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

- Model 1: Age, Nationality, Class
- Model 2: LC Performance & Grant
- Model 3: Sector
- Model 4: FOS, Level

Graph showing the comparison of different models with different factors affecting non-progression.
Non Progression and Social Class

Ref: semi-skilled manual

Model 1: Gender, Age, Nationality
Non Progression and Social Class

Ref: semi-skilled manual

Model 1: Gender, Age, Nationality  Model 2: LC Performance & Grant
Non Progression and Social Class

Ref: semi-skilled manual
Non Progression and LC Performance

Model 2: Gender, Age, Nationality, Class, Grant
Non Progression and LC Performance

Model 2: Gender, Age, Nationality, Class, Grant
Model 3: Sector
Model 4: FOS, Level
Non Progression and Field of Study

Ref: Social Science, Arts, Law
Non Progression and Sector

Ref: University 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

Ref: UCC
Non Progression Across Institutions

Ref: UCC

Model 1  Model 4: Gender, Age, Nationality, Class, LC Performance, Grant, FOS, Course Level
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

Ref: Blanchardstown IT
Non Progression Within the IoT Sector

Ref: Blanchardstown IT
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

Ref: UCC
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