

EDUCATIONAL MIGRATION AND NON-RETURN IN NORTHERN IRELAND

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Ronald McQuaid and
Emma Hollywood

Employment Research Institute,
Napier University, Edinburgh

Educational Migration and Non-return in Northern Ireland

**a Report Prepared for
The Equality Commission for Northern Ireland**

by

**Ronald McQuaid and Emma Hollywood
Employment Research Institute, Napier University,
Edinburgh**

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Contents

CONTENTS	4
EXECUTIVE SUMMARY	6
BACKGROUND.....	6
PATTERNS AND TRENDS OF EDUCATIONAL MIGRATION.....	7
GRADUATE NON-RETURN AND OUT-MIGRATION.....	9
KEY DRIVERS OF MIGRATION.....	10
IMPACT ON THE COMMUNITY COMPOSITION OF THE GRADUATE LABOUR MARKET.....	12
RECOMMENDATIONS.....	13
FURTHER RESEARCH.....	15
GLOSSARY OF TERMS USED	19
SECTION 1: INTRODUCTION	20
SECTION 2: PATTERNS AND TRENDS OF EDUCATIONAL MIGRATION	22
2.1 DEMOGRAPHIC BACKGROUND.....	22
2.2 HIGHER EDUCATION IN NI.....	24
2.3 EDUCATIONAL MIGRATION.....	27
2.4 COMMUNITY COMPOSITION OF EDUCATIONAL MIGRATION.....	30
2.5 CONCLUSION.....	38
SECTION 3: GRADUATE MIGRATION AND NON-RETURN OF NI DOMICILED GRADUATES	40
3.1 REVIEW OF EXISTING EVIDENCE AND DATA.....	40
3.2 CONCLUSION.....	46
SECTION 4: KEY DRIVERS OF EDUCATIONAL MIGRATION	48
4.1 PREVIOUS RESEARCH.....	48
4.2 SOCIO-ECONOMIC STATUS.....	52
4.3 MIGRATION AND SOCIAL DISADVANTAGE.....	55
4.4 HIGHER EDUCATION POLICY AND STUDENT NUMBERS.....	61
4.5 SUBJECT STUDIED.....	65
4.6 KEY DRIVERS OF GRADUATE NON-RETURN AND OUT MIGRATION.....	66
4.7 CONCLUSION.....	69
SECTION 5: IMPACT OF EDUCATIONAL MIGRATION ON COMMUNITY COMPOSITION OF THE LABOUR MARKET	70
5.1 THE COMMUNITY COMPOSITION OF THE NI WORKFORCE.....	70
5.2 THE COMMUNITY COMPOSITION OF THE GRADUATE LABOUR MARKET IN NI.....	71
5.3 IMPACT OF EDUCATIONAL MIGRATION AND NON-RETURN ON COMMUNITY..... COMPOSITION OF THE GRADUATE LABOUR MARKET.....	73
5.4 CONCLUSIONS.....	76

SECTION 6: UTILITY OF DATA, DISCUSSION AND POLICY RECOMMENDATIONS	78
6.1 OVERVIEW	78
6.2 UTILITY AND IMPROVEMENT IN DATA	81
6.3 WIDENING ACCESS	83
6.4 ATTRACTING GRADUATES	84
6.5 FURTHER RESEARCH	85
REFERENCES	90
Annex 1	93
Annex 2	94
Annex 3	98
Annex 4	103

EXECUTIVE SUMMARY

The Employment Research Institute (ERI) at Napier University, Edinburgh was commissioned by the Equality Commission for Northern Ireland (ECNI) to carry out a review of existing data and literature on the key patterns and drivers of educational migration and non-return and the impact of this on the community composition of the pool of qualified labour in Northern Ireland (NI). This report is divided into sections on: introduction/background; patterns and trends of educational migration amongst graduates and undergraduates; the non-return of graduates studying outside of NI; the key drivers of educational migration; the impact of migration on the graduate labour market in NI; and recommendations.

Background

- Previous research has demonstrated that those with a Protestant community background comprise a disproportionate amount of those leaving NI to study in Great Britain (GB). In 2005/06, 29% of NI domiciled under-graduate students migrated to GB to study, with the proportion of Protestants to Roman Catholics leaving NI being around 1.5 to 1. So 34% of Protestants leave compared to 23% of Roman Catholics and 49% of 'Others' (DENI School Leavers Survey 2005/6).

- It has been argued that the outflow of Protestants is having an impact on the community composition of the graduate labour market in NI with Protestants comprising a decreasing share of those in graduate level positions. Monitoring data from the Fair Employment and Treatment Northern Ireland Order 1998 has revealed that the proportion of Protestant applications for jobs in the public and private sector has fallen since the early 1990s. This is a cumulative process resulting largely from demographic changes in the population, but it is also a result of fewer Protestants entering HE, greater numbers of them leaving to study in GB and perhaps relatively fewer returning following graduation. This is a

process that has been ongoing for some time, at least, over the last 30 years. Although the effects of educational out-migration may be important, especially in the long term, it is only one factor influencing the community composition of graduate entry level jobs in NI.

Patterns and trends of educational migration

- ❑ The population of NI has increased in the last 30 years but with an ageing population structure. Population projections for the period 2006-20 suggest that those in the 15-24 age group are set to gradually decrease, indicating that there will be a decline in the numbers of young people available to enter into Higher Education (HE). In contrast to the net-population loss of the previous 30 years, NI is now a net importer of population, in part related to a relatively buoyant economy and in-migration following EU enlargement. However, it should be noted that there continues to be a net loss of those in the 18-24 age group.

- ❑ Enrolments in HE in NI have been steadily increasing. The majority of students are NI domiciles, with relatively few educational in-migrants from GB. NI only has two major Higher Education Institutions (HEIs) and the numbers of students studying in HE institutions in NI is very small compared to the number of students domiciled in NI. Around 71% of NI students actually study in NI (based upon Higher Education Statistics Agency figures).

- ❑ In NI HEIs, Roman Catholics make up 60% of students, although this number has remained static for a number of years and many students do not declare their religion.

- ❑ Around 29% of students leave NI to study in GB, particularly to universities in northwest and northeast England, although there has been a slight

decline in flows since 2001. Scotland is relatively significant as a destination for NI students, despite its size. This may be due to its geographical proximity and cultural links. Although geographically close, the Republic of Ireland attracts less than 2% of NI domiciled students.

- ❑ The total numbers of school leavers from Protestant and Roman Catholic communities leaving to study in GB are broadly similar, but proportionately many more Protestants out-migrate. There are no significant differences in educational migration by gender, although girls are slightly more likely than boys to leave to study in GB.

- ❑ Figures on educational attainment by community background for school leavers show that those from the Roman Catholic community are likely to have a greater number of 'A' levels than those from the Protestant community and are also more likely to progress on to HE. There is also a strong gender dimension with girls out performing boys in terms of educational attainment and progression to HE. In particular, it is girls from Roman Catholic backgrounds that progress into HE in the greatest proportions. The implications for graduate jobs of the marked differences between genders, within each community, need careful consideration.

- ❑ In 2005/6 more Roman Catholic (40%) than Protestant (34%) students progressed onto Higher Education. By contrast more Protestant pupils went to Further Education; 32% compared to 24%. For all school leavers, regardless of community background, a significantly higher proportion of girls (44%) went to HE than boys (31%).

- ❑ School attainment is likely to be influenced by the socio-economic background of parents, and other factors. Hence, the current 'A' level results and progression to HE are likely to have been partly influenced by selective educational out-migration and non-return. For example, if high

achieving Protestants leave NI and do not return, then their children will be born elsewhere, so the achievement of Protestants may fall, as typically, children of high academic achievers are more likely to be advantaged and achieve more academically than the children of those with low or no academic qualifications. Of course many other factors are at play.

Graduate non-return and out-migration

- ❑ A lack of monitoring data on religion from HESA and UCAS means that it is difficult to identify the religious (or community background) composition of graduates and their destinations. Consequently it is difficult to quantify the impact of both graduate migration and non-return by community background.

- ❑ Following graduation, most students in the UK tend to remain in the region of their HE institution. For NI domiciled students, regardless of university attended, 81% are located in NI six months following graduation. While care must be taken for consistency of data, HESA data indicate that 29% of NI domiciled undergraduate students are in GB, while six months after graduation some 19% are in GB; this suggests that a net 10% of NI domiciles return to NI following graduation.

- ❑ However, further research is needed to determine the community background of these graduates and the relative rates of return migration for each community. Should the return rate for each community be the same, then overall, educational out-migration and return would have a disproportionate effect on the Protestant community, potentially reducing the number of Protestants available for graduate jobs.

- ❑ Survey evidence suggests that it is those graduates with the highest and lowest degrees that are the most likely to leave NI. It may be that the

better qualified wish to capitalise on their degree and seek more highly paid positions in GB, especially as graduate earnings in NI are lower than the rest of the UK. Correspondingly, those who are most poorly qualified may have been unable to secure employment in NI.

Key drivers of migration

- ❑ Previous research has indicated that middle class Protestant students are more likely to migrate to GB. Our research also indicates that those from higher social classes tend to be those that are most likely to migrate and in the case of the Protestant community there is greater out migration of middle class students. Research by the Department of Work and Pensions (DWP) concluded that middle class families have been better able to take advantage of increasing educational opportunities; and that working class children and families' decision making is affected by a range of factors such as risk aversion, which make them more conservative in the choices that they make.

- ❑ Geographical analysis, at the Local Government District and Ward levels, shows that students living in more affluent areas (as measured by the index of multiple deprivation) were more likely to go onto HE and also to migrate to GB for education. The position was the reverse for Further Education, with those in less affluent areas slightly more likely to go to FE than those in more affluent areas.

- ❑ After taking the level of deprivation within an area into consideration, there was a negative correlation between educational migration and the proportion of Roman Catholics in the population (i.e. areas with more Protestants had higher migration levels).

- ❑ Changes to student funding introduced in 2006 are likely to have an impact on student migration behaviour. The changes will particularly affect those from lower socio-economic groups as those from higher socio-economic groups may not be able to afford to leave NI to study in GB, which will put greater pressure on the already limited student places in NI. This may lead to more competition for places locally which will disadvantage those from lower socio-economic groups who traditionally would have remained in NI to study. Those from lower income groups may also increasingly seek to stay in NI as it may be cheaper to stay at home while studying, but fewer may be able to do so, or may not continue to HE.

- ❑ Educational policy in NI can be seen to have had an impact on educational migration. In particular the Maximum Aggregate Student Number (MASN) appears to contribute to out-migration due to the cap on the number of HE places in NI. The MASN is likely to have led to asking grades at NI institutions being higher than comparable institutions in GB, particularly in the case of the University of Ulster. Although evidence suggests that the majority of students that leave NI to study in GB do so to accept their first choice on their UCAS application, it may be that the MASN reduces the numbers of other students who would otherwise study in NI. In particular there may be three main effects: firstly, students with poor 'A' levels do not apply to NI HEIs and so leave to study in GB (so called 'reluctant leavers'); secondly, school leavers, especially from disadvantaged backgrounds, do not go to HE at all, as they perceive that they would not be able to secure a place in NI and furthermore could not afford the costs associated with studying away from home in GB; and thirdly, students might come from other parts of GB if there were more places available.

- ❑ The recent increase of the MASN by around 5,000 is likely to have contributed to the increased number of students remaining in NI to study. It may also have had a positive effect on increasing the numbers of students

from lower socio-economic groups or areas to enter HE. It is less clear what the implication of increasing the MASN has had on the community composition of NI HEIs and on the composition of NI domiciled graduates. However, a significant increase in the level of GB students coming to NI would almost certainly have an effect on the community composition of HEIs and subsequently on the labour market.

- ❑ There is little recent research with regards to the extent that 'chill factors' have had an impact on the community composition of either of the two Northern Ireland HE institutes. That which exists (for example, Osborne 2006) suggests that "where pupils see discrimination existing it is in terms of class differences as opposed to different religious backgrounds".

- ❑ Students remaining in NI are more likely to study Social Studies, Business and Science. Those that leave to study in GB are more likely to study Medicine, Subjects Allied to Medicine or combined degrees. The slightly more limited choice of degrees in NI is unlikely to explain a large part of the choice to study in GB, with factors such as the perceived quality of courses, universities and life style likely being more significant.

Impact on the community composition of the graduate labour market

- ❑ In general, there is a lack of suitable available data on religion/community background of graduates in that the review of existing literature failed to provide adequate evidence on the likely impact of graduate non-return on the community composition of the graduate labour market in NI.

- ❑ It was thus not possible to consider the extent to which graduate migration and non-return contributed to patterns evident within the NI monitored workforce. If we consider the community composition of graduate level

jobs using SOC 1, 2 and 3 as a proxy for jobs that normally require a degree¹, the following trends are apparent:

- Analysis of these three groups showed that in the Public Sector Protestants account for the greatest proportion of the workforce but with the increases between 2004 and 2006 being primarily from the Roman Catholic community. This is a pattern that is, in the whole, reflected across all sub-sectors of the Public Sector and for applications and appointments to the Public Sector.
- For the private sector, where Protestant employees account for the greatest proportion, Roman Catholics have also had an increasing share of the workforce, although not to the same extent as in the Public Sector.
- The changing patterns noted above serve to reinforce the need to better understand labour market dynamics which include but are not limited to educational migration - for example educational attainment; subject choice and changing population demographics all serve to influence current and future labour market trends.

Recommendations

- *Improvements in data collection.* Although the coverage of UCAS and HESA datasets are extensive, a number of modifications would enable greater analysis of educational migration for NI. In particular the inclusion of a question on religious background would be beneficial. The linking of datasets from UCAS and HESA is likely to provide further detail on educational migration. Although not available at present, it would be useful to trace NI domiciles from school to first graduate destination, perhaps with schools providing a proxy for community background. Analysis of the HESA longitudinal data on graduate leavers will, in the future, provide information on the longer term destinations of NI domiciled graduates

¹ Monitoring returns do not record level of education. Caution should be used when interpreting data when using SOC groupings as a proxy, as some graduate level jobs may be SOC 4 or under and SOC1-3 jobs are attainable with experience without a degree. Monitoring returns are also not disaggregated by age, therefore the impact of the younger age profile of the Roman Catholic community cannot be assessed.

(wherever they studied) and graduates from NI HEIs. The value of this and similar data will be limited without comprehensive demographic or Section 75 monitoring information and it is recommended that this is included. Additional information from the monitoring returns would provide a greater insight on any changes in the monitored workforce. Working with employers to collect further data on the characteristics of graduate appointees (for example, community background; highest qualification; University attended; previous employment, etc.) could provide a greater insight into any changes in the monitored workforce. Of particular relevance would be details of the qualifications and age structure of the workforce.

- ❑ *Widening access.* Widening access, in particular for boys and from the less affluent Protestant communities where there is an under-representation in the numbers progressing to HE, would increase numbers proceeding to HE who otherwise may not have considered this as an option. Any initiative aimed at widening access would need to be based on equality and thus not exclude individuals from either community.

- ❑ *Attracting Graduates.* Most regions in developed countries use the presence of a large pool of well qualified graduates as a major attraction in bringing in higher value added inward investment and aiding indigenous development. It is therefore surprising that the policy in NI is not to increase the number of graduates educated in NI HEIs (both NI and GB domiciled) through the limiting impacts of the MASN. Although it is appreciated that there are issues associated with graduate underemployment in NI, this should not be seen as necessarily outweighing the benefits of attracting graduate labour market for the economy.

- ❑ As there is limited provision of HE in NI, attracting graduates from elsewhere in the UK could be seen as a policy focus. There would, of

course, need to be appropriate incentives for HE institutions in NI to attract students. There is likely to be an increased demand for skilled graduate labour in the future and if there is insufficient supply locally, graduates will need to be attracted from other areas. If more GB students were encouraged to study in NI, this may introduce greater diversity to the NI graduate labour market. It may be the case that more NI educated graduates would deter those who migrated to GB from returning after graduation or increase the number of graduates working in non-graduate jobs. However, this needs to be balanced against the potential positive effects on economic growth, with NI firms having a larger skilled labour pool, the continued fast growth in the proportion of graduates in the workforce and their better employment prospects compared to non-graduates.

