 one-quarter of all cities internationally with populations of over 100,000 were in decline (Oswalt et al., 2006).

In Canada 83 per cent of all recent population growth has been concentrated in mega-regions such as the Greater Toronto Area, with the majority of the country experiencing no growth or decline (Hall & Hall, 2008; Schatz, 2008). In the US, recent population growth is similarly concentrated in large urban agglomerations along the eastern and western seaboard, with significant population losses in the mid-west and south of the country (Beauregard, 2003). Famously, 161,000 buildings were demolished between 1970 and 2000 in Detroit (Byles, 2006), and in the first decade of the twenty-first century it lost over 25 per cent of its population (Hollander & Németh, 2011). Depopulation is particularly pronounced in Europe where 54 per cent of all urban regions are estimated to have declining populations (Bernt, 2009; Pallagst & Wiechmann, 2012). The ESPON DEMIFER (Demographic and Migratory Flows Affecting European Regions and Cities) project, for example, forecasts that by 2050, even under favourable conditions, 35–40 per cent of all European NUTS 2 regions will have experienced demographic ageing, low birth rates and out-migration to larger cities, causing remote and peripheral regions to lose population, especially in Eastern Europe (ESPON, 2010). According to a 2008 study prepared for the European Parliament, the restructuring of

shrinking regions presents some of the most challenging issues for the territorial cohesion of the EU, requiring a review of every aspect of EU policy (Grasland et al., 2008).

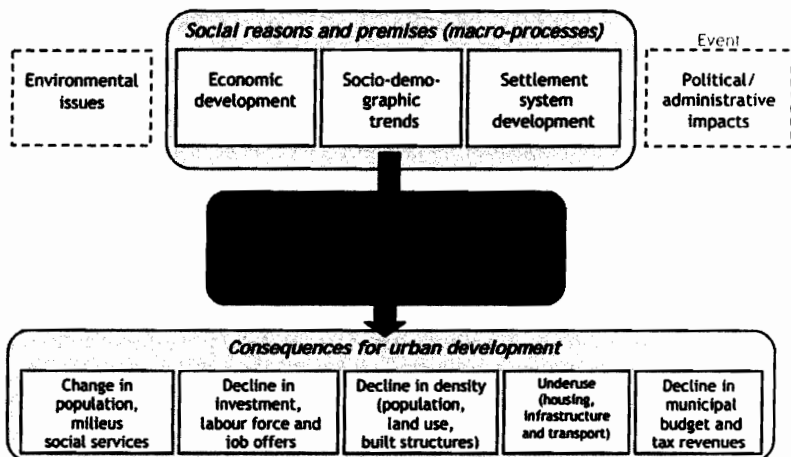
The empirical evidence of the reality and increasing prevalence of demographic decline globally has resulted in an embryonic international research agenda and prompted some scholars and practitioners of the built environment and spatial planning to examine how cities shrink (Hollander et al., 2009; see also Blanco et al., 2009). In response to the particularly severe depopulation in East Germany following reunification in 1990, the German federal government funded the 'Shrinking Cities' research project (www.shrinkingcities.com) while the EU has funded the 'Shrink Smart' (www.shrinksmart.eu) research project, which aim to study different trajectories of shrinkage, understand the main challenges for spatial planning and elaborate alternatives for planning governance. This nascent research agenda and growing body of literature have rallied around the term 'shrinkage' (which has gained most widespread acceptance in Europe) as an antidote to the dominant narrative associated with negative terminology such as 'urban blight', 'urban decay' or 'demographic depression'.

While research to date has focused largely on cities, rural regions have also been the subject of inquiry. In 1987 Frank and Deborah Popper coined the term 'Buffalo Commons' as a metaphor for a restoration-based approach to the future development of the Great Plains Dust Bowl region of the US – a rural region beset by environmental and economic crises for over a century (Matthews, 2002; Popper & Popper, 1987). Initially, a sceptical public and politicians provoked opposition to the proposal to willingly accept decline and the undoing of settlement (Rees, 2005). However, gradually the concept to introduce 'environmentally sensitive land uses' that fell somewhere between 'traditional agriculture and pure wilderness' gained greater acceptance. The Buffalo Commons concept provoked much debate and led, directly or indirectly, to many public and private initiatives that followed its direction (Popper & Popper, 2008).

Many factors influence population decline, including globalisation and the post-Fordist transformation of city regions to service-oriented economies, together with suburbanisation and the 'hollowing out' of urban cores. The emergence of the new economic realities of global capitalism is considered to be a key factor in understanding recent patterns of (uneven) socio-spatial development that have had

profound implications for social and demographic change throughout the Western world (Harvey, 1989; Pallagst & Wiechmann, 2012). However, declining trends are no longer simply explained as a consequence of the loss of traditional industrial manufacturing, but can be triggered by any economic changes, including so-called 'economic transformations of a second generation' (Pallagst & Wiechmann, 2012). For example, a number of major Sun Belt cities in the US's Silicon Valley lost significant population following the collapse of the 'dot-com' bubble in the early 2000s, resulting in a huge real-estate collapse (Pallagst, 2007). Equally, depopulation can be gradual as a result of natural decline, including reduced fertility rates and an ageing population, or rapid as a result of an environmental disaster. For instance, the population of New Orleans dropped by 60 per cent overnight following Hurricane Katrina in 2006 (Lindsey, 2007). However, researchers have shown that depopulation generally cannot be analysed as a result of a single process but as a consequence of the dynamic interplay of different socio-economic macro-processes at a local scale (Bernt et al., 2012; see Figure 3).

Figure 3: Causes and consequences of urban shrinkage



Source: Shrink Smart (2009).

Shrinkage research approaches the subject of depopulation in a positive or neutral way, instead of the negative perspective more often associated with decline (Hollander & Hollander, 2008). The

underlying thesis is that depopulation must, like growth, be planned and that it is possible for a place to lose population while ensuring a high quality of life and positive economic, social and environmental outcomes (Johnson et al., 2012). Further, and perhaps most provocatively, researchers offer that depopulation is not exclusively associated with problems and may also be conceived as an opportunity to positively reshape the future of cities and regions and improve quality of life (Müller & Siedentrop, 2004; Popper & Popper, 2008). For example, in many urban regions deindustrialisation has led to an improvement in the quality of the natural environment, a decrease in environmental pollution and an increase in green, open space. An analysis of thirty-eight US cities in 2011 found that shrinking cities often did not witness a significant decline in neighbourhood-quality scores and that growing cities often experienced worsening scores as a result of, for example, increased stress and traffic congestion (Hollander, 2011).

This break from the standard growth-oriented outlook opens up possibilities for planning practitioners to recognise the inevitability of depopulation and proactively work towards managing demographic and socio-economic shifts, to find new approaches to effectively anticipate and adapt to future development trends, and to creatively re-examine how land-uses are traditionally allocated (Hollander & Németh, 2011). Others suggest that shrinkage planning may provide a method to creatively mobilise endogenous resources of regions (e.g. new economic sectors and initiatives) and increase resilience and adaptive capacity by down-sizing infrastructure and right-sizing the local economy through tapping into the innovation of citizens and ecosystems (Müller & Siedentrop, 2004). Moreover, shrinkage planning might offer a paradigm shift from the dominant growth-centred, entrepreneurial planning culture to more careful and place-based approaches (see Table 2).

Smart decline in practice

A number of US and European cities have experimented with a variety of innovative strategies to deal with demographic decline. Here, we provide two examples of a city and a region that have tentatively tried to craft measures which accept the persistence, even permanence, of depopulation, providing insights that policymakers in Ireland might learn from. In both cases it was eventually recognised that conventional planning strategies to deal with depopulation had

Table 2: Characteristics of growth-oriented and decline-oriented planning

<i>Growth-oriented planning</i>	<i>Decline-oriented planning</i>
The focus is on growth, spatial planning as 'distribution' of quantitative increases (settlement and traffic land, population, jobs, etc.).	The focus is on redevelopment, cost-efficient stock development, stabilisation, revitalisation, qualitative development (residential environment, infrastructure, traffic, etc.).
Building-law and regional-planning tools directed mainly towards new development of land and new construction; infrastructure development as concession and incentive for investment.	Importance of derelict land, recycling of land and buildings, differentiated reconversion, adaptation of infrastructure to changed needs.
Growth-oriented control (land use and constructional development).	Initiation and organisation of reconversion, rehabilitation and development with scarce financial resources.
Planning as the basis for distributing growth, separation of spatial functions (home, place of work, etc.).	Planning as management of shrinkage processes, small-scale functional mix.
Order-oriented control of land use and constructional development, designation of settlement land, protection of open areas.	Strategic planning and integrated concepts, consequence assessment, taking account of life cycle of facilities and demographic changes, model projects, use options, activation, contractual arrangements, efficiency.
Inter-municipal competition (residents, industry, etc.), sectoral incentives, inter-sectoral framework control.	Inter-municipal cooperation, equalisation arrangements, multilevel cooperation, inter-sectoral coordination.

Source: (Müller and Siedentrop, 2004).

reached their limits, calling for the institution of alternative decline-oriented planning responses.

Youngstown, Ohio

Since the 1950s, following the collapse of the steel industry, the city of Youngstown, Ohio, has lost over half its population – from 166,000 in 1960 to 82,000 in 2005 – and projections indicate that by 2030 the population will fall further to 54,000 (City of Youngstown, 2005). The city experienced all of the characteristic symptoms of decline, including visibly declining neighbourhoods with abandoned and vacant buildings, high crime, and an ageing and heavily minority population (Hollander, 2009). Following decades of failed strategies that aimed to restart economic development, whereby the city sought ‘economic saviours’ (such as new industries and a military base), in 2002 the city made a radical break from previous growth-oriented strategies and developed a plan for proactively dealing with population decline (Schatz, 2008).

The *Youngstown 2010 Citywide Plan* calls for a ‘better, smaller Youngstown’, recognises that there is no possibility of future population growth and aims to deliberately depopulate and deurbanise, rather than attempting to grow, as a basis for moving forward (City of Youngstown, 2005). In many ways, the plan is groundbreaking in the context of the US’s market-oriented economic and planning traditions (Pallagst & Wiechmann, 2012). The plan accepts that Youngstown is a depopulating city burdened by an oversized infrastructure that can no longer be sustained. The vision that forms the basis of the plan was arrived at after an open and honest dialogue with community stakeholders.

The major focus of the plan, which is still in its early implementation phase, is essentially on physical regeneration, including the ‘unbuilding’ of the city (Schatz, 2008). The plan also proposes the consolidation of urban infrastructure and strategic concentration of services in a revitalised downtown core. Of special relevance is the creation of a new ‘green network’ by linking existing green spaces, converting and re-naturalising old industrial brownfield sites to create a system of parks, promoting urban agriculture and restoring the city’s watercourses and wetlands. The plan also places a moratorium on new house building in certain locations, allowing residents to buy adjacent vacant properties to create larger plots, selectively demolishing vacant buildings and incentivising homeowners to move to alternative areas of the city (Lindsey, 2007). The whole process aims to rebuild the city

on a downsized scale, with new principles such as not planning for new settlement areas but rather strengthening existing local businesses and services. An important part of the plan is an emphasis on regional governance and the search for solutions at a regional scale by means of stronger inter-local cooperation (Pallagst & Wiechmann, 2012).

East Germany

Since 1990 East Germany has experienced exceptionally severe depopulation due to a large deficit in births and sustained high levels of out-migration. The transformation from a centrally planned system to a free-market system led to almost complete collapse. Total population losses between 1990 and 2002 amounted to 1.2 million. These trends ran totally contrary to the development in the western part of Germany, where during the same period net inward migration in economically prosperous agglomerations was about 4 million people. Even within East Germany the shrinkage process was highly spatially uneven, with pockets of growth and shrinkage coexisting side by side (Bernt, 2009). Paradoxically, throughout the 1990s East German cities such as Dresden experienced a 'hyper-dynamic' phase of housing construction driven by over-optimistic population projections and generous federal government tax incentives, which led to a massive oversupply in housing. A total of 773,000 apartments were built between 1991 and 1999, mostly on greenfield sites, leading to a vacancy rate of more than 20 per cent (Bernt, 2009; Pallagst & Wiechmann, 2012). Future perspectives offer little optimism, and the projections for East Germany forecast further heavy population losses that could potentially lead to a total decline in population of 60 per cent by 2050 (Bernt, 2009).

The abrupt collapse of a formerly highly industrialised region led to structural symptoms similar to those of other shrinking regions, including increasing numbers of housing vacancies, spatial fragmentation, derelict sites, a fall in demand for commercial activities and an ageing workforce. This led to huge problems in the housing market and compromised the viability of public service provision, leading to enormous challenges in infrastructure provision (Moss, 2008). A public debate emerged as to the socially acceptable minimum standard of municipal services provision. Despite the realities of the situation, the mass exodus was perceived as a singular occurrence with growth-oriented policy approaches remaining largely unquestioned and shrinkage remaining a political taboo. Policymakers considered

the problem insoluble and were unable to cope with the depopulation in a proactive way (Pallagst & Wiechmann, 2012).

In response to the crisis and the significant hardship experienced by local populations, since 2000 the situation has changed significantly and the concept of shrinkage has become the subject of an open and deliberate public debate (Oswalt, 2006). In 2002 the federal government completed an about-turn, recognising that a *laissez-faire*, free-market approach was not an appropriate solution and introducing a seven-year programme with a budget of €2.5 billion called *Stadtumbau Ost* (*Urban Restructuring East*). Its chief purpose was to stabilise the housing market by providing funding for 'backward building' (demolition) of 350,000 abandoned and underused buildings and improving more stable residential districts (Pallagst & Wiechmann, 2012). Reconstruction and partial demolition were concentrated in urban cores and complete demolition was targeted in out-of-centre locations to provide greenbelts and reduce municipal service costs. A precondition for federal government funding of schemes was close collaboration between local councils and housing companies in preparing multi-actor, cross-sectoral development strategies (Bernt 2009; Walsh & Allin 2012).

Lessons for Irish spatial policy

Both *Stadtumbau Ost* and the Youngstown approach have been criticised for being too narrowly focused on physical redevelopment and regaining housing market equilibrium, and therefore paying less attention to social issues (Glock & Häussermann, 2004; Schatz, 2008). However, both offer thought-provoking insights into how a radical change in governance culture can prompt a reorientation in the homogenous, mono-directional tendency of spatial planning practice. In both of these case studies, the normative optimism amongst policymakers and focus on growth-oriented policy prescriptions have not been completely displaced, but complemented with pragmatic, heterogeneous solutions that place more careful emphasis on context. While the outcome of such policies is by no means certain, international comparative research on the practical experiences of cities and regions that have reconceptualised depopulation as 'shrinkage' and experimented with new tools to proactively manage degrowth may help to offer a coherent political and planning perspective in the Irish context which transcends the pessimism often associated with depopulation.

From the point of view of social justice, the impact of uneven global economic restructuring and pursuing increasingly spatially selective, urban-centric territorial-development policies demands that policymakers are capable of managing the consequences of depopulation and stagnation in peripheral and marginal regions in a proactive and sophisticated manner. This requires defining the scope of the challenges and outlining the boundaries of policy and planning responses. According to the EU Shrink Smart project there are essentially three policy responses to depopulation: (1) to do nothing – either to deny that there is a problem or to recognise the problem but not to respond; (2) to try and reverse the trend towards population decline and to stimulate population growth; (3) to accept decline and to manage its consequences. Combining these approaches, policymakers essentially have two choices: conservative (growth-oriented) and radical (accepting/mediating) (Rink et al., 2012).

In the context of the NSS, adapting planning strategies when faced with the dynamics of unplanned regional depopulation implies major and complex challenges, the need for political leadership, and a comprehensive and integrated approach. There is no one-size-fits-all answer and a multiplicity of responses will be required, all tailored to meet specific cultural, institutional and spatial situations. However, emerging shrinkage research points to some common policy instruments and themes that may help shape the focus of future planning efforts at a strategic level:

- A much greater focus on a specific ‘place-based’ approach to national spatial policy is required. Current NSS policy predates much of current place-based thinking, which forms the centre-piece of ongoing reform of EU-wide cohesion policy. Place-based approaches are aimed at reducing persistent inefficiency and inequality in specific places, through the promotion of bundles of public goods and services aimed at triggering institutional change, improving the well-being of people and the productivity of businesses, and promoting innovation. The goods and services concerned need to be tailored to places by eliciting and aggregating local preferences and knowledge, and by taking account of linkages with other places (Barca, 2009). This implies a much greater integration between spatial policy and economic governance (particularly EU funding programmes), and enhanced use of economic incentives and disincentives through appropriate multilevel governance, oversight and monitoring.

- The complexity and interdependent nature of the issues associated with depopulation require that they can only be effectively addressed on a wider spatial scale, implying a new relevance of integrated regional mechanisms for cooperation. An integrative, supra-local approach provides a better balance between cooperation and competition and limits the wasteful results of intra-municipal rivalry. The region will therefore become a more important spatial planning platform for efficiency-oriented settlement structures and the coordinated development of regional adjustment strategies (e.g. shared services, rationalising infrastructure, etc.).
- Based on the East German experience, the establishment of a single specific, horizontal coordinating agency to manage cross-sectoral actors provides a more comprehensive approach for the management of different actors' interests (e.g. health, education, social services, economic development, river basin management, etc.). This approach can foster a greater understanding by sectoral policymakers of the territorial dimension of public and private investment and the need for the discontinuation of 'spatially blind' policy decisions. This may be complemented with multisettlement strategic planning, which aims to strengthen strategic, intra-urban networks, enhance service delivery and achieve a more efficient use of public resources.
- Adaptation strategies need to be coherent and holistic, and need to address all of the economic, social and environmental issues associated with shrinkage, and not focus partially on, for example, economic development (Bernt et al., 2012). In the current economic circumstances there is often a tendency to seize upon short-term 'economic saviours' regardless of the potential longer-term economic, social and environmental consequences, and potentially weakening local resilience to exogenous forces.
- Policymakers need to be more aware of multiple future demographic and development scenarios in making policy decisions and not simply focus on a single growth trajectory. This will require a greater emphasis on multiple-pathway scenario-planning exercises based on realistic assumptions, including low-growth and no-growth modelled scenarios, and a more holistic understanding of long-term forces of local demographic change and the consequences for policymaking processes (Bernt et al., 2012).
- Active instruments to integrate planning and urban-regeneration initiatives and to manage sprawl are required, including the

introduction of targets for brownfield redevelopment and limiting greenfield development. A key policy recommendation of the NSS is a strong focus on boosting the development capacity of smaller villages and rural towns, particularly through local authority and private investment in water services to release development land. However, proactive policies to curb sprawl have been largely absent over the past two decades. One potential policy option is the introduction of a national policy on serviced sites initiatives as an alternative to dispersed settlement policies (see, for example, Limerick County Council, 2008). Other policy instruments include introducing spatially selective housing moratoria, (for example, a prohibition of new unsewered dwellings in hydrogeologically sensitive areas), demolitions and temporary uses that can offer opportunities for quality-of-life improvement, stimulate economic regeneration and attract new residents. Such approaches call for government-led sponsorship and the development of model projects to unlock barriers (e.g. flexible zoning, contractual arrangements, etc.) to promote innovative ideas for the reuse of derelict land, recycling of land and buildings, and adaptation of infrastructure to changed needs.

- Shrinkage opens up the possibilities for instituting new ecosystem-management approaches to strategic spatial planning and environmental remediation. Green infrastructure plans and programmes, such as the proposals articulated by Comhar – Sustainable Development Council (2010), can provide coherent and integrated policy responses to flood mitigation, climate-change adaptation, habitat enhancement and river basin management planning – all of which are key national challenges. Green infrastructure approaches also provide potential for new green urban uses such as urban agriculture and forestry, together with more cost-effective and sustainable responses to protecting water quality through the construction of integrated wetlands, bioswales and other passive water-management resources (LaCroix, 2011; Schilling & Logan, 2008).

Conclusion

Shrinkage-planning research offers a new discourse on thinking about the future direction and implementation of NSS policy. The idea of willingly accepting decline and planned downsizing appears counterintuitive in the context of normative Western culture and is

unlikely to be uncontroversial. However, the idea that geography and exogenous forces can overwhelm even the best-conceived local development strategies should now also be uncontroversial. Regional decline is likely to increasingly become the new norm in many peripheral regions, and the task will become one of ensuring a managed transition to an economic base concomitant with future (lower) population levels (Polèse & Shearmur, 2006). Indeed, future demographic prospects and plans for many Irish regions imply the need for planning agendas that are aimed more at 'coping with decline' rather than 'going for growth', for which planning practitioners in Ireland have had little background, experience or recourse (Hollander et al., 2009). From the perspective of national territorial-development policy, this new context calls for growth-oriented planning paradigms to be paralleled with a simultaneous 'decline-paradigm' (Müller & Siedentrop, 2004).

Explicitly planning for less people, fewer buildings and fewer land uses demands its own distinct approach, which means not only a change in policy perspective but, importantly, a strengthening of public debate, a gradual change in political discourse and an honest and mature admission that much of local destiny lies beyond local control (Popper & Popper, 2002). An inclusive public debate in which depopulation is not simply conceived as a problem but as a window of opportunity for regions to redefine themselves and to compete on the basis of mobilising endogenous resources (such as in agriculture or the new 'green economy') and better living conditions, compared with growing towns and cities, may assist in building a fundamental new societal consensus for the implementation of NSS policy and territorially differentiated planning strategies. The failure to undertake such a debate or to implement spatially differentiated territorial-development policies will have enormous social, economic and environmental consequences for Ireland, hampering recovery from the present recession and continuing the practice of inappropriately located development that places an excess burden on the public purse with respect to service delivery. The experience from elsewhere shows that it is better to embrace and proactively plan for degrowth, rather than to let areas slowly wither on the vine in an ad hoc fashion. Despite the 'refresh' of the NSS and significant legislative changes, the dominant ethos of planning in Ireland is *laissez-faire* and pro-growth, and such attitudes are deeply ingrained in the planning and political systems. A major challenge then in the coming years is to refashion hegemonic thought in order to act smarter in the development of strategic spatial and settlement policy.

References

- Advisory Group on Unfinished Housing Developments. (2011). *Resolving Ireland's unfinished housing developments: Report of the advisory group on unfinished housing developments*. Dublin: Department of the Environment, Community and Local Government.
- Barca, F. (2009). *An agenda for a reformed cohesion policy: A place-based approach to meeting European Union challenges and expectations*. Brussels: European Commission.
- Beauregard, R. (2003). Aberrant cities: Urban population loss in the United States, 1820–1930. *Urban Geography*, 24 (8), 672–90.
- Bernt, M. (2009). Partnerships for demolition: The governance of urban renewal in East Germany's shrinking cities. *International Journal of Urban and Regional Research*, 33 (3), 754–69.
- Bernt, M., Cocks, M., Couch, C., Grossman, K., Haase, A., & Rink, D. (2012). *Policy response, governance and future directions, shrink smart research brief no. 2*. Leipzig: Helmholtz Centre for Environmental Research.
- Blanco, H., Alberti, M., Olshansky, R., Chang, S., Wheeler, S. M., Randolph, J., ... Watson, V. (2009). Shaken, shrinking, hot, impoverished and informal: Emerging research agendas in planning. *Progress in Planning*, 72 (4), 195–250.
- Breathnach, P. (2010). *The national spatial strategy update – More of the same old 'same old'*. Retrieved from irelandafternama.wordpress.com/2010/10/14/the-national-spatial-strategy-update-%e2%80%93-more-of-the-same-old-%e2%80%93same-old-%e2%80%9d/ [19 November 2012].
- Brereton, F., Brophy, V., Bullock, C., Clinch, P., Foley, K., Gilbert, D., ... Winston, N. (2010). *Sustainable rural development: Managing housing in the countryside*. Wexford: Environmental Protection Agency.
- Byles, J. (2006). *Rubble: Unearthing the history of demolition*. New York: Crown Publishing Group.
- Central Statistics Office. (2011). *Population and migration estimates April 2011*. Dublin: Central Statistics Office.
- Central Statistics Office. (2012a). *Planning permissions quarter 1 2012*. Dublin: Central Statistics Office.
- Central Statistics Office. (2012b). *This is Ireland: Highlights from census 2011, part 1*. Dublin: Central Statistics Office.
- City of Youngstown. (2005). *Youngstown 2010 citywide plan*. Retrieved from www.cityofyoungstownoh.com/about_youngstown/youngstown_2010/plan/plan.aspx [19 November 2012].
- Comhar – Sustainable Development Council. (2010). *Creating green infrastructure for Ireland - Enhancing natural capital for human wellbeing*. Dublin: Comhar – Sustainable Development Council.
- Davoudi, S., & Wishardt, M. (2005). The polycentric turn in the Irish spatial strategy. *Built Environment*, 31 (2), 122–32.

- Department of Finance. (1999). *Budget 2000 – Tax strategy group papers, TSG99/32: Urban and rural renewal tax incentive schemes*. Retrieved from www.finance.gov.ie/viewdoc.asp?DocID=1165 [19 November 2012].
- Department of Finance. (2006). *Budget 2006: Review of tax schemes – Volume II: Goodbody review of area-based tax incentive renewal schemes*. Retrieved from <http://www.finance.gov.ie/documents/publications/other/Taxrev2006vol2.pdf> [19 November 2012].
- Department of the Environment, Community and Local Government. (2011). *Regional authorities – Regional planning guidelines implementation: Annual report 2011*. Dublin: Department of the Environment, Community and Local Government.
- Department of the Environment, Heritage and Local Government. (2009). *Regional planning guidelines review: Gateway and hub population targets*. Dublin: Department of the Environment, Heritage and Local Government.
- Department of the Environment, Heritage and Local Government. (2010). *Implementing the national spatial strategy – 2010 update and outlook: Harnessing potential, delivering competitiveness, achieving sustainability*. Dublin: Department of the Environment, Heritage and Local Government.
- DIT Futures Academy. (2008). *Twice the size?: Imagineering the future of Irish gateways*. Dublin: DIT Futures Academy.
- ESPON. (2010). *DEMIFER: Demographic and migratory flows affecting European regions and cities – Applied research 2013/1/3: Final report*. Retrieved from www.espon.eu/main/Menu_Projects/Menu_Applied_Research/demifer.html [19 November 2012].
- Faludi, A. (2006). From European spatial development to territorial cohesion policy. *Regional Studies*, 40 (6), 667–78.
- Forfás. (2009). *Our cities: Drivers of national competitiveness*. Retrieved from www.forfas.ie/publications/2009/title,3951,en.php [19 November 2012].
- Fox-Rogers, L., Murphy, E., & Grist, B. (2011). Legislative change in Ireland: a Marxist political economy critique of planning law. *Town Planning Review*, 82 (6), 639–68.
- Glock, B., & Häussermann, H. (2004). New trends in urban development and public policy in Eastern Germany: Dealing with the vacant housing problem at the local level. *International Journal of Urban and Regional Research*, 28 (4), 919–29.
- Government of Ireland. (2002). *The national spatial strategy 2002–2020: People, places and potential*. Dublin: The Stationery Office.
- Grasland, C., Ysebaert, R., Corminboeuf, B., Gaubert, N., Lambert, M., Salmon, I., ... Stoleriu, O. (2008). *Shrinking regions: A paradigm shift in demography and territorial development*. Brussels: European Parliament.
- Haase, D., Haase, A., Kabisch, N., Kabisch, S., & Rink, D. (2012). Actors and factors in land-use simulation: The challenge of urban shrinkage. *Environmental Modelling & Software*, 35, 92–103.
- Hall, H. M., & Hall, P. V. (2008). Decline and no growth: Canada's forgotten urban interior. *Canadian Journal of Regional Science*, XXXI (1), 1–18.

- Harvey, D. (1989). From managerialism to entrepreneurialism: The transformation in urban governance in late capitalism. *Geografiska Annaler. Series B, Human Geography*, 71 (1), 3–17.
- Hollander, J. B. (2009). *Polluted and dangerous: America's worst abandoned properties and what can be done about them*. Lebanon, New Hampshire: University Press of New England.
- Hollander, J. B. (2011). Can a city successfully shrink? Evidence from survey data on neighborhood quality. *Urban Affairs Review*, 47 (1), 129–41.
- Hollander, J. B., & Németh, J. (2011). The bounds of smart decline: A foundational theory for planning shrinking cities. *Housing Policy Debate*, 21 (3), 349–67.
- Hollander, J. B., Pallagst, K., Popper, F., & Schwarz, T. (2009). Planning shrinking cities. *Progress in Planning*, 72 (4), 223–32.
- Hollander, P., & Hollander, J. B. (2008). Activist literacy in shrinking cities: Lessons for urban education. *Language Arts Journal of Michigan*, 24 (1), 41–50.
- Johnson, M. P., Jr., Hollander, J., & Hallulli, A. (2012). *Maintain, demolish, re-purpose: Policy design for vacant land management using decision models*. Retrieved from works.bepress.com/michael_johnson/35 [19 November 2012].
- Kitchin, R., Gleeson, J., Keaveney, K., & O'Callaghan, C. (2010). *A haunted landscape: housing and ghost estates in post-Celtic tiger Ireland*. [NIRSA Working Paper Series. No. 59]. Retrieved from eprints.nuim.ie/2236/ [19 November 2012].
- Kitchin, R., O'Callaghan, C., Gleeson, J., Keaveney, K., & Boyle, M. (2012). Placing neoliberalism: The rise and fall of Ireland's Celtic tiger. *Environment and Planning A*, 44 (6), 1302–26.
- LaCroix, C. J. (2011). Urban green uses: The new renewal. *Planning & Environmental Law*, 63 (5), 3–13.
- Limerick County Council. (2008). *Serviced residential sites in towns & villages*. Retrieved from www.lcc.ie/NR/rdonlyres/C034502A-0D12-4CD3-BDD2-A91191F9CA15/0/FlyerA5.pdf [19 November 2012].
- Lindsey, C. (2007). Smart decline. *Panorama*, 17–21.
- Matthews, A. (2002). *Where the buffalo roam: Restoring America's great plains* (1st ed.). Chicago: University Of Chicago Press.
- Moss, T. (2008). 'Cold Spots' of urban infrastructure: 'Shrinking' processes in Eastern Germany and the modern infrastructural ideal. *International Journal of Urban and Regional Research*, 32 (2), 436–51.
- Müller, B., & Siedentrop, S. (2004). Growth and shrinkage in Germany – Trends, perspectives and challenges for spatial planning and development. *German Journal of Urban Studies*, 44 (1).
- Murray, M. (2004). Strategic spatial planning on the island of Ireland. *Innovation: The European Journal of Social Science Research*, 17 (3), 227–42.

- Oswalt, P. (2006). *Shrinking cities: Volume 1*. Ostfildern: Hatje Cantz Publishers.
- Oswalt, P., Beyer, E., Hagemann, A., & Rieniets, T. (2006). *Atlas of shrinking cities* (bilingual ed.). Ostfildern: Hatje Cantz Publishers.
- Pallagst, K. (2007). *Shrinking cities in the United States of America*. Retrieved from metrostudies.berkeley.edu/pubs/proceedings/Shrinking/ [19 November 2012].
- Pallagst, K., Schwarz, T., Popper, F. J., & Hollander, J. B. (2009). Planning shrinking cities. *Progress in Planning*, 72 (4), 223–32.
- Pallagst, K. M., & Wiechmann, T. (2012). Urban shrinkage in Germany and the USA: A comparison of transformation patterns and local strategies. *International Journal of Urban and Regional Research*, 36 (2), 261–80.
- Polèse, M., & Shearmur, R. (2006). Why some regions will decline: A Canadian case study with thoughts on local development strategies. *Papers in Regional Science*, 85 (1), 23–46.
- Popper, D. E., & Popper, F. J. (2002). Small can be beautiful: Coming to terms with decline. *Planning*, 68 (7), 20–3.
- Popper, D. E., & Popper, F. (2008). The buffalo commons: Its antecedents and their implications. *Online Journal of Rural Research & Policy*, 1 (6).
- Popper, D., & Popper, F. (2010). *Smart decline in post-carbon cities: The buffalo commons meets Buffalo New York*. Retrieved from <http://www.energybulletin.net/stories/2010-07-20/smart-decline-post-carbon-cities> [19 November 2012].
- Popper, F. J., & Popper, D. (1987). The Great Plains: From dust to dust. *Planning*, 53 (12), 12–18.
- Rees, A. (2005). *The buffalo commons: Great Plains residents' responses to a radical vision*. Retrieved from digitalcommons.unl.edu/greatplainsquarterly/188 [19 November 2012].
- Rink, D., Rumpel, P., Slach, O., Cortese, C., Violante, A., Bin, P., ... Krzystofik, R. (2012). *Governance of shrinkage – Lessons learnt from analysis for urban planning policy*. Retrieved from www.ufz.de/export/data/400/39029_WP7_D13_14_15_FINAL_2.pdf [19 November 2012].
- Schatz, L. (2008). *Innovation in the face of population decline: 'Smart shrinkage' in Youngstown, Ohio*. Retrieved from mailer.fsu.edu/~iaudirac/garnet-iaudirac/WEB2/Youngstown_LSchatz.pdf [19 November 2012].
- Schilling, J., & Logan, J. (2008). Greening the rust belt: A green infrastructure model for right sizing America's shrinking cities. *Journal of the American Planning Association*, 74 (4), 451–66.
- Scott, M. (2006). Strategic spatial planning and contested ruralities: Insights from the Republic of Ireland. *European Planning Studies*, 14 (6), 811–29.
- Shiel, K. (2010). *Planning for the shrinking city and region*. Retrieved from www.planning.org/thenewplanner/2010/spr/shrinkingcity.htm [26 November 2012].

- Shrink Smart. (2009). *Shrink Smart European policy brief no. 1. SHRINK SMART: The governance of shrinkage within a European context*. Retrieved from http://www.ufz.de/export/data/400/39032_European_Policy_Brief_Nov2009_1.pdf [19 November 2012].
- Sligo County Council. (2011). *Sligo county development plan 2011–2017 (Volume 1)*. Retrieved from www.sligococo.ie/cdp/ [19 November 2012].
- Walsh, C. (2012). Spatial planning and territorial governance: Managing urban development in a rapid growth context. *Urban Research & Practice*, 5 (1), 44–61.
- Walsh, C., & Allin, S. (2012). Strategic spatial planning: Responding to diverse territorial development challenges: An inductive-comparative approach. *International Planning Studies*, 17 (4), 377–95.
- Western Development Commission. (2009). *Work in the West: The Western region's employment and unemployment challenge*. Roscommon: Western Development Commission.
- Western Development Commission. (2012). *This is Ireland: Highlights from census 2011, part 1 & profile 1: Town and country overview of the Western region*. Roscommon: Western Development Commission.
- Williams, B., Hughes, B., & Cudden, J. (2012). *Demographic trends in Dublin* [Dublin City Council – Think Dublin! Research Series]. Dublin: Office of International Relations and Research, Dublin City Council.