Non Progression Among Higher Education New Entrants: A Multivariate Analysis

Dr Selina McCoy, ESRI Dr Delma Byrne, NUIM

28 October 2010

Moving to a Value-Added Approach

- Crude/overall patterns of non progression
- Doesn't take account of differences in student intake across institutions and sectors
- Need for like-for-like comparison
- Reduces risk of creating incentives for greater student selection
- Does not negatively label institutions with more diverse student intakes
- Focus is on institutional effectiveness, taking account of student intake

Two main questions:

- Which students are most likely to progress?
- Taking account of these characteristics, does the average chance of progression vary across institutions?

Student Characteristics

- Gender
- Social Class Background (Father's Position)
- Educational Attainment at Second Level
 - Leaving Certificate Points
 - Attainment in Mathematics, English and Irish
- Nationality
- Grant Recipient
- Field of Study
- Course Level (Level 6,7 & 8)
- Institution

Information we don't have

- Motivation for enrolling in HE
- Financial well-being
- Participation in part-time employment
- Academic engagement
- Views on teaching staff, educational experience
- Attendance, participation in extra-curricular activities
- Institutional supports for students

Approach

- STATA
- Takes account of clustering students in the same institution share common influences, may be more like each other
- Overall (unadjusted) differences in progression chances across institutions
- Net differences do the chances of progression vary across institutions
- Results presented in odds ratios: chances of group not progressing relative to reference group

Findings 1: Characteristics of Students Who Do Not Progress/Not Present

- Model 1: Gender, Age, Nationality, Social Class
- Model 2: Leaving Certificate Points and Receipt of Grant
- Model 3: HE Sector
- Model 4: Field of Study, NFQ Level

Non Progression and Gender



Non Progression and Social Class



Non Progression and Social Class



Non Progression and Social Class





Non Progression and LC Performance



Murris

Non Progression and Field of Study



Model 4: Gender, Age, Nationality, Class, LC Performance, Grant, Course Level

Non Progression and Sector



2. Non Progression Across Institutions

- Model 1 All Individual (named) HE Institutions (ref: UCC)
- Model 2 Gender, Age, Nationality, Class
- Model 3 LC Performance, Grant
- Model 4 Field of Study, Course Level

Non Progression Across Institutions



Non Progression Across Institutions



3. Non Progression Within Institute of Technology Sector

- Model 1: All Individual (named) IoTs (ref: Blanchardstown)
- Model 2 Gender, Age, Nationality, Class
- Model 3 LC Performance, Grant
- Model 4 Field of Study, Course Level

Level 6 & 7

Non Progression Within the IoT Sector



Non Progression Within the IoT Sector



Non Progression Within the IoT Sector

- No real gender differences
- Some age differences
- Irish students higher non progression
- Grant impact
- Some class difference (skilled manual)
- LC Performance impact of low performance, high performers do better
- Clear Field of Study patterns
 - Computer Science higher, Healthcare lower than Science, Agriculture & Veterinary students

4. Non Progression Within the University Sector

- Model 1: All Individual (named) Universities (ref: UCC)
- Model 2 Gender, Age, Nationality, Class
- Model 3 LC Performance, Grant
- Model 4 Field of Study

All Level 8

Non Progression Within the University Sector



Non Progression Within University Sector

- No gender differences
- No age differences
- No nationality difference
- No grant difference
- Some class difference (managerial v non manual)
- Clear LC Performance patterns
- Clear Field of Study patterns
 - Computer Science higher, Education & Healthcare lower than social science, law & arts students

Summary

• Which students fare well?

- LC Performance strong predictor of progression
- Maths performance particularly strong influence
- Importance of grant support, particularly for IOT students
- Strong disparities across subject areas and fields
- No gender differences
- Delayed entry not significant
- Class differences are small, and largely operate through LC performance

Summary

- Do the average chances of progression vary across institutions?
 - Wide raw differences shrink dramatically when taking account of student intake
 - Dangers of crude league tables
 - Main differences between sectors Colleges of Education and NCAD doing very well

Summary

- Need to unpack the processes underlying institutional effectiveness: what can institutions do?
 - Pre-entry guidance, informed choices
 - Academic supports in 1st year
 - Attention to particular FOS
 - Financial wellbeing
 - At risk students
 - Broader student engagement