- ❑ Overall there is a complex association between educational migration to GB and community background. Although community background is important, social class and levels of deprivation are also critical. Hence, more research is needed on other demographic characteristics, beyond community background, that affect HE participation, educational migration and non-return. The potential imbalance by gender is also likely to be an increasing issue in the future.

Further research

A large body of literature exists on educational migration in NI, and it is hoped that this research has made a contribution. However, it is felt that in order to fully understand educational migration and non-return in NI, further research should be carried out.

- ❑ There is room for further analysis of existing data sets. As stated above, the linking of UCAS and HESA data will provide powerful information that would link school leavers through to their first destination at graduation and give

additional insights into educational migration and non-return. The linking in of the School Leavers Survey data would make it possible to include data on community background. As part of this, the differing data from the UCAS, HESA and also the School Leaver Surveys, should be 'reconciled' especially in terms of their figures on migration and community and social backgrounds etc, with each based upon differing measures and objectives. It could be possible to include more detailed community background information in their collect, but the costs of this would need to be carefully considered.

- ❑ There is limited evidence on the actual migration patterns of NI students studying in GB (or elsewhere) in terms of their short- and long-term return to NI. It would be useful to research the intentions of existing NI domiciled HE students in GB concerning the motives for, and possible timing of, their return or non-return to NI, building upon the earlier research and achieving a larger sample size. However, as there may be a difference between their views and their actual behaviour, evidence is needed on the actual return rates to NI over different periods and also how long students who return to NI actually remain in NI. For example, students may only return home temporarily until they find a permanent job, elsewhere. This could be done through greater analysis of the HESA database combined with UCAS and the SLS to estimate community background and possibly e-surveys of GB (and NI) based students. It would also be useful to identify how representative the HESA data are on the location of destination of students studying in GB and NI.

- ❑ Although a large body of survey evidence has been gathered on school leavers' attitudes to HE and FE, there is less qualitative, and quantitative, information on the drivers, motivations and experiences of NI domiciled students once they are in HE institutions and importantly, once they graduate. For example: how do NI graduates working in GB feel about their experience in the labour market and would they consider returning; what have been the experiences of return migrants to NI; and what are the motivations, experiences and perceptions of those that do not return.

- ❑ Specific research should also consider the extremely high rate (nearly half) of educational out-migration by those stating 'Other' as community background. This should include: to what degree could these people be perceived as belonging to one of the two main community backgrounds; or are they from other ethnic minority communities entirely?

- ❑ Futuretrack follows applicants to HE for six years from the time they apply to HE. There may be scope in the NI sample to include questions on their migration intentions following graduation, for NI domiciles studying in NI and in GB. It would also be informative to include a retrospective question on their decision to migrate for those NI domiciles studying in GB. This information would be of particular use if it was included alongside questions on social class and community background.

- ❑ Further work could also be carried out on the links between deprivation, gender, low achievement at school and access to HE (which may include consideration of early childhood experiences that may influence later achievement).

- ❑ Further research is needed to fully assess the impact of capping student numbers on participation in HEIs by community background, the graduate labour market and economic development.

- ❑ There is a need for greater analysis of the community composition of the labour pool available for graduate jobs (including foreign migrants who may have graduated abroad) and the links between this and entry into graduate level jobs.

- ❑ The community composition of the graduate labour market should be analysed in a dynamic sense rather than purely a static one. In particular the impact of current figures and recent trends on the composition should be projected to determine predicted characteristics of the workforce, such as community background, gender and social class, in 10-20 years time, rather than just in the next few years.

- ❑ Finally, as discussed above there needs to be more analysis of the different characteristics within and between each community, in terms of HE attendance, educational migration and return/non-return and barriers to entry.

GLOSSARY OF TERMS USED

DELNI	Department of Education and Learning Northern Ireland
DETINI	Department of Enterprise Trade and Investment
DLHE	Destinations of Leavers from Higher Education
ECNI	Equality Commission for Northern Ireland
FE	Further Education
GB	Great Britain
HE	Higher Education
HEI	Higher Education Institution
HESA	Higher Education Statistics Agency
LFS	Labour Force Survey
LGD	Local Government District
MASN	Maximum Aggregate Student Number
NI	Northern Ireland
NINIS	Northern Ireland Neighbourhood Information Service
OFMDFM	Office of the First Minister and Deputy First Minister
QUB	Queens University Belfast
ROI	Republic of Ireland
SLS	School Leavers Survey
UCAS	Universities and Colleges Admissions Service
UK	United Kingdom
UU	University of Ulster

SECTION 1: INTRODUCTION

The Employment Research Institute (ERI) at Napier University, Edinburgh was commissioned by the Equality Commission for Northern Ireland (ECNI) to carry out research to examine the impact of educational migration and non-return on community composition and skills in Northern Ireland. Legislation under the Fair Employment and Treatment (Northern Ireland) Order 1998 requires that employers monitor the religious composition of the workforce. The main aim of this research is to understand the key patterns and drivers of educational migration and non-return and the impact of this on the community composition of the pool of qualified labour available to employers in Northern Ireland.

Previous useful research has demonstrated that Protestants comprise a disproportionate proportion of those leaving NI to study in GB, with recent estimates suggesting that the proportion of Protestants to Roman Catholics leaving NI is 1.5 to 1. It has been argued that this is having an impact on the community composition of the graduate labour market in NI with Protestants comprising a decreasing share of those in graduate level positions. Monitoring data from Monitoring Report 17: A Profile of the Northern Ireland Workforce (ECNI 2007) has revealed that the proportion of Protestant applications in the public and private sector has fallen since the early 1990s. This is a result of a cumulative set of processes including changing demographics in NI and the consequence of relatively more Roman Catholics entering HE, varying rates of entry to HE for each community, relatively greater numbers of Protestants leaving to study in GB and relatively fewer returning following graduation. In other words the size of the pool of potential graduates from each community is changing and their propensity to enter HE generally and HE in NI specifically also varies. These factors together are seen as having an impact on the composition of the labour market. This is a process that has been ongoing for sometime and reflects the differential educational out-migration of Protestants for some 30 years. The relative weight of these factors is not estimated in this report.

The principal research methods employed in this study are a review of the literature relating to educational migration and non-return and the analysis of a number of secondary data sources. The principle datasets used in this research include those from UCAS and HESA, who are the major providers of data on HE for the UK. Data on community background, or religion, is only routinely collected in NI, and for this we have drawn on the School Leavers Survey and Monitoring Returns. The variables available from UCAS, HESA and SLS are outlined in Annex 1. Additionally, we have used data from NINIS (Northern Ireland Neighbourhood Information Service) on deprivation, community composition and social class.

The remainder of this report outlines the findings of the research. The report is structured in five sections, following each of a series of agreed research objectives, as follows:

- Section Two examines the patterns and trends associated with educational migration
- Section Three examines the patterns of non-return by focusing on the migration of NI graduates
- Section Four seeks to identify the key drivers of educational migration and non-return
- Section Five outlines the impact of educational migration and non-return on the community composition of the graduate labour market
- Section Six considers the utility of existing data sets and provides a discussion along with key policy recommendations.

SECTION 2: PATTERNS AND TRENDS OF EDUCATIONAL MIGRATION

This section outlines some of the socio-demographic trends associated with participation in Higher Education (HE) in NI and educational migration. It outlines some contextual demographic background for NI; participation in HE in NI; and the migration of NI domiciled students and their community background.

2.1 Demographic Background

Although the focus of this report is on educational migration from NI, we will firstly provide a brief demographic context for the data presented below. The most recent figures indicate that the overall population of NI is increasing - the estimated population of Northern Ireland at 30 June 2006 was 1,724,400, compared to 1,523,500 in mid-1975 (NISRA, 2007). Hence, over this thirty-year period the population is estimated to have risen by 200,900 people or 13.2%. Despite these increases, the age structure of Northern Ireland's population continues to get older due to sustained low levels of fertility and increasing life expectancy.

Population projections for NI show that the population is set to increase by 70,000, or 4%, in the next five years (NISRA, 2007) due to a combination of natural growth and in-migration. However, of interest to this report is the predicted number of young people who will form the main pool of potential entrants into HE. Population projections indicate that between 2006 and 2011 there will be a decrease of 1% in the number of those aged between 15 and 24, and in the next ten years (2006-2016) this age group is expected to decrease by 7% (and to continue to fall until after 2020)². This will mean that there potentially will be a decline in the numbers of young people available to enter HE and the graduate labour market in NI.

² NISRA website, April 2008, Population Projections <http://www.nisra.gov.uk/demography/default.asp20.htm>

Migration has played an important part in the demographic profile of NI. During the 1970s and 1980s, NI experienced consistently large net population loss due to out-migration, approaching 10,000 people per year. Clearly the impact of “The Troubles” is significant here. In the year to mid-2006 there was a population gain for Northern Ireland of 9,900 people due to civilian migration - this was the highest level of net in-migration ever recorded in Northern Ireland (NISRA, 2007). The gross number of people estimated to have come to NI, including return NI migrants, was 30,500 and 20,600 were estimated to have left. This is a marked increase on previous years and in is part related to the enlargement of the European Union in May 2004 and the relatively buoyant economy (41% of in-migrants had GB as their last residence, 6% the Republic of Ireland and 53% elsewhere, including 18% from Poland). It is interesting to note that when the migration figures are broken down by age group, it is only in the 18-24 years age groups (including many students) that NI is losing people (NISRA, 2006). This demonstrates that the out-migration of young people remains significant for the NI population overall, with associated implications for the community composition of the workforce.

Also of particular significance are the different age profiles of the Protestant and Roman Catholic communities. The proportion of Roman Catholics in the NI adult population has increased over the period 1990-2005. The Protestant population has an older age profile and accounts for more than six out of ten of those aged 60 and over (OFMDFM, 2007). This may be linked to past differential out-migration (including higher levels of Protestant educational migration) and differential rates of fertility between the two communities. Younger age groups tend to be more evenly distributed or have higher numbers of Roman Catholics. In 1990 54% of the population of working age was Protestant, 41% Roman Catholic and 6% other / non-determined. In 2005 corresponding figures were 50%, 42% and 8% (OFMDFM, 2007).

2.2 Higher Education in NI

The numbers of enrolments at NI HEIs have been steadily rising over recent years. In 2005/6 the total number of enrolments on HE courses at NI institutions was 71,111, an increase of 2% since 2003/4 (DELNI, 2007). Of the first year full-time undergraduate enrolments on HE courses in NI, 91% were NI domiciled students.

Northern Ireland has 3.6% of UK students accepted by HE institutions through UCAS and also 3.5% of the UK population aged 15-19 (2001 Census). Yet, NI is statistically a very small destination in the UK Higher Education context, as Table 2.1 illustrates, accounting for only 2.2% of accepted applicants in 2006.

Moreover, Northern Ireland stands out with the largest imbalance between the number of NI students accepted and the number of places in NI HE institutions, indicating that one would expect far greater numbers of students to be accepted to NI HE institutions than actually occurs (Table 2.2). The only other exceptional region in this regard is Eastern England; however this is close to London with its large over-representation of accepted applicants, so students can relatively easily commute to London.³ In contrast, Yorkshire and Humberside have around 1.4 times as many students accepted to study at local HEIs, than there are local domicile students. The NI position may be accounted for by there being only two major HE institutions: University of Ulster (UU) and Queens University Belfast (QUB), although degree courses are available at Stranmillis and St Mary's University College.

Table 2.3 outlines the regional destinations of undergraduates by their region of domicile. The table illustrates that 71% of NI domiciled students choose to remain in NI for their undergraduate study; this figure is far higher than for any of the English regions, only Scotland with a figure of 94% has a higher rate of retention of students.

³ Based upon Standard Statistical Regions plus Merseyside.

Implications for NI may include: fewer graduates available for the local economy; ‘involuntary’ out-migration of graduates, many of whom will not return; lower levels of students from elsewhere coming to NI (some of whom may stay after graduation); and possible differential out-migration, for example, by gender, community background and social class. Without knowing the community background of those returning, it is difficult to determine the overall implications for the community composition of the graduate workforce.

Table 2.1: Accepted applicants by region of institution

HEI region	2002	2003	2004	2005	2006
North East	4.9%	5.0%	4.9%	4.9%	4.8%
North West	8.5%	8.8%	8.7%	9.0%	9.2%
Yorks & The Humber	11.3%	11.4%	10.6%	10.5%	10.6%
Merseyside	2.9%	3.1%	3.0%	3.0%	3.1%
East Midlands	7.7%	7.7%	8.0%	8.0%	7.8%
West Midlands	8.0%	7.9%	8.2%	8.2%	7.6%
Eastern	4.7%	4.9%	5.0%	4.9%	4.9%
Greater London	15.4%	14.7%	15.0%	15.4%	15.6%
South East	11.5%	11.5%	11.4%	11.5%	11.6%
South West	7.8%	7.7%	7.8%	8.0%	7.9%
Wales	5.6%	5.5%	5.5%	5.3%	5.6%
Scotland	9.3%	9.5%	9.5%	8.9%	9.0%
Northern Ireland	2.4%	2.5%	2.5%	2.5%	2.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: UCAS

Table 2.2: Accepted applicants by region of institution and residence

HEI region	2006 accepted applicants by region of institution	2006 accepted applicants by residence of student	accepted applicants by region of institution per accepted applicants by residence	% of UK 15-19 year old resident (Census 2001)	2006 accepted applicants by region of institution per residents
North East	4.8%	3.8%	1.3	4.5%	1.1
North West	9.2%	9.4%	1.0	9.3%	1.0
Yorks & Humber	10.6%	7.8%	1.4	8.7%	1.2
Merseyside	3.1%	2.4%	1.3	2.6%	1.2
East Midlands	7.8%	6.4%	1.2	7.1%	1.1
West Midlands	7.6%	8.6%	0.9	9.3%	0.8
Eastern	4.9%	8.2%	0.6	8.7%	0.6
Greater London	15.6%	15.7%	1.0	11.4%	1.4
South East	11.6%	13.3%	0.9	13.2%	0.9
South West	7.9%	7.9%	1.0	8.0%	1.0
Wales	5.6%	5.0%	1.1	5.0%	1.1
Scotland	9.0%	7.8%	1.2	8.7%	1.0
Northern Ireland	2.2%	3.6%	0.6	3.5%	0.6
Total	100.0%	100%	1.0	100.0%	1.0

Sources: UCAS. http://www.ucas.com/about_us/stat_services/stats_online/data_tables/abusregresidence/abusukreg/ Census 2001 (Figures rounded).

Table 2.3 Regional Destinations of undergraduates 2005-6

Origin	North East	North West	Yorks & Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
North East	62 %	8%	14 %	4%	2%	1%	2%	2%	1%	1%	4%	0%
North West	4%	61 %	15 %	4%	4%	1%	3%	2%	2%	2%	2%	0%
Yorks & Humber	9%	13 %	52 %	10 %	4%	1%	3%	2%	2%	1%	3%	0%
East Midlands	4%	9%	18 %	41 %	9%	3%	5%	5%	3%	2%	1%	0%
West Midlands	2%	9%	8%	12 %	46 %	1%	4%	5%	6%	6%	1%	0%
East England	3%	5%	9%	14 %	6%	24 %	14 %	15 %	6%	2%	2%	0%
London	1%	3%	4%	5%	4%	6%	59 %	12 %	4%	1%	1%	0%
South East	3%	4%	5%	8%	5%	4%	15 %	37 %	13 %	4%	2%	0%
South West	2%	4%	4%	5%	6%	2%	7%	16 %	42 %	11 %	2%	0%
Wales	1%	9%	3%	3%	4%	1%	3%	5%	9%	62 %	1%	0%
Scotland	1%	1%	1%	0%	0%	0%	1%	1%	0%	0%	94 %	0%
Northern Ireland	3%	7%	1%	1%	1%	1%	1%	1%	1%	1%	11 %	71 %

Source: HESA 2006

Outlined in Table 2.4 are some of the key features of NI HE institutions. When compared to the UK as a whole NI has a smaller proportion of students studying part-time. In the case of UU only 24% study part-time compared to 33% in the UK as a whole. More students in NI use the traditional route into HE rather than alternative modes of entry and study. In terms of gender NI has a slightly higher proportion of female students. NI has a slightly higher proportion of UK domiciled students compared to the UK as the whole. However, UU stands out as having a far higher number 'other EU' domiciled students (including those from the Republic of Ireland) when compared to the rest of UK and NI.

Table 2.4: Key features of HE in NI and UK 2005/6

	Mode of study		Gender		Domicile		
	Full-time	Part-time	Female	Male	UK	Other EU	Non-EU
Total UK	67%	33%	59%	41%	91%	3%	6%
Total Northern Ireland	74%	26%	61%	39%	93%	6%	1%
The Queen's University of Belfast	69%	31%	61%	39%	95%	3%	2%
University of Ulster	76%	24%	60%	40%	91%	8%	1%

Source: HESA 2007

2.3 Educational migration

One of the key features of HE participation in NI is the out-migration of NI students to GB. During the 1970s, coinciding with the high level of civil disturbances in NI, there was a substantial increase with 40-45% being recorded as migrants (Osborne, Cormack, Reid and Williamson, 1983). These figures have now dropped back to around 30%. It is important to note that educational migration is a process that has been occurring over a long period of time and is not just a recent phenomenon. Indeed, the current community composition of the workforce is likely to be a reflection of these long-term trends rather than simply the migration flows of the previous 5-10 years. The number of HE entrants remaining in NI has increased significantly in recent years (Osborne, 2006).

Table 2.5 outlines the destinations of NI domiciled undergraduate students accepted to HEIs using data from UCAS. The table illustrates that, there has been an increase in the number remaining in NI from 8,184 in 2002 to 8,586 in 2007. Overall, between 65-68% of NI students choose to remain in NI. Of those that leave NI to study in GB there has been a slight shift in choice from Scotland to England. England has seen the largest increase as a destination from 18% of NI students in 2002 to 25% of NI students in 2007. By contrast Scotland has seen a decrease in the same period from 13% to 8%. However, despite this decline, Scotland remains a significant destination for students from NI with Osborne (2006) stating that there have been highly effective recruitment drives by Scottish institutions in NI.

Table 2.5: Destinations of accepted NI students 2002-2007

	England	Wales	Northern Ireland	Scotland
2002	18% 2171	1% 43	68% 8184	13% 1548
2003	21% 2613	1% 107	68% 8698	10% 1240
2004	22% 2833	1% 107	68% 8698	10% 1238
2005	23% 3174	1% 109	67% 9370	9% 1257
2006*	24% 2995	1% 110	65% 8049	10% 1231
2007*	25% 3239	1% 101	66% 8586	8% 1116

Source: UCAS (figures for 2007 are provisional).

*Note that in 2006 and 2007 applicants accepted to St Mary's no longer used UCAS, while the figures relating to other years include applicants accepted to St Mary's).

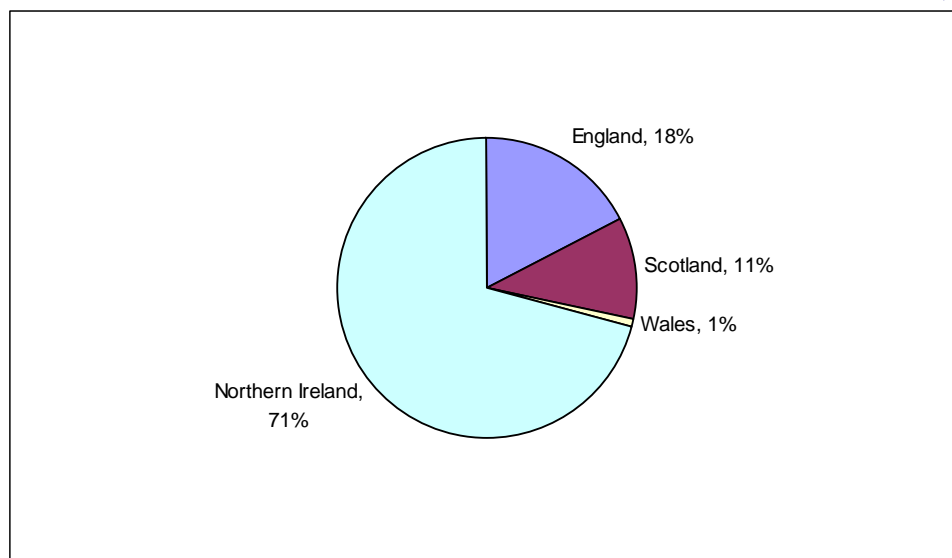
Data from HESA can also be used to examine the destinations of NI domiciled students. Figures from HESA refer to all HE students, whereas UCAS figures are only for first year student acceptances. As a consequence the HESA migration figures differ slightly from the UCAS figures. This can partly be explained by the fact that HESA figures cover a student over a longer time period of 3-4 years. In addition UCAS figures do not take account of students who do not take up their place or who subsequently drop out. Also, as standard under-graduate Honours courses last 4 years in Scotland and 3 in England and Wales, each entrant to a Scottish university, as measured through UCAS, will stay in the HESA figures for a year longer (so Scottish HESA figures would be a third larger than the English figures for the same number of students).

The HESA figures show that in terms of the destination of NI migrants there is a strong pull to Scotland and the North of England, which partly can be explained by their close geographical proximity to NI. Figure 2.1 outlines the destination of NI domiciled, first degree students for 2005/6 and shows that 29% of NI students leave to attend university in GB⁴. In terms of destinations Scotland accounts for 11% of destinations for NI domiciled students which is high considering the

⁴ UCAS *acceptance* data suggest that 24% of acceptances were to HEIs in England, 10% in Scotland and 1% in Wales. Of these 105 were for HNDs (75 in NI) and the rest for degrees.

relative size of Scotland (in terms of the numbers of institutions and students).⁵ Of the 18% that go to England, it is predominantly to the North West and North East rather than to London or the South East.

Figure 2.1: NI domiciled students enrolled on HE courses in the UK, 2005/6



Source: HESA (2005/6). Figures are rounded and may not add to 100%.

Although the Republic of Ireland (ROI) is geographically close, evidence shows that less than 2% of NI domiciled students enrol on HE courses in ROI (DELNI, 2007). The reasons for this are unclear although they are likely to be primarily due to the different systems of school qualifications in the two countries, where the ROI places different values on A levels, fees and grants issues and the reluctance of some students to study outside the UK. Table 2.6 outlines the numbers of NI domiciled first year students enrolled in HE institutions in the ROI from 2001 to 2006 and demonstrates that only small numbers go to ROI to study.

⁵ Note that UCAS figures generally refer to new students entering HE, while HESA figures include all undergraduates. So a reduction in new students studying in, say, Scotland in 2007, will take several years to fully feed through to the HESA percentage figures. Also as Scottish undergraduate degrees are generally four years compared to three in the rest of the UK, each student stays longer in Scotland, so the HESA percentage figures for all undergraduate students will be higher for Scotland than the UCAS figures.

Table 2.6: Numbers of NI domiciled first year full-time students enrolled on first degrees in ROI

	First Year Students				
	2001/02	2002/03	2003/04	2004/05	2005/06
Male	120	120	120	120	85
Female	140	140	140	135	115
Total	260	260	260	255	200

Source: Higher Education Authority

The figures from HESA and UCAS give an indication of the flows of NI domiciled students from NI to GB but do not give any indication of their community background. As previously stated, the two major providers of Higher Education data, HESA and UCAS, do not collect information on religion making it difficult to gauge the community background composition of the student population outside of NI.

Data from the Labour Force Survey show that in terms of religious composition, the proportion of the adult population who were full-time students in the period 1990-2005 has changed. In 1990, 5% of Protestants and 7% of Roman Catholics were full-time students; in 2005 5% of Protestants and 9% of Roman Catholics were full-time students (OFMDFM, 2007). In absolute numbers there has been an increase of 8,000 Protestants (27%) and 17,000 Roman Catholic (57%) full-time students.

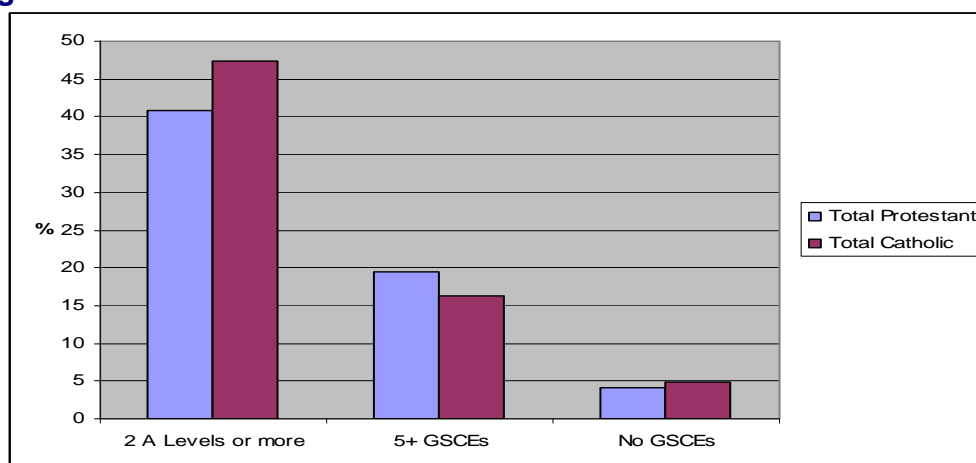
2.4 Community Composition of Educational Migration

Using data from the School Leavers Survey (SLS) 2006 it is possible to examine destinations by community composition. The Department of Education collects data annually on the highest qualification and destination of Northern Ireland grammar and secondary school leavers. In addition to the qualifications and destination data, items such as year group, sex, ethnicity, community background, free school meal entitlement, special educational needs and the pupil's home postcode are also collected.

Previous research suggests that those from Roman Catholic backgrounds tend to have better qualifications (Osborne, Smith and Hayes, 2006). Figures 2.2 – 2.4 illustrate the highest level of qualifications of school leavers by community background for 2005-6.

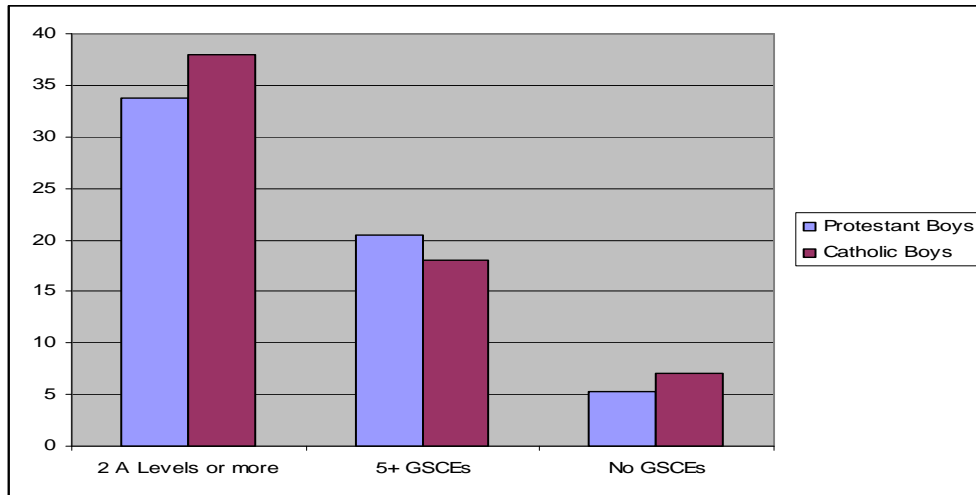
- Overall, for all school leavers in NI the proportion achieving two or more 'A' levels was 44.7%.
- Roman Catholic school leavers are more likely to have 2 or more 'A' levels on leaving school, 47%, compared to 41% of Protestants.
- A greater proportion of Protestants (20%) are likely to leave school with 5 GCSEs or more, compared to 16% for Roman Catholics.
- For boys, 38% of Roman Catholic school leavers have 2 or more 'A' levels compared to 34% of Protestant boys. It should however be noted that 7% of Roman Catholic boys leave with no GCSEs, compared to 5.3% of Protestant boys.
- Girls continue to outperform boys with 53% of girls achieving at least two 'A' levels - 57% of Roman Catholic girls and 49% of Protestant girls. Overall Roman Catholic girls leave school with the highest qualifications.

Figure 2.2: Highest qualifications of all school leavers by community background 2005/6



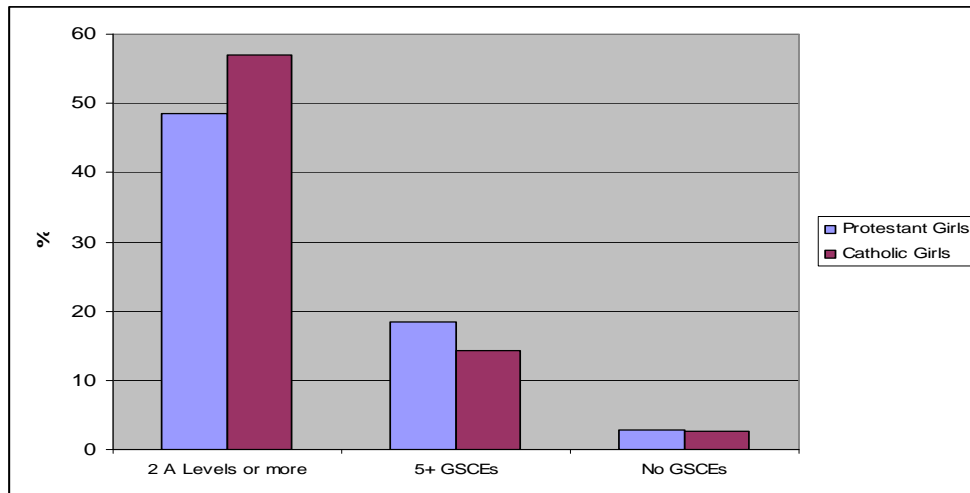
Source: School Leavers Survey, 2006
 (Please note figures do not add to 100 as not all categories of qualifications are included)

Figure 2.3: Highest qualifications of boys by community background 2005/6



Source: School Leavers Survey, 2006

Figure 2.4: Highest qualifications of girls by community background 2005/6



Source: School Leavers Survey, 2006

In terms of leavers' destinations there are also distinct differences between Roman Catholic and Protestant leavers. The destinations of all leavers, boys and girls, are illustrated in Figures 2.5 to 2.7. Key findings are that:

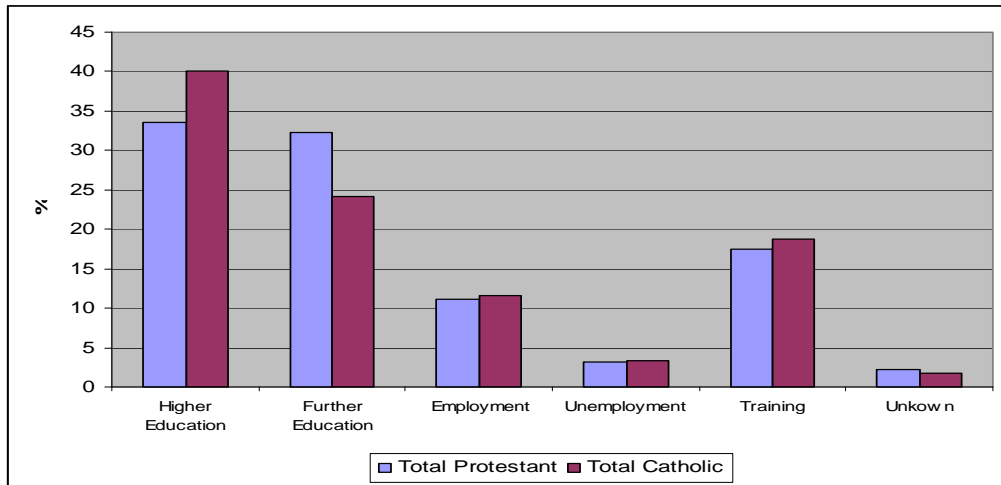
- Overall, (Figure 2.5) more Roman Catholic than Protestant students are likely to progress onto Higher Education, 40.1% compared to 33.6%. By contrast more Protestant pupils were likely to go on to Further Education; 32.2% compared to 24.4%.
- There are larger distinctions by gender. For all school leavers, regardless of community background, the proportion of girls continuing on to HE is significantly higher than that for boys at 44.3% compared to 30.9%.

- There are also distinct differences by community background for each gender. Roman Catholic boys are more likely than Protestant boys to go on to HE; 32.7% compared to 27.4%. However, a greater proportion of Protestant boys go on to Further Education (30.0% compared to 21.2%).
- Greater proportions of girls go on to HE than boys of either community background. Roman Catholic girls are more likely than Protestant girls to progress to HE (47.8% compared to 40.0%) which is also a reflection of the higher 'A' level scores achieved by Roman Catholic girls. Protestant girls are much more likely to go to HE than either Roman Catholic or Protestant boys.

These findings correspond to survey research of year 12 pupils in the Belfast Education & Library Board area. Collins, McAleavy, Adamson and Donegan (2006) found that, when asked what they planned to do on leaving school, “a greater number of Protestants than expected chose ‘None’, ‘FE only’ or ‘Both’ [FE and University], while Catholics were more likely to select University only”. Similarly, Osborne et al. (2006) found, when asking school leavers about their choices, that there were significant gender differences in attitudes to continuing in education; and significant cultural barriers facing boys from poorer Protestant communities against participating in HE. This research also highlighted the confined areas in which pupils from disadvantaged areas were prepared to travel.

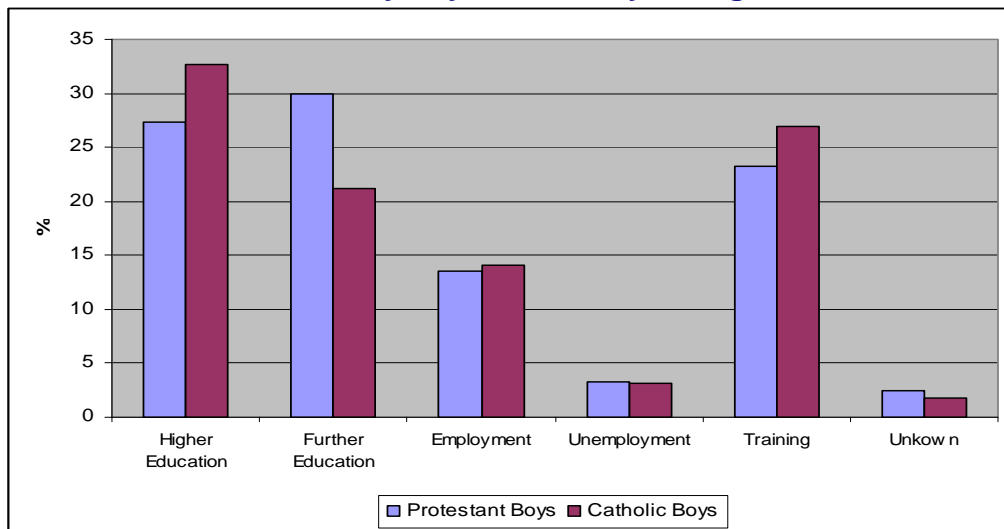
With school results linked to, among other things, the socio-economic position of a pupil’s parents, school and local community, assessment of factors that impact on the community composition of graduate entry level jobs in NI, need to consider the determinants of someone actually entering HE, (e.g. community background, gender, deprivation etc.) as well as educational migration. In addition, the marked differences between genders, within each community, need careful consideration (although we believe forthcoming research may shed some light on this).

Figure 2.5: Destinations of school leavers by community background 2005/6



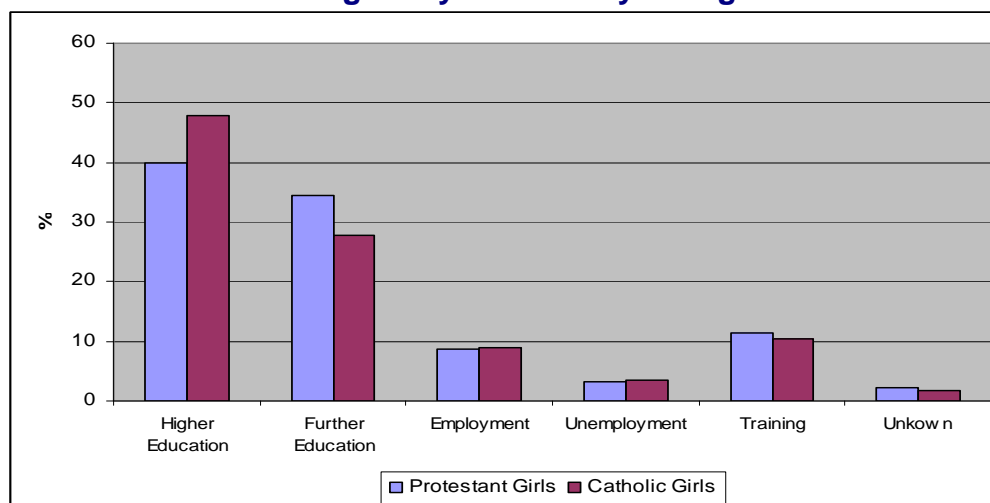
Source: School Leavers Survey 2006

Figure 2.6: Destinations of boys by community background 2005/6



Source: School Leavers Survey 2006

Figure 2.7: Destinations of girls by community background 2005/6

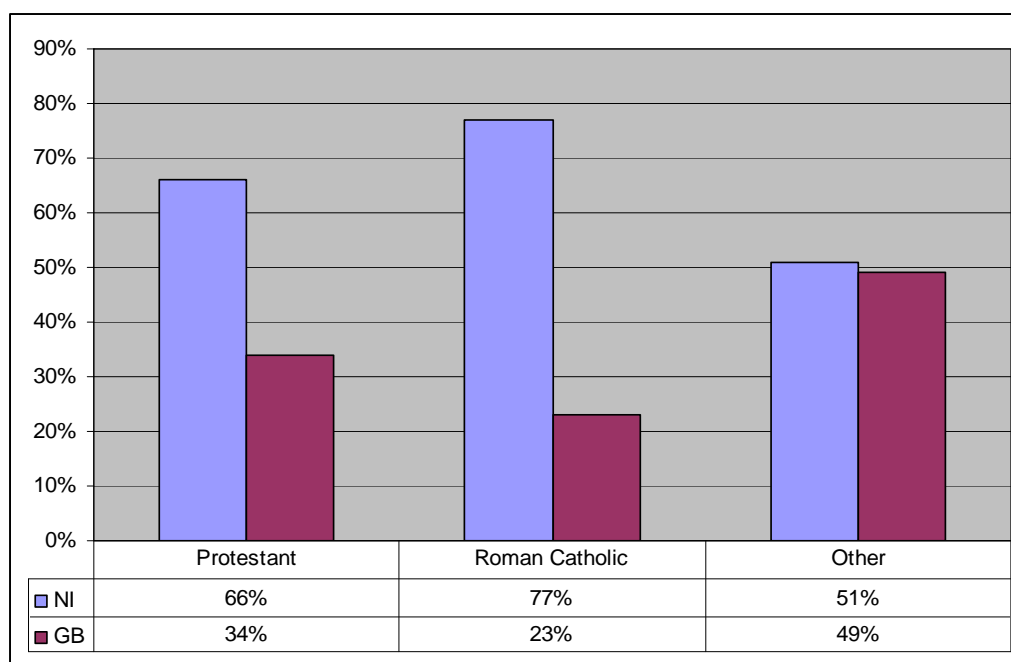


Source: School Leavers Survey 2006

The SLS also provides information on the gender, religion and destinations of school leavers to HE institutions. Data from the SLS 2006 show that a total of 9,302 left school to attend HE institutions in either NI or GB. Of this total: 42% were male and 58% female. In terms of community background 5,000 (54%) were Roman Catholic, 3,548 (38%) were Protestant and 8% (754) were 'other'⁶ (Table 2.7a). This clearly demonstrates that greater numbers of Roman Catholic school leavers progress on to HE. Numerically Roman Catholic girls (2,919) make up the largest group followed by Roman Catholic boys (2,081), then Protestant girls (2,060), and then Protestant boys (1,488). It should be noted from these figures that almost twice as many Roman Catholic girls to go on to HE as Protestant boys.

⁶ Other includes Other Christian, No religion and Non Christian.

Figure 2.8 HE destinations by community background 2005/6



In terms of the destinations of all leavers 71% (6,566) remain in NI and 29% (2,736) go to GB. Of those that leave to study in GB 44% (1217) were Protestant; 42% (1148) Catholic and 14% (371) 'other' (Figure 2.8). This indicates that of the total leaving NI to study in GB there are only 69 more Protestants leaving than Roman Catholics. However, when expressed as a proportion of the total Roman Catholic and Protestants a different pattern emerges as Table 2.7 illustrates:

- For Roman Catholics 23% (1,148) went to GB and 77% (3,852) remained in NI.
- By contrast, for Protestants 34% (1,217) went to GB and only 66% (2331) remained in NI.
- For 'Others' a much higher figure of 49% (371) went to GB. Clearly, in relative terms, the 'others' are likely to be an issue of concern for the Equality Commission NI.

In terms of gender, the differences by community background remain with Protestant girls and boys much more likely to out-migrate for education:

- For Roman Catholic boys only 21% (443) went to HE institutions in GB while 79% (1,638) remained in NI;
- For Protestant boys 34% (503) went to GB, and 66% (985) remained in NI;
- For Roman Catholic girls 24% (705) went to GB 76% (2214) remained in NI;
- While for Protestant girls 35% (714) went to GB and 65% (1346) remained in NI;
- For 'Others' 54% (193) of boys and 43% (178) of girls went to GB.

While there is a clear difference in the proportions of each community leaving to study in GB, the size of this gap appears to be narrowing in recent years. It is also notable that the 'other' group (49%) has the greatest proportion of out-flows to GB.

Table 2.7a: HE destinations by community background 2005/6

Destination	TOTAL			BOYS			GIRLS		
	P	RC	Other	P	RC	Other	P	RC	Other
NI	66%	77%	51%	66%	79%	46%	65%	76%	57%
	2331	3852	383	985	1638	166	1346	2214	217
GB	34%	23%	49%	34%	21%	54%	35%	24%	43%
	1217	1148	371	503	443	193	714	705	178
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
	3548	5000	754	1488	2081	359	2060	2919	395

Table 2.7b: HE destinations by community background (percentage by each destination) 2005/6

Destination	P	R	Other	Total
NI	35.5%	58.7%	5.8%	100%
GB	44.5%	42.0%	13.6%	100%
Total	38.1%	53.8%	8.1%	100%

Destination	BOYS			GIRLS			Total
	P	RC	Other	P	RC	Other	
NI	15.0%	24.9%	2.5%	20.5%	33.7%	3.3%	100%
GB	18.4%	16.2%	7.1%	26.1%	25.8%	6.5%	100%
Total	16.0%	22.4%	3.9%	22.1%	31.4%	4.2%	100%

Source: School Leavers Survey 2005/6. Figures rounded.

Figures on the community background of NI domiciled students at NI HE institutions show that although there was an increase of 28% between 1997/8

and 2003/4 in the numbers of full-time students, over the same time period the proportion of first year students that declared themselves as either Roman Catholic or Protestant remained static, suggesting the increase in enrolments was not biased towards either community (DELNI, 2005a). However, it should be noted that Roman Catholics make up around 59% of students at both NI HE institutions, but also make up 54% of all HE students in the SLS survey.

2.5 Conclusion

This section has outlined the trends and patterns of educational migration in NI. Demographic trends indicate that the population structure of NI is ageing and those in the 18-24 age groups will decline in number in the future. Although NI is currently a net-importer of population, figures indicated that NI continues to lose population in the 18-24 age group. Clearly educational migration contributes to this loss. It was demonstrated that around 30% of NI domiciled students leave NI to study in GB (although there has been a slight decline in numbers in recent years). However, NI is a very minor destination for students from GB, with NI domiciled students making up the substantial majority of students at NI HEIs. The demographic composition of the two communities was also shown to be important with the Protestant community having a much older population structure. This differential in population structure between the two communities will clearly have an impact on the numbers from each community progressing to HE and into the labour market.

In terms of community background it is those from Protestant communities that make up the highest proportion of students leaving to study in GB. However, those from Roman Catholic communities are more likely than those from Protestant communities to progress on to HE. Additionally, girls from both communities are more likely to progress to HE than boys. The differentials in educational achievement between the two communities is likely to have an impact on the composition of the workforce as educational under-attainment limits the extent to which people can advance in employment. If fewer Protestants are entering HE, and those that do then leave to study in GB in greater proportions, this is likely to reflect on the community composition of the

graduate workforce. The educational under attainment in the Protestant community is therefore an issue that requires additional policy focus. However, this should not be at the expense of those in the Roman Catholic community who may face similar problems entering HE.

SECTION 3: GRADUATE MIGRATION AND NON-RETURN OF NI DOMICILED GRADUATES.

This section examines the migration and non-return of NI domiciled graduates. Drawing on previous literature and destinations data from HESA it will examine the migration patterns of NI domiciles and graduates from NI HEIs.

3.1 Review of existing evidence and data

It has been argued that, of those students that leave NI to study in GB, very few return to NI following graduation and that this has an impact on the community composition of the NI graduate workforce (see Section 4.6). This can be partly explained by the disproportionate out-migration of those from a Protestant background as outlined in the previous section. Little evidence was found on the effect of community background on the likelihood of graduates returning to NI after graduation, or in the longer-term (MacGregor et al., 2003). However, it is expected that most graduates are unlikely to return to NI (other than for a short period after graduation). Purcell, Elias, Davies and Wilton (2005) suggested that half of those who had studied on the UK mainland had returned to NI for their first job and others had moved back over the subsequent seven years (compared to 81% of those attending NI institutions who were still there 7 years later). Of the 1999 cohort, a third returned to NI immediately, and a similar proportion was there four years later. This is a pattern that is not unique to NI, as research indicates that graduates have a strong tendency to remain in the region in which they graduated, although graduates can be highly geographically mobile.

Graduate migration can be seen as associated with a number of factors including location of employment opportunities, local ties and knowledge of other areas (Bond and Grundy, 2006; Faggian, McCann and Sheppard, 2006). The previous section and wider research has demonstrated that those from a Protestant background make up the majority of those that migrate to GB. Coupled with the fact that 60% of those at the two HE institutions in NI are from a Roman Catholic

background has arguably contributed to a decline in the Protestant share of the graduate labour market in NI, although wider demographic factors are also important.

There is a distinct lack of large scale data available for examining the religious composition of graduate migration both to and from NI. The main data source for examining the destination of graduates is HESA's Destinations of Leavers from Higher Education Institutions (DLHE) which records the destinations of graduates six months after graduation. This survey does not collect information on the community background (religion) of respondents, although for students at NI institutions it may be possible to determine their religion. What information is available on community composition of graduates is mainly drawn from a small number of surveys that have been undertaken. Nonetheless, it is possible to examine the flows of graduates to and from NI using HESA data.

Table 3.1 examines the destinations of NI domiciled graduates by UK region from the HESA DLHE for 2005/6, six months after graduation. This table refers to those students whose domicile is NI but does not provide a breakdown on who did or did not study in GB/NI. For NI domiciled graduates it shows that 81% are in NI six months after graduation, 7% are in Scotland, 3% are in London and 3% are in the North West. Only Scotland with 91% and London with 82% have higher rates of retention for domiciled students. Although care must be taken for consistency of data, the HESA data (as outlined in Section Two) indicate that 29% of NI students are in GB, while 6 months after graduation some 19% are in GB; this suggests that a net 10% of all NI domicile students (but nearly a third of all those studying in GB) return to NI. This may, however, be an over estimate as some of those returning to NI may be there only temporarily, while looking for a job in GB or elsewhere, as well as in NI. The table also shows that both NI and Wales are small destinations for graduates from elsewhere in GB. It should be noted that it is much easier for students to live in their own region and study in another region, or to move only a short distance to a university in another region, within England, than, for instance for a NI student to study in GB.

Table 3.1: Region of employment by domicile six months after graduation 2005/6

Domicile	North East	North West	Yorks & Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
North East	76 %	4%	7%	1%	1%	1%	4%	2%	1%	0%	2%	0%
North West	1%	78 %	5%	2%	2%	1%	5%	2%	1%	1%	1%	0%
Yorks & Humber	4%	6%	73 %	4%	2%		6%	2%	1%	1%	1%	0%
East Midlands	1%	5%	8%	61 %	5%	4%	8%	4%	2%	1%	1%	0%
West Midlands	1%	4%	3%	4%	70 %	1%	7%	3%	4%	2%	1%	0%
East England	1%	2%	3%	4%	2%	54 %	23 %	7%	3%	1%	1%	0%
London	0%	1%	1%	1%	1%	4%	82 %	8%	2%	0%	1%	0%
South East	1%	2%	2%	2%	2%	2%	22 %	61 %	5%	1%	1%	0%
South West	0%	2%	1%	2%	2%	2%	12 %	9%	66 %	3%	1%	0%
Wales	0%	5%	2%	1%	3%	1%	5%	3%	5%	73 %	0%	0%
Scotland	1%	1%	1%	1%	0%	0%	3%	1%	1%	0%	91 %	0%
Northern Ireland	1%	3%	1%	1%	0%	1%	3%	1%	1%	0%	7%	81 %

Source: HESA DLHE

Outlined in Table 3.2 are the destinations of graduates by their region of institution, six months after graduation. This table refers to all those graduating from a particular institution and not their particular domicile. When we look at the destinations of graduates by region of institution there is a stronger pattern of retention for those studying in NI. The figures show that of those students graduating from NI institutions, 96% are employed in NI six months after graduation. This is higher than the figure for either Scotland or Wales (86% and 60% respectively). This demonstrates that NI would appear to be very successful in retaining graduates, much more successful than Scotland. Of course one reason for this may be that many students in Scotland originate from elsewhere in the UK and so are fairly likely to return home, while in NI there are relatively few students from elsewhere in the UK.

These figures also show that NI, in common with Wales and Scotland, is less successful in attracting graduates from elsewhere in the UK. However, the figures do show that 2% of graduates from Scottish institutions do migrate to NI and most of these are likely to be NI students who have studied in Scotland returning home. Research evidence does suggest that for the overwhelming majority of graduates the country location of their employment is the same as that of their university (McGregor, McKee and Thanki, 2003; Faggian et al., 2006; McCann and Sheppard 2001).

Table 3.2: Region of HE Institution by destination six months after graduation, 2005/6

HEI	North East	North West	Yorks & Humber	East Midlands	West Midlands	East	London	South East	South West	Wales	Scotland	Northern Ireland
North East	58 %	6%	9%	2%	2%	2%	11 %	4%	1%	0%	2%	1%
North West	2%	67 %	6%	3%	5%	2%	6%	3%	2%	2%	1%	1%
Yorks & Humber	3%	11 %	51%	8%	4%	4%	10 %	4%	2%	1%	1%	0%
East Midlands	1%	4%	7%	39%	9%	10 %	15 %	9%	3%	1%	0%	0%
West Midlands	1%	5%	2%	5%	59%	4%	11 %	7%	4%	2%	0%	0%
East	0%	1%	1%	3%	2%	53 %	26 %	10 %	2%	1%	1%	0%
London	0%	1%	1%	1%	1%	7%	72 %	13 %	3%	0%	0%	0%
South East	1%	2%	1%	1%	2%	7%	25 %	52 %	8%	1%	0%	0%
South West	0%	1%	1%	2%	4%	4%	17 %	15 %	53 %	3%	0%	0%
Wales	0%	4%	1%	2%	6%	2%	5%	8%	11 %	60 %	0%	0%
Scotland	1%	1%	1%	1%	0%	1%	4%	2%	1%	0%	86 %	2%
Northern Ireland	0%	1%	0%	0%	0%	0%	1%	1%	0%	0%	1%	96%

Source: HESA DLHE

Table 3.3 outlines the destinations of NI graduates in terms of employment outcomes. Figures for NI are broadly comparable to other countries in the UK although graduates from NI are slightly more likely to be in full-time employment; 56% compared to 54% for the UK as a whole. Graduates from NI are also less likely to be unemployed; only 4% compared to 6% for the UK as a whole. These

positive employment outcomes may partly explain why NI has high rates of graduate retention.

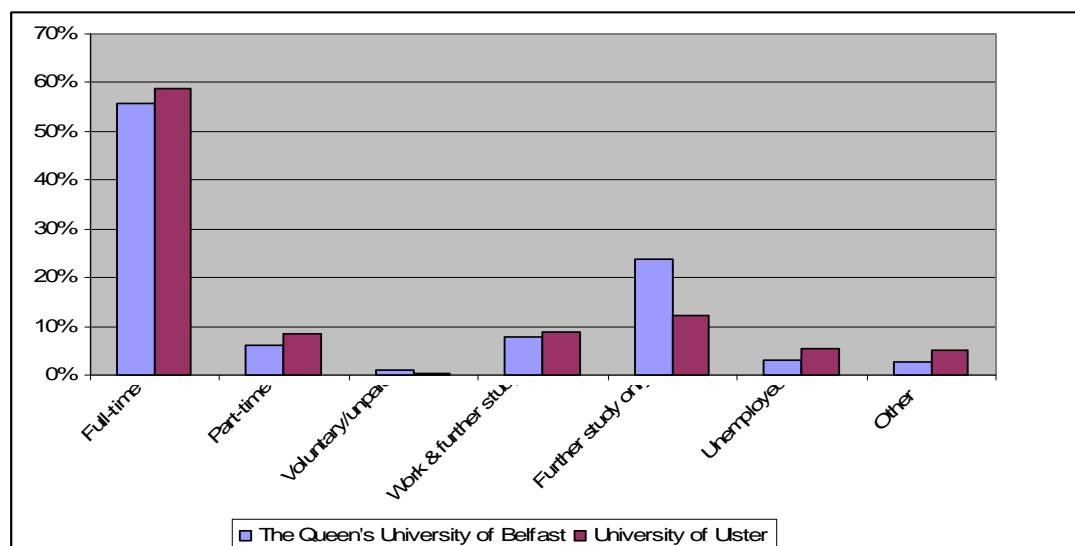
Table 3.3: Destinations of graduates by region of HE institution 2005/6

	Full-time	Part-time	Voluntary unpaid	Work & further study	Further study only	Un-employed	Other	Base
UK	54%	8%	1%	8%	16%	6%	6%	188330
England	54%	8%	1%	8%	16%	7%	6%	153525
Wales	50%	9%	1%	9%	19%	7%	6%	11045
Scotland	56%	8%	1%	8%	18%	5%	5%	18410
Northern Ireland	56%	8%	1%	9%	17%	4%	4%	5350

Source: HESA DLHE

When the destinations of graduates from the HE institutions in NI are examined it can be seen that graduates from UU are more likely to be in full-time employment, while those from QUB are more likely to be undertaking further study (Figure 3.1).

Figure 3.1: Destinations of graduates from The Queens University and University of Ulster 2005/6



Source: HESA DLHE

One of the main drawbacks of the DLHE is that it only provides a snap-shot of graduate destinations in what is a very short period of time following graduation. After graduation few graduates will have settled in their chosen career which

means that this survey does not give a true reflection of graduate destinations. In response to this issue HESA has produced the Destinations of Leavers from Higher Education Longitudinal Survey. This is a survey of graduates 3½ years after graduation conducted in 2006/7, with a sample of approximately 60,000 leavers. This survey collects information on the attitudes of graduates towards their original course, details of any other qualifications obtained (after graduation), a detailed description of their current activity and the number of jobs and periods of unemployment following graduation (see: Tipping and Taylor, 2007). When fully available it will be possible to identify NI domiciled students and students studying at NI HEIs and thus follow their progress. It may also be possible to identify the community background of NI domiciled students who studied at NI HEIs (the Purcell et. al. study is discussed below, although it should be noted that their sample is relatively small)⁷.

Preliminary findings show that in terms of migration, graduates were most likely to work in the same region they were originally living and that in total 61% of graduates in employment were working in their home domicile region (Tipping and Taylor, 2007). Most graduates from institutions in NI, England and Scotland were employed in the same country at the time of the survey; 97% of graduates from institutions in England were working in England; 87% of graduates from NI institutions were working in NI; 80% of graduates from Scottish institutions were employed in Scotland. For NI these figures show that even three years after graduation there has not been a significant loss of graduates (HESA 6 month survey showed 96% remaining in NI, Table 3.2). This indicates that the greater proportion of Roman Catholics who remain in NI HEIs may translate into greater proportions entering the graduate labour market in NI.

⁷ Purcell et al. (2005) provide a very useful study of UK graduates. However, while the sample of graduates aims to be representative of the UK, it has only a limited sample for NI domicile students *who studied in GB* (27 for the 1995 graduates and 67 for the 1999 graduates – each about 6% of total NI graduates sampled) (p. 15) and also it does not appear that both main NI universities were included. So some care should be taken of generalising too widely from these data. Further NI focused research, with a suitable sample size, would help add to their evidence.

3.2 Conclusion

This section has examined the complex issue of graduate migration and non-return. Analysis of available data has shown that there is a fairly high retention of NI domiciles and graduates from NI HEIs. Data from HESA showed that 6 months after graduation 81% of NI domiciles were still in NI, although many of these may have returned to NI on a short-term basis. Wider literature on graduate migration suggests that although graduates are more mobile than other sections of the population, they do tend to remain in the region of their HEI following graduation. Indeed, figures for graduates from NI HEIs show that 96% are still in NI 6 months after graduation. However, one of the major issues with the HESA data is that it is taken only 6 months after graduation when few graduates will have settled in their chosen career. However, figures from HESA's follow-up survey three and a half years after graduation shows that rates of retention are still high for graduates from NI HEIs.

It should be noted that even three years after graduation individuals are still in the early stages of their career and may yet choose to migrate. Investigation is also needed into any biases in the returns from the surveys. As suggested earlier, those who do not return to their domicile may be less likely to be included as they may be harder to trace.

SECTION 4: KEY DRIVERS OF EDUCATIONAL MIGRATION

This section examines in more detail what might be considered to be the key drivers of educational migration. A number of factors are thought to influence students' migration such as social class, subject studied and school grades obtained. NI differs from other parts of the UK in having a strong community background connection with migration, where disproportionate amounts of students from Protestant backgrounds leave NI to study in GB. It has been previously argued that the perception of a 'chill factor' in NI HE institutes may contribute to this. The following sub-sections explore the interaction between community background and educational migration. In order to examine this issue we have drawn from a combination of published reports and the analysis of a number of secondary datasets. The analysis of this material highlights the complex relationship that exists between the key drivers of migration and community background.

4.1 Previous research

A review of the literature on the issue of community background and educational migration indicates that Protestants are proportionately more likely than Roman Catholics to out-migrate to GB. A number of explanations have been put forward for this trend.

4.1.1 Attitudes to HE Participation

Qualitative survey evidence presented by Osborne et al. (2006) provides a useful insight into the motivations for entering HE and remaining or leaving NI for Protestant and Roman Catholic school leavers. This study carried out interviews and focus groups with year 12 and year 14 students, their teachers and community representatives. A key finding was the significant gender difference, with far more girls than boys stating that they would like to continue onto HE. This trend was true for those attending both Roman Catholic and Protestant

schools but with those girls in Protestant schools slightly less likely than those from Roman Catholic schools to intend to go on to HE. There was a similar picture for boys with those from Roman Catholic schools more likely to state an intention to progress to HE than those from Protestant schools. This was partially explained by the fact that Roman Catholic schools have better educational outcomes for those from disadvantaged backgrounds and also a higher provision of post-16 education.

These findings are similar to Collins et al. (2006), cited above, who found that Protestant males, when asked about what they intended to do on leaving school, were most likely not to consider progressing to HE and that a greater number of Protestants than expected choose neither FE or HE, FE only or Both, while Roman Catholics were more likely to select University only.

Interviews carried out with teachers and community leaders highlighted that many Protestant working class communities were still adjusting to the fact that there are no longer the same opportunities available to school leavers (in particular boys) in the manufacturing industries. In addition, there was less support from parents of Protestant boys for progression to HE. There was also more emphasis by Roman Catholic parents on the importance of higher education as a route to securing a job, related in part to the past negative experiences of Roman Catholics in the labour market.

4.1.2 Disadvantage and mobility

In relation to migration and geographical mobility Osborne et al. (2006) highlighted a number of interesting issues. Of particular interest are the very confined areas in which those from disadvantaged backgrounds were prepared to travel. The study highlighted the reluctance of many students to travel to colleges or resources in what were perceived to be in other communities. This is similar to the work carried out by Green, Shuttleworth and Lavery (2005) which showed that for young people from disadvantaged backgrounds living in Belfast,

limited mobility, lack of confidence and community background intertwined to limit opportunities.

We believe that there is on-going research by DELNI into the attitudes of school children on educational out-migration and possible return. This should prove useful in improving our understanding of educational out-migration (e.g. are prospective HE students not applying to NI HEIs as they feel they may not get in, and therefore apply to FE or HEIs in GB?). However, the findings would need to be treated with extreme caution as there is often a large difference between views, aspirations and actual behaviour in the short term. This would be expected to be even more so after many years and life changing circumstances (such as stated intentions in year 12 and year 14 to return to NI and actual behaviour after studying at an HEI outside NI).

4.1.3 Perceptions of local universities

While perceptions of local universities have had some impact on the decision to migrate (Osborne, 2005, 2006), such perceptions are unlikely to be a major issue. Osborne (2005) states that the dominance of NI students at the universities means that whole groups come from the same schools, with the same friendship patterns reflecting the segregated nature of schooling. Those that remain in NI tend to be drawn disproportionately from the Roman Catholic community. For example, the most recent figures for the religious affiliation for the two Northern Ireland universities (excluding the Open University) show that both universities have a majority of Roman Catholic students; over 60 per cent of the University of Ulster's (UU) entrants being Roman Catholic and the Queen's University, Belfast (QUB), figures are approaching 60 per cent (Osborne, 2006).

In Northern Ireland, the term 'chill factor' has developed to summarise the concept of a desire to reduce or avoid interaction with a person, place or organisation as a result of attributes which are negatively perceived. In practice the term is often associated with negative perceptions relating to community background. In area or organisational terms, location, environment (current or

historical) and/or residential / workforce composition may be seen as contributory factors (or in this context the community composition of staff / student bodies) to perceptions of 'chill'. For example those from one community may feel threatened by, and avoid studying in, an institution that is perceived to be dominated by the other community (in terms of other students, staff or the surrounding area). This may be due to a general lack of experience of mixing with those of other communities, or due to the specific circumstances in the institution.

In general terms, social attitudes survey findings (Northern Ireland Life and Times 1998-2006) relating to the population of Northern Ireland as a whole, suggest that since the 1998 Belfast Agreement community relations⁸, over the period as a whole, have been broadly stable with some potential slight improvement⁹.

There is little recent research with regards to the extent that 'chill factors' have an impact on the community composition of either of the two Northern Ireland HE institutes. In the context of the University environment, Osborne (2005) noted that the increased practice of wearing of sports tops had "in some instances...led to overt sectarian conflict". In that research Osborne posed the question as to the extent that the wearing of football tops might contribute to 'chill factor', although the question was not answered in that particular research paper. In separate work Osborne et al. (2006) concluded that their further study "did not identify the extent to which 'political' issues help determine the much larger flow of Protestants to study outside Northern Ireland and especially in Britain". However, in considering chill factors associated with education provision, their research did suggest that "where pupils see discrimination existing it is in terms

⁸ When measured in terms of preference to living and work locations. Survey available at: <http://www.ark.ac.uk/nilt/results/searchyear.html>

⁹ There has been some year on year fluctuations, most marked in 2001 and 2006. Readers should be mindful that small annual fluctuations may be as a result of routine sampling error associated with sample surveys. Noting the caveats above, figures appear to show an increase in preference to work/ live only with those of a similar religion between 1998 and 2001 with a general trend towards a decrease in preference to work/ live only with those of a similar religion between 2001 and 2006. In terms of workplace, 81% preferred to work in a mixed neighbourhood in 2000 and 76% in 2001 while the figures for 2005 and 2006 were 88% and 90%. In terms of living 70% preferred to live in a mixed neighbourhood in 2000 and 66% in 2001 compared to 79% in both 2005 and 2006. However, a study of the extent of Protestant migration from the Waterside in Derry/Londonderry suggested that since the 1998 Belfast Agreement there has been deterioration in relations between Roman Catholics and Protestants, with Roman Catholics and Protestants showing a greater preference to live apart (Shirlow, Robinson, Graham, Southern and McMullan, 2005).

of class differences as opposed to different religious backgrounds". Indeed, Osborne et al. (2006) noted that "issues which might be considered as 'politically related' were only highlighted as key factors in a minority of cases" with the limited comments made by interviewees pertaining to surrounding geographical areas as opposed to specific 'chill factors' within HE establishments.

This may well be indicative of progression since the mid 1990s when research (cited in Osborne et al., 2006) indicated that: "...in the mid-1990s the issue of the perceived sectarian nature of some aspects of local higher education provision and related matters was seen by those interviewed, including parents, to be a factor in young Protestants choosing institutions outside Northern Ireland". A distaste for the 'sectarianism of Northern Ireland' was expressed by a small number of interviewees in this study and this factor underpinned a desire to leave for study."

If evidence arises in the future that there is a 'chill factor' then it may be worth carrying out some further research on the issue.

4.2 Socio-economic status

NI performs well in terms of HE access for those from lower socio-economic groups, although people from the lower socio-economic groups continue to be underrepresented in HE in NI (DELNI, 2005a). The wider literature on educational migration suggests that there is a strong relationship between social class and migration propensities with those from higher social classes typically more likely to migrate in order to study (Cormack, Gallagher and Osborne, 1997; McGregor et al., 2003; DWP, 2007)¹⁰. Evidence suggests that NI has the lowest representation of entrants from children of those in higher managerial and professional occupations and similarly, there is a much higher representation in Northern Ireland from those 'smaller employers and own account' workers (Osborne, 2006).

¹⁰ There has been much discussion about a decrease in social mobility in the UK, partly as much of the growth in HE take up on recent decades has been from middle class socio-economic groups and those with richer parents. Also evidence suggests that working-class young people do not go to HE partly because of; a lack of role models or of people who have been to HE; are more conservative in choosing HE; and also those who do go to HE choose less prestigious institutions and subjects (DWP, 2007).

Overall for NI, figures from the 2001 Census show that Protestants were more likely than Catholics to work in Managerial & Professional occupations (NS-Sec 1 and 2) by a margin of 2.5 percentage points while, by contrast, Catholics were more likely than Protestants to be working in Routine occupations (NS-Sec 7) by a margin of 3.1 percentage points, or to be in the lowest NS-Sec category (ECNI, 2006b).

Table 4.1, shows the social class of NI domiciled students acceptances to HE institutions in the UK as recorded by UCAS¹¹. The table shows that when compared to the UK as a whole, NI student acceptances are less likely to be from SOC1 and more likely from socio-economic groups, SOC3, SOC4 and SOC7.

Table 4.1: NI domicile applicant acceptances to HE institutions in UK by social class, 2006 entry

SOC Group	Male NI	Female NI	UK Total
1. Higher managerial and professional occupations	12%	10%	16.5%
2. Lower managerial and professional occupations	23%	24%	23.1%
3. Intermediate occupations	14%	15%	10.8%
4. Small employers and own account workers	11%	11%	5.7%
5. Lower supervisory and technical occupations	5%	4%	3.5%
6. Semi-routine occupations	10%	10%	10.1%
7. Routine occupations	6%	6%	4.4%
8. Unknown	18%	19%	25.9%

Source: UCAS 2006

However, these figures show only the social class for all NI domiciled students who have entered HE in the UK and not those that moved. Special UCAS tabulations produced by Osborne et al., (2006) show that in 2004 nearly half of those students from the Higher Professional and Managerial group left NI to study in GB. In addition, they found that one quarter of those from the lowest two socio-economic groups also migrate and are likely to represent the 'reluctant' leaver (Osborne et al., 2006).

¹¹ Caution should be exercised when interpreting UCAS data on social class as around 20% of students give no information on socio-economic status.

The links between socio-economic background and education are important both in the UK as a whole and internationally. In a report for the Department for Work and Pensions Research Series, Nunn et al. (2007, p. 41) concluded that middle-class families have been better able to take advantage of increasing educational opportunities; and that working-class children and families' decision making in relation to participation in post-compulsory education is affected by a range of factors such as risk aversion, which make them more conservative in the choices that they make. They also cite evidence that different socio-economic groups use different strategies relating to education which restricts the educational aspirations and opportunities for working class children.

While this occurs throughout the UK, and elsewhere, in the NI context there may be considerable differences between, say, middle class and working class areas (of both community backgrounds). In the Protestant community there appears to be a relatively greater out-migration of middle class students, potentially reducing the average Protestant participation in HE over time, so the low current rates may partly reflect high past out-migration of higher socio-economic students whose own children may be more likely to go to HE. There may also be wider impacts of such differential out-migration (and non-return) in socio-economic-political terms.

Another factor is that people who enter HE may not complete it, so they will not have a degree. Bailey and Borooah (2007), using an econometric model of first year students entering HE from 2002-04, found that students who were less likely to drop out were: female, Protestant, generally higher social class, non-NI domicile, certain types of course. All of these factors interact, but those most likely to drop out would be: male, Roman Catholic students, from an unskilled/semi-skilled background and studying Engineering, who had a survival rate of 65.2% (i.e. around a third dropped out). This will affect the number and characteristics of graduates available to the workforce. However, this research did not take account of those who dropped out and subsequently switched to another degree course.

4.3 Migration and social disadvantage

There is a clear link between the level of disadvantage or deprivation in the area where a student lives and the likelihood of both going to a HE institute in NI and going to one in GB. Brown (2006) found that of NI domiciled students who had enrolled at HE institutions in NI and GB combined, 13% of students come from the most deprived quintile (20%) of the super output areas in NI in 2004/05, compared to 26% who come from the least deprived quintile. So people in more deprived areas were much less likely to attend a HE institute. In terms of educational migration, those from more deprived areas were also much less likely to migrate to a HE institute in GB with 11% of those enrolling in GB HE institutes from the most deprived quintile and 30% from the least deprived in 2004/05. Similarly, of students studying at a NI HE institute, 14% were from the most deprived quintile and 24% from the least deprived. The position was the reverse for Further Education, with those in more deprived areas slightly more likely to go to FE than those in less deprived areas. The association between deprivation and HE participation is common throughout the UK and elsewhere.

In order to examine this issue in more detail we have examined the relationship between migration rates, levels of deprivations and community background. The analysis here draws on data from the Multiple Deprivation Measures (MDM) for 2005 and Students enrolments on higher education courses 2006 (DELNI, 2007). The community background data were drawn from the 2001 Census of Population. Although it is likely that this social geography of NI will have changed since the last Census, this data source still remains the most comprehensive source of data on community composition in NI. The analysis was carried out at a range of spatial scales from NUTS 3, Local Government District (LGD) to electoral ward level.

The formula for the out-migration rate is as follows:

$$\text{OutMigrationRate} = 1 - \frac{\text{NumberNISStudentsStudyingInNorthernIreland04/05}}{\text{TotalEnrolmentsAtHEInstitutions04/05}}$$

In other words the out-migration rate is the percentage of all enrolled students in an area who were not studying in NI. Table 4.2 below presents the out-migration rates and community background for LGDs, arranged from the most to the least deprived district. Statistical analysis of the figures in this table show that there is a statistically significant¹² correlation between the deprivation level of a LDG and out-migration rates, and that there is also a significant negative correlation between out-migration in LGDs and the proportion of Roman Catholics in a district (i.e. areas with a higher proportion of Roman Catholics have a lower educational out-migration rate)¹³.

The same data are presented in Figure 4.1, which shows that there is a general negative correlation (-0.49) with a higher percentage of Roman Catholics in a district being associated with a lower percentage educational out-migration, although there is considerable overlap.

¹² p<0.0001, chi-square, i.e. a 0.01% significance level or 99.99% confidence. So more affluent districts have higher out-migration rates.

¹³ p<0.0001, chi-square.

Table 4.2: Out-migration and community background population of Northern Ireland districts with respect to Multiple Deprivation Measure (MDM)

Local Government District ranked from most deprived	Out-migration	Roman Catholics among whole population
Strabane	27.72%	66.19%
Belfast	25.45%	47.19%
Derry	30.13%	75.37%
Newry and Mourne	23.74%	80.64%
Moyle	32.75%	60.29%
Limavady	29.07%	56.58%
Omagh	27.84%	69.07%
Cookstown	22.57%	57.64%
Craigavon	26.86%	44.68%
Dungannon	25.41%	60.80%
Fermanagh	33.40%	58.73%
Armagh	26.37%	48.70%
Ballymoney	33.01%	31.90%
Larne	33.72%	25.19%
Down	30.61%	61.95%
Antrim	29.56%	38.65%
Lisburn	29.75%	33.35%
Coleraine	37.48%	27.21%
Magherafelt	19.37%	64.13%
Newtownabbey	28.02%	19.36%
Ballymena	27.90%	20.97%
Ards	35.87%	12.60%
Banbridge	25.91%	31.47%
Carrickfergus	31.37%	8.66%
Castlereagh	26.34%	18.26%
North Down	41.98%	12.58%

Source: Multiple Deprivation Measures, 2005 and Dept for Employment and Learning, 2006

Figure 4.1: Percentage of Roman Catholics versus educational out-migration rate by Northern Ireland districts

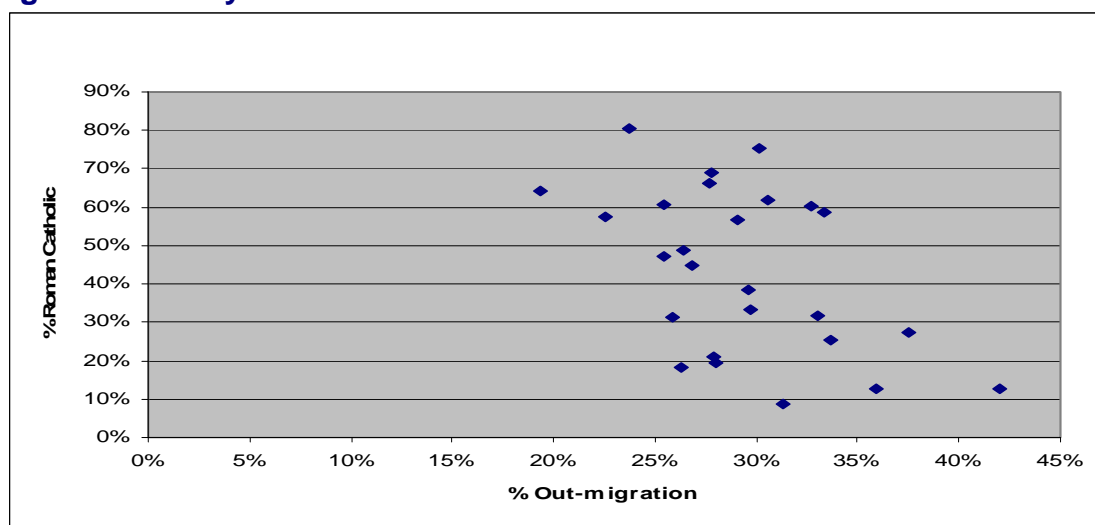


Table 4.3 outlines migration rates of first year undergraduate students with community background by NUTS 3 areas. Analysis of these data shows that there is a significant correlation¹⁴ between geographical areas and proportion of Roman Catholics within areas. When the correlations between wards, within each of these NUTS 3 areas, were considered (Table 4.4), then a negative correlation was found between out-migration rates and the proportion of Roman Catholics. For instance, in Belfast the correlation coefficient was -0.66¹⁵, indicating a decrease of out-migration rates with an increase of proportion of Roman Catholics, which was much higher than in the other regions¹⁶.

Table 4.3: Out-migration rate and proportion of Roman Catholics with respect to NUTS 3 Areas

NUTS 3 Areas	Out-migration Rate	Roman Catholics among whole population
Belfast	25.45%	47.19%
Outer Belfast	31.66%	20.79%
East of Northern Ireland	29.87%	34.41%
North of Northern Ireland	30.11%	64.53%
West and South of Northern Ireland	28.52%	59.59%

Source: See Table 4.1

Table 4.4: Correlation between out-migration rates and the proportion of Roman Catholics within each NUTS 3 Area

NUTS 3 Areas	Correlation between out-migration rate and proportion of Roman Catholics	Number of wards in the Area	p-value
Belfast	-0.66	51	<0.0001
Outer Belfast	-0.33	120	0.0002
East of Northern Ireland	-0.33	147	0.0001
North of Northern Ireland	-0.35	92	0.0001
West and South of Northern Ireland	-0.44	172	0.0001

Source: See Table 4.1

¹⁴ p<0.0001.

¹⁵ p<0.0001.

¹⁶ People in rural areas may be more likely to feel 'trapped' in their small community and feel the need to move to the 'bright lights' of larger towns (Jamieson, 2000). Those in the west of NI may do so by moving to the HEIs in the Belfast area, while those already in northeast NI may have a stronger pull to GB as they are already familiar with the Belfast area. Hence we might expect relatively less out-migration to GB from the west, other things being equal. However, these broad figures do not seem to support this idea.

In order to examine the relationship between Deprivation (MDM), out-migration and community background we grouped MDM into deciles (i.e. the most deprived 10% then the next deprived 10% etc.), as outlined in Table 4.5. Each of the deciles comprises around 58 electoral wards. The first decile (10%) represents the most deprived wards, and the tenth decile represents the least deprived wards in NI. Analysis of these data shows that there is a significant correlation¹⁷ between level of deprivation and out-migration rate, so the more deprived an area then the lower the out-migration rate.

Table 4.5: Out-migration and proportion of Roman Catholics by deciles of MDM ranks for wards

Deciles	Out-migration	Roman Catholics among whole population
1	27.84%	68.17%
2	23.35%	55.89%
3	26.82%	57.67%
4	29.29%	55.23%
5	25.77%	53.61%
6	27.64%	46.84%
7	28.23%	36.67%
8	30.35%	27.21%
9	30.64%	21.26%
10	35.56%	18.63%

^{1st} deciles represent the most deprived wards and 10th the least ones

There is a statistically significant linear correlation¹⁸ between level of deprivation and out-migration rate indicating higher out-migration rate in more affluent areas. Also there is a significant linear correlation between the level of deprivation and the proportion of Roman Catholics, indicating a lower proportion of Roman Catholics within more affluent areas.

Figure 4.2 illustrates the out-migration rates for wards by community background and levels of deprivation, where the wards are grouped into quintiles – i.e. five groups with 20% of wards each. The figure demonstrates that level of deprivation is a significant factor in the level of out-migration. The upper line shows out-migration rates for those wards in each quintile where less than 50% of the population are Roman Catholic, while the lower line shows those wards in each quintile where 50% or more of the population are Roman Catholic. The plot

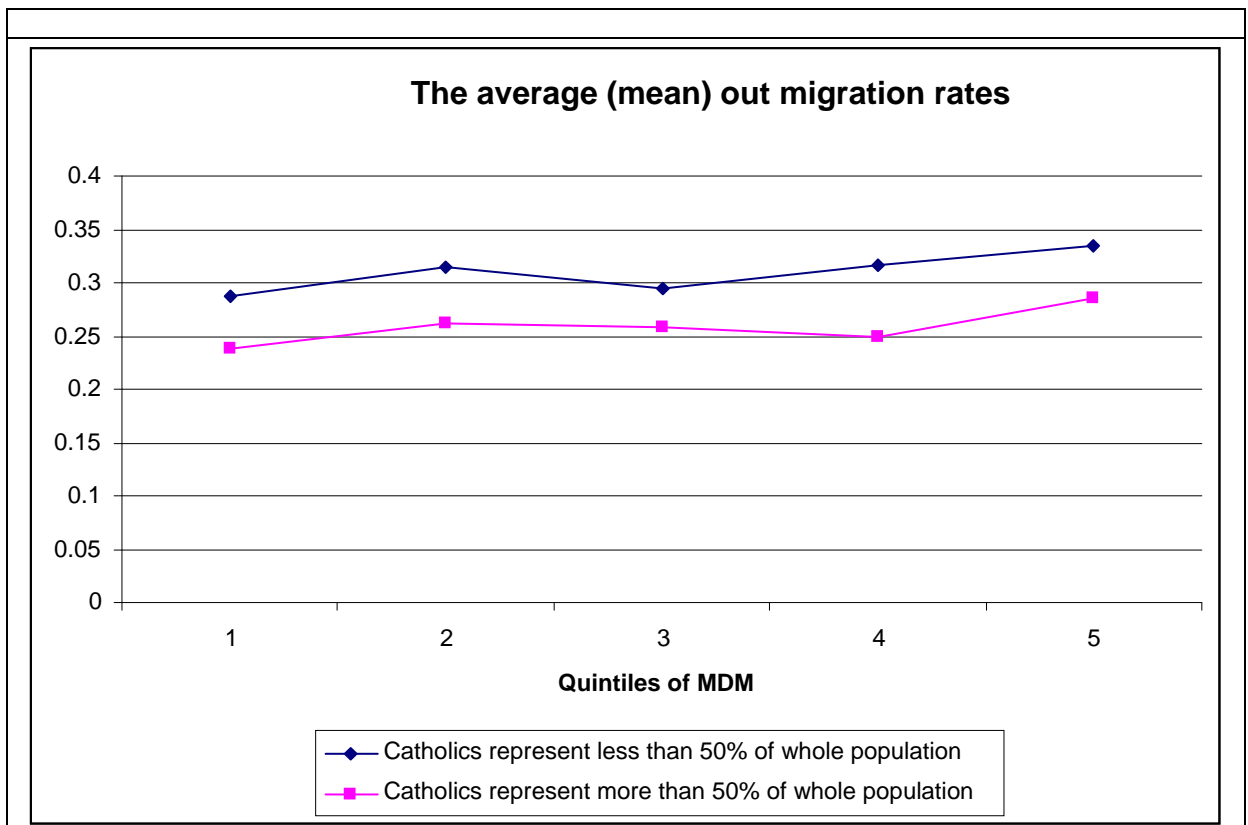
¹⁷ $p < 0.0001$, chi-square test.

¹⁸ Mantel-Haenszel chi-square test. All tests were significant at the 0.01% level ($p < 0.0001$).

shows that students are more likely to out-migrate (by about 5 percentage points) in areas where there are more Protestants than Roman Catholics, irrespective of levels of deprivation. Finally, the mobility of students increases with an increase in the area's level of affluence.

Overall, the analysis shows that migration rates are higher for areas with lower proportions of Roman Catholics. Moreover, the out-migration rate increases in areas of greater affluence (i.e. lower deprivation). The differences in out-migration patterns between those of different community backgrounds are constant irrespective of level of deprivation within an area. The second decile does have an unexpectedly high level of out-migration. This may be linked to lower educational achievement and 'reluctant out-migration' or other reasons.

Figure 4.2: The average out-migration rate for wards, considering community background populations and levels of deprivation



4.4 Higher Education policy and student numbers

Educational policy in NI can be seen to have had an impact on educational migration. In particular the Maximum Aggregate Student Number (MASN) is seen as contributing to the out-migration of students from NI to GB because of the lack of places available locally (Osborne et al., 2006; DELNI, 2005b). The MASN is likely to have led to asking grades at NI institutions being higher than comparable institutions in GB, particularly in the case of the University of Ulster. Although evidence suggests that the majority of students that leave NI to study in GB do so to accept their first choice on their UCAS application, it may be that the MASN reduces the numbers of other students who would otherwise study in NI. In particular there may be three main effects: firstly, students with poor 'A' levels do not apply to NI HEIs and so leave to study in GB (so called 'reluctant leavers'); secondly, school leavers, especially from disadvantaged backgrounds, do not go to HE at all, as they perceive that they would not be able to secure a place in NI and furthermore could not afford the costs associated with studying away from home in GB; and thirdly, students might come from other parts of GB if there were more places available. Each of these may affect the community composition of people available for graduate employment¹⁹.

The MASN was introduced in 1994 in order to contain what was seen as escalating public expenditure on student costs. This policy was enforced through the MASN which set an annual cap on the numbers of award holders which individual HE institutions could enrol for all full-time home and EU students. The cap was abolished in England in 2002/3. However there is still a limit on the numbers of places in NI and Scotland (although the level set in Scotland has allowed a net in-migration of students). The level of the cap has been lifted in NI in recent years to allow further expansion of HE places in the region, by approx 5,000 over a period of ten years, with most of the increase occurring in 1999/00 and 2000/01, but it is still far below the number of students who are domiciled in NI.

¹⁹ For instance, in general Protestants achieve lower 'A' level results and so may be more affected by the first two issues, while the proportion of GB in-coming students are less likely to be Roman Catholic than the current proportion in NI HEIs. However, further research would be necessary to determine the likely impacts in practice.

The effect of the MASN is that the demand for places at NI HE institutions outstrips supply resulting in the asking grades at the two universities being higher overall than for comparable institutions in GB. This means that many of the more modestly qualified students may not apply for places at NI institutions as they know that they would be unlikely to gain a place, or apply and do not get accepted, and thus become 'reluctant leavers' (Osborne, 2006). Other research has shown that in 2002-3 those domiciled applicants accepted to GB institutions on the basis of their preferred choice were the best qualified irrespective of gender. By contrast those accepted applicants who obtained their reserve choice of region in GB (preference was to stay in NI) had the lowest tariff score by some margin (DELNI, 2004). It was also found that the average tariff scores of those NI domiciled students whose preference was to stay at an NI institution, but who accepted a place in GB, was lower than any other preference group.

There is evidence to show that there has been an increase in the number of students able to remain in NI, which may be linked to the lifting of the cap on student numbers. An analysis of UCAS data shows that in 1998/99, 90% of accepted applicants whose firm choice was NI were accepted to a NI institution, whereas in 2002/3 this proportion increased to 96% (DELNI, 2004). Furthermore, in 1998/99 11.5% of accepted applicants left for GB when their preference would have been to stay in NI, compared to 9.2% in 2002/3.

Other research has indicated that the majority of those students that leave NI do so to accept their first choice on their UCAS application (DELNI, 2005b). It is thus unlikely that increasing places in NI would affect this group of students. Indeed, DELNI (2005b) state that "the evidence does not suggest that more places on their own would result in a significant reduction of NI domiciled students who currently study HE outside NI". However, the potential impact on community make-up of the student population of increased in-migration from GB and elsewhere could be important if the Universities were marketed well.

It is likely that raising the cap further would lower entry requirements and this would increase the numbers of NI students (and non-NI) students studying here (provided the HEIs were given suitable incentives). It is difficult to believe that no NI domiciled students who currently go to GB, or do not enter HE at all, would go to a NI HEI given the opportunity offered that raising the cap would afford. Raising the cap may also help change the mindset, in a small way, of endemic educational out-migration which affects certain parts of NI communities, increase in-migration from GB and elsewhere, and crucially may increase participation in HE from the especially disadvantaged parts of both communities. It is less likely to affect those going to GB for perceived better course or HEIs or wishing to leave NI. Other policies would be needed to deal with these issues.

It is also thought that changes to student funding brought in during 2006 are likely to have an impact on student migration behaviour. Osborne et al. (2006) argue that the changes will affect those from the higher socio-economic groups that would have traditionally left to study in GB. These students may now choose to study in NI to avoid increasing student debt; these are what Osborne (2006) terms 'reluctant stayers'. The possible effect of this would be to displace those students from lower socio-economic groups who have tended to remain in NI to study. Those from lower income groups may also increasingly seek to stay in NI as it may be cheaper to stay at home while studying, but fewer may be able to do so, as they may be 'pushed out' by those with better 'A' levels. It remains to be seen how changes in students funding will impact on those from disadvantaged groups. There may be some differential impact of these factors on community participation in NI HEIs (e.g. those receiving lower qualifications may be forced to become 'reluctant leavers', although some current out-migrants may remain in NI).

However, given that nearly all (96%) applicants whose firm choice was NI were accepted to a NI institution, the continued high out-migration to GB by Protestants, especially those with high marks, suggests that there may be other factors leading them to out-migration, possibly positive ones (e.g. choice of high

quality universities and future higher earning capacities) or negative ones. The evidence is not clear cut, for instance Purcell et al. (2005) found that: “NI graduates who studied outside NI were significantly more likely to have gained entry to their HEI as a reserve choice, or through clearing, compared to both NI-domiciled graduates who studied at NI HEIs and all other graduates from non-NI HEIs. NI graduates who studied outside NI were also less likely to have accessed their preferred course of study and significantly more likely to have preferred to study somewhere else.”

It can, however, be argued that by keeping a cap well below the number of students wanting to study in NI, a bias can be created whereby NI HE institutions may have relatively more Roman Catholic students than with a higher cap (see Annex 2). In particular, if NI HEIs were allowed to increase numbers, e.g. through a higher MASN, *and* given an incentive to attract significant numbers of students from GB, then the expansion need not lead to a lowering of entry requirements. Further, whether or not it led to lower entry standards, it would increase the shares of GB students and almost certainly lead to a more diverse make up of the student population and subsequently on the labour market. If more GB students were not attracted, then the effect of raising the cap would depend on factors such as the community background of those who now stayed in NI (rather than going to GB), or those now entering HE (rather than going to FE or not entering tertiary education). Further research would be required to estimate the likely effect of these on community make-up of the student population. Another issue is that it may be possible to argue that graduate demand and supply is currently near equilibrium and so any increase would disturb this (and lead to graduates taking non-graduate jobs etc.). This suggests that more graduates would not have an impact upon the growth of the local economy²⁰. It also may not fully take into account the rapid growth in the

²⁰ Many other localities make great effort to retain or attract graduates in order to promote economic development (e.g.: Cambridge-MIT Programme on Regional Innovation (2007, p. 16); Hall, Breheny, McQuaid and Hart (1987) who emphasise the types of labour required by High Tech firms; and Florida (2002) who emphasises the importance of tolerance in attracting creative people who then promote economic development in creative and innovative industries. Of course graduates (especially from suitable disciplines) are only one of a number of factors affecting economic development.

proportion of graduates in the workforce and their better employment prospects compared to non-graduates²¹.

4.5 Subject studied

This sub-section aims to examine the association between subject studied and migration. Although UU and QUB offer a wide range of courses, some of the more specialist courses that are available in GB are unavailable in NI (one such example is Veterinary Science). It is likely then that some students will leave NI to pursue particular courses. Students may also be drawn to courses in GB that have a particularly good reputation. Using data from UCAS we examined the subject choice for NI domiciled students who choose to leave or stay in NI by gender to ascertain if there were any differences between the two groups.

Table 4.6 shows that for male students, Social Studies, Agriculture (Veterinary Science is not available in NI) and Science are most associated with remaining in NI, whereas Medicine, Subjects Allied to Medicine and Combined degrees are most associated with leaving NI. Table 4.7 shows that for female students, subjects most associated with remaining in NI include Social Studies, Business and Architecture, and Medicine, while Subjects Allied to Medicine are more associated with leaving NI. For both males and females those studying Medicine, Subjects related to Medicine and Combined degrees are more likely to study in GB. It may be that there is a perception that the competition for Medical degrees in NI is so strong that many choose to apply to GB or there may be other reasons. Other survey research has shown that subjects NI domiciled graduates were relatively more likely to have studied in GB were Law and Combined degrees (Purcell et al., 2005).

²¹ "The number of graduates of working-age in Northern Ireland almost doubled from 83,000 in 1995 to 155,000 in 2005 and around 90% of graduates working in NI were in employment throughout the ten-year period 1995-2005, compared with 64.5% of non-graduates" (DETINI, 2005).

Table 4.6: Subject choice of NI domiciled students, UCAS acceptances, males 2006

Subject	Destination	
	Northern Ireland	GB
Medicine	53%	47%
Subject allied to medicine	55%	45%
Vet Science, agriculture and related	74%	26%
Science, engineering and technology and mathematics	68%	32%
Architecture	67%	33%
Social studies	74%	26%
Law	65%	35%
Business	65%	35%
Arts and languages	60%	40%
Combined	57%	43%
Total	64%	36%

Source: UCAS

Table 4.7: Subject choice of NI domiciled students, UCAS acceptances, females 2006

Subject	Destination	
	Northern Ireland	GB
Medicine	56%	44%
Subject allied to medicine	55%	45%
Vet Science, agriculture and related	60%	40%
Science, engineering and technology and mathematics	72%	28%
Architecture	74%	26%
Social studies	82%	18%
Law	62%	38%
Business	76%	24%
Arts and Languages	63%	37%
Combined	54%	46%
Total	66%	34%

Source: UCAS

4.6 Key drivers of graduate non-return and out migration

The previous sub-sections have focused on educational migration of undergraduates. This section will address what may be the drivers of non-return of graduates. The lack of monitoring data on religion at the UK level makes it difficult to access the numbers of graduates leaving and entering NI. However, a number of surveys have been undertaken of graduates in NI and elsewhere which can inform our understanding of graduate migration.

Just over a third (36%) of NI domiciled undergraduates gaining a full-time degree in GB had returned to NI six months after graduation (HESA data for 2003/04), while 55% remained elsewhere in the UK and 4% migrated to the Republic of Ireland (DELNI, 2005a)²². Fewer (30%) NI domiciled postgraduates who had studied in GB returned to NI, with 64% remaining in GB and 2% going to the Republic of Ireland. There was no significant gender difference among postgraduates, with 29% of males and 30% of females returning to NI after their studies. Purcell et al., (2005)²³ found that half of the 1995 cohort had returned from GB to NI for their first job and others had moved back over the subsequent seven years; although for the 1999 cohort only a third returned immediately after graduation and this figure did not change in the follow up survey four years later. So these later figures are similar to the HESA data. Hence, a reasonable estimate would appear to be that roughly around two-thirds of graduates, who studied in GB, do not return in the short-to medium terms²⁴. However, the community backgrounds of these, and the relative rates of return migration for each community, are not known²⁵.

The linking of UCAS and HESA databases and/or the inclusion of religion and community background specific questions would improve our ability to address these issues (see Recommendations in Section 6). We have used the data outlined to help improve our understanding of the issue of non-return, although this has been restricted by the lack of appropriate information on community background and insufficient sample sizes of non-returners.

Survey evidence suggests that there are a number of differences between NI graduates and those from the UK. For example, Purcell et al. (2005) found that regional identity was significantly more often indicated as being very important by NI graduates who studied in their home region, and more likely to have been

²² Based upon the 2020 full-time undergraduates and 605 post-graduates who had obtained a qualification at an HEI in GB and had returned DLHE data to HESA.

²³ It should be noted that this involved a very small sample of NI domiciles,

²⁴ This compares to around 86% of those attending NI HEIs who remained in NI (Purcell et al., 2005), some of whom would have been domiciled outside NI anyway.

²⁵ If the return rate for each community was the same, then the differential initial out-migration rates would mean that overall there would be relatively fewer Protestant graduates available and seeking jobs in NI than their share among NI domiciled graduates.

considered important by NI graduates as a whole than those from any other part of the UK. In addition, NI graduates were more likely to have obtained a taught Masters degree since 1999 than other students. It may be that graduates in NI have found it more difficult to obtain suitable graduate employment and this has led them to take higher qualifications.

Furthermore, McGregor et al. (2003) found that those who return to NI after graduating are less likely to have performed well in their degree. Further, those that attended grammar school and have come from a professional background are less likely to return (this is similar to the findings in GB of Faggian et al., 2006). It may be that many of those who return home represent those that initially wanted to study in NI and were unable to do so.

Bond et al. (2006) in their study of graduates from Edinburgh University found that graduates' migration decisions are shaped by a combination of opportunities, connections and expectations, the most important being employment opportunities perceived as being open to them but also important was their connections to geographical places. Of particular importance was that, regardless of national origin, the perception that superior graduate opportunities may be available outside Scotland represented a substantial incentive to leave the country. This highlights the need for countries such as NI and Scotland to improve their opportunities for graduates.

In terms of drivers of out-migration from NI after graduation, Purcell et al. (2005) found that graduates at the highest and lowest ends of the attainment spectrum were most likely to have migrated from NI to work in other regions with graduates who obtained a first class degree and those awarded a third were proportionately more likely to be working away from NI. It may be that the better qualified wished to capitalise on their degree and seek more highly paid positions in GB, especially as graduate earnings in NI are lower than the rest of the UK. Correspondingly, those who are most poorly qualified may have been unable to secure employment in NI and thus have been forced to look elsewhere. This

situation, in part mirrors the migration of the 'reluctant' and 'determined' leaver outlined in reference to undergraduate migration (see Osborne, 2006).

4.7 Conclusion

This section has examined the key drivers of educational migration and graduate migration from previous literature and from our own analyses. In particular we have examined the importance of HE policy, community background, social class, subject studied and social disadvantage. The analysis has demonstrated that all these factors contribute to educational migration and that it is very often the interaction of these factors that contributes to the likelihood of educational migration. For example, it was demonstrated that those from higher socio-economic groups and Protestant communities were more likely to leave NI to study in GB. However, of greater importance this section has highlighted that no single factor contributes exclusively to educational migration but rather it is the complex interaction of community background, social class and geography alongside the impact of educational policy at the UK and NI level.

SECTION 5: IMPACT OF EDUCATIONAL MIGRATION ON COMMUNITY COMPOSITION OF THE LABOUR MARKET

This section examines the impact of educational migration and non-return on the community composition of the graduate labour force in Northern Ireland, one of the key objectives of the report. For example, has the disproportionate educational migration of those from the Protestant community had an impact on the graduate labour market in NI.

The section draws on data from the Labour Force Survey (LFS) and returns from the monitored workforce²⁶. We consider the community composition of the monitored workforce as a whole and then proceed to outline some salient features of the graduate labour market. Data from returns to the monitored workforce are used to examine patterns in the religious composition of the graduate labour market.

5.1 The Community composition of the NI workforce

In 2006, the monitored full-time workforce (public and private sectors combined) contained a total of 432,906 employees. The overall composition was 53.2% Protestant, 40.2% Roman Catholic and 6.6% Non-determined. The number of Protestant full-time employees fell by 1.4% between 2005 and 2006, while the Roman Catholic count rose by 1.9%, resulting in an increased Catholic share of the monitored workforce. This is consistent with changes in monitored full-time employment over the period 1990 to 2006. During this period, overall Roman Catholic representation increased by [8.2]²⁷ percentage points, from [34.9%] in 1990 to [43.1%] in 2006, with a corresponding decline in the Protestant share. Gudgin (1998) argued that “the large disparities in employment gains... reflect

²⁶ The Fair Employment and Treatment (Northern Ireland) Order 1998 requires registered employers to collate and submit information detailing the composition of their workforce by community background, sex and occupational grouping. It covers an estimated 75% of employee jobs in NI, but does not include the self-employed, those on government training schemes, the unemployed, school teachers and those working in private sector organisations with 10 or less employees.

²⁷ Square brackets [] are used to denote the percentage composition of only those for whom a community background could be determined i.e. Protestant and Roman Catholic only. They therefore exclude those whose community background is non-determined from any calculations and so do not reflect the entire population.

differences in rates of growth of the economically active populations of the two communities". Indeed, data from the Labour Force Survey (OFMDFM, 2007) show that the number of economically active Roman Catholics of working age has increased strongly over the period 1992 to 2005 (by 51,000) whereas the number of economically active Protestants has increased only marginally (by 7,000). Further, the religious composition of those in employment closely matched that of the economically active of working age. However, in terms of economic activity among those of working age in 2005, Protestants (76%) continued to have higher economic activity rates compared to Roman Catholics (67%).

5.2 The community composition of the graduate labour market in NI

In Northern Ireland the number of graduates of working age has almost doubled from 83,000 in 1995 to 155,000 in 2005, in contrast the total working age population has only increased by 8% during this time (DETINI, 2005). The growth in graduates is partly linked to the general widening of HE in the UK in recent decades and the replacement of professional qualifications with degree based qualifications (e.g. in nursing). In considering the economically active population, the LFS (DETINI, 2005) reported that 31% of Roman Catholics and 25% of Protestants had higher level qualifications²⁸. Indeed, over the period 1993 to 2005 the percentage of Roman Catholics with higher level qualifications has increased from 17% to 31% while the increase for Protestants has been 17% to 25%.

In recent years, there may be some impact of new immigrants from the A8 new Accession countries, who generally have high (post secondary school) qualifications²⁹. As five of the A8 countries (including Poland which is by far the largest) are predominantly Roman Catholic, this could potentially increase the average level of graduates reporting a Roman Catholic background. In the year

²⁸ Higher qualifications are considered to be those above 'A'-Level.

²⁹ Jarman (2005) reported that 73% of migrant workers surveyed in NI were qualified to degree level – Migrant workers in NI, in DEL Labour Market Bulletin 2004-05 www.delni.gov.uk/lmb2004-5.pdf

2005/06 it is estimated that 5,500 people came directly from Poland, up from 2,300 the year before (NISRA, 2007, p. 8). In addition 2,100 migrants came from Lithuania, 1,100 from Slovakia and 600 each from Portugal and the Philippines. These all have predominantly Roman Catholic populations and with Poland make up near a third of in-migrants³⁰. The impacts of these changes on the graduate labour market, and on NI's university student composition, are unclear at present.

The graduate labour market differs from the rest of the labour market in NI; for example the working age employment rate for NI graduates is 89.8% compared to that of 64.5% for non-graduates (DETINI, 2005). There are some differences with the UK graduate market (although the effect of London on UK figures can be significant). Graduates in NI are much more likely to work in the Public Sector than UK graduates as a whole and less likely to be in the higher-earning sectors of ICT, Finance and Business services (Purcell et al., 2005). It has also been found that those from a Protestant background are more likely to be found in 'traditional' and 'non-graduate' occupations while Roman Catholics were more likely to be found in 'modern', 'new' and 'niche' graduate occupations³¹ (Purcell et al., 2005). It should be noted that this research found that "propensity to be employed in a 'non-graduate' occupation was not observed to vary by community of origin".

Purcell et al. (2005) also found that there were distinct gender differences in the occupational distribution of NI HEI graduates, with men more concentrated in the higher level occupational groups³². This degree of gender polarisation was not found in their UK sample. An interesting finding from the LFS is that 26% of graduates of working age in NI had a higher degree in addition to their first degree. This may reflect the difficulty of graduates in NI in finding graduate level

³⁰ Those from India (900), USA (600) and other EU Accession country (1000) populations are less easy to classify by religion, as are those from GB (many of whom may be returners to NI).

³¹ Purcell et al (2005) defined these as: Traditional – Established professions such as solicitors, doctors; Modern – management, IT, creative vocational; New – expanding occupations such as marketing & sales managers, physiotherapists; Niche – majority of incumbents are not graduates e.g. retail managers, hotel & leisure management; Non-graduate - jobs in which it is unlikely that graduates will be making full and good use of their higher education in the course of their employment.

³² It is important to consider the impact of having had children on females in particular, as they have a high rate of part-time work and career breaks and so are generally more disadvantaged than females who have not had children or men (who have or have not had children). So for equal opportunities purposes it is important to disaggregate different heterogeneous groups.

work. Indeed, McGuinness and Doyle (2005) have highlighted the issue of graduate underemployment in NI, although it appears to be similar to that in GB.

It is worth noting that as educational attainment is one of the strongest determinants of labour market outcomes (e.g. Gudgin, 1998), then the lower rate of Protestants going into HE is likely to have an impact upon the future community composition of the workforce (and past differences in the relative numbers of HE graduates is likely to have affected the community composition of current entry level graduate jobs)³³.

5.3 Impact of educational migration and non-return on community composition of the graduate labour market

The ECNI is particularly interested in how educational migration has impacted on the community composition of the graduate labour market. In general, there is a lack of suitable available data on the religion/community background of graduates in that the review of existing literature failed to provide adequate evidence on the likely impact of graduate non-return on the community composition of the graduate labour market. As stated previously, one of the major drawbacks of the HESA destinations data is that they do not collect information on the community background of graduates. It was thus not possible to consider the extent to which graduate migration and non-return contributed to patterns evident within the NI monitored workforce.

We have thus opted to examine the community composition of graduate level jobs and identify patterns, using SOC groups 1 (Managers and senior officials), 2 (Professional occupations) and 3 (Associate professional and technical) as a proxy for types of employment that normally require a degree. It is important to caveat that not all graduates will be working in these SOC groups and similarly not all in these groups will hold a degree level qualification. It should also be noted that from January 2004, employers moved from the old SOC90

³³ This would be consistent with Purcell et al. (2005) finding a greater likelihood of Roman Catholics being in the newer, growing sectors rather than in sectors where there are relatively few graduate job openings.

classification to a revised system, SOC2000. This means that for the purposes of this report there is only comparable data from 2004 to 2006. Additionally, it should be noted that the monitoring returns are not disaggregated by age and so it is not possible to identify the community background of the younger age groups in SOC 1, 2 and 3 who might reasonably be considered to be recent graduates. Age dis-aggregation would also make it possible to examine the demographic impact of the differential population between the two communities. If, as appears to be the case, the Protestant workforce is on average older than the Roman Catholic workforce, then it would be expected that relatively more of the higher positions would be held by older Protestant staff.

Table A3.1 (see Annex 3 for tables) outlines the religious composition of public sector employees in 2004-2006. For the Public Sector overall, Protestants account for the greater proportion of the workforce. However there have been increases in the period 2004-6 in the Roman Catholic share of the workforce, with the highest percentage change being for males in SOC3. It is possible to break down these figures for each of the main sectors within the public sector - Health, Education, District Councils and Civil service.

For the Health sector (Table A3.2) Protestants make up the largest proportion of employees in SOC1 (apart from male employees). Throughout the other SOC groups (with the exception of males in SOC2) Roman Catholics make up the greatest proportion of employees. When change from 2004 is examined there is in general an increase in the Roman Catholic share of employment throughout all of the top three SOC groups for those employed in the health sector for both males and females, with the biggest increase for males in SOC1³⁴. Table A3.3 outlines the composition of the Education sector (it should be noted that school teachers are excluded from monitoring). For this sector it is in SOC1 that Protestants account for by far the largest share of employment, by contrast in

³⁴ Care should be taken when comparing male and female rates as in many countries, including the UK, there are differences in part-time working, employment, salaries etc. between females who currently or previously have had childcare responsibility and males (regardless of having children) and females without children (e.g. OECD, 2007). Hence aggregating all women into a single group may sometimes be misleading.

SOC2 and SOC3 there is a more equal division between Protestants and Roman Catholics.

In general, there has been an increase in the Roman Catholic share of employment from 2004 to 2006, with the largest increase being for males in SOC1. Table A3.4 outlines the composition of District Council employees. Except for female employees in SOC3, there is a large difference between the communities throughout, with Protestant employees accounting for the majority of employment. However, there was a general increase in the Roman Catholic share of employment from 2004-6 and a corresponding decline in Protestant employment; the largest increase being for males in SOC2. Interestingly, there has been a decline in the share of female Roman Catholic Employment in SOC2.

Table A3.5 outlines the community composition of Civil Service employment, which is more complex than the other sectors. There is a stronger gender difference in addition to religious differences. For men, Protestants account for a substantial majority of employees throughout each of the top three SOC groups. Indeed, it is in this sector that Protestant males in SOC1 show a significant increase between 2004 and 2006. This appears to be explained by the fact that the total number of males employed in SOC1 in the Civil Service decreased from 637 in 2005 to 370 in 2006. Roman Catholic employees represented a larger proportion of this decrease and so, coupled with the numbers involved, the change in composition does indeed appear dramatic.

Monitoring returns also record the religion of applicants. For the public sector in the period 1991-2006 the Roman Catholic share has increased from 40.5% to 47.3%, whereas the Protestant share has fallen from 59.5% to 52.7%. Table A3.6 outlines Public Sector appointment by SOC group and shows that in general there are number of variations between the two communities. Overall Roman Catholics have seen the greatest increase in SOC1 appointments, particularly for females, whereas in SOC2 there has been a small decrease in Roman Catholic appointments.

The overall composition of the private sector was 54.5% Protestant and 38.8% Roman Catholic in 2005. Unlike the public sector the private sector is predominantly male, 59.1%, compared to 40.9% female. Protestants account for the greatest share of male employees throughout each of the SOC groups in the private sector as illustrated in Table A3.7. The difference is not as great for females, especially in SOC3. Change from 2004-6 shows that there is again an increase in the Roman Catholic share of employment and appointments particularly in SOC2 for men (Table A3.8).

5.4 Conclusions

The aim of this section has been to examine the impact of educational migration on the composition of the graduate labour market in NI. A lack of suitable available data on religion/community background of graduates meant that it was not possible to consider the extent to which graduate migration and non-return contributed to patterns evident within the NI monitored workforce. Instead, we examined changing patterns and trends in the community composition of the monitored workforce for SOC groups 1, 2 and 3 as these represent the occupations for which a degree is most likely to be required. Our analysis showed that in the period 2004-2006 there has been a decline in the proportion of Protestants in both the public and private sector and an increase in the proportion of Roman Catholics. This trend was most pronounced in the public sector. There was also an increase in the number of Roman Catholic appointments in the public and private sector.

The contribution of graduates to the private sector, such as in the knowledge and high value added export industries is crucial. Indeed most economies seek to use the presence of suitable graduates to boost their attractiveness to investors, while in NI the cap on student numbers means that the number of graduates in NI is lower than it could be. Educational out-migration would thus be expected to reduce long term growth.

Clearly demographic and other factors will play very large roles in these changes outlined in this section. However, it should be emphasised that this is a result of trends that have been on-going for a number of years. The direct effects of educational migration are difficult to ascertain (e.g. the level of non-return by community background is uncertain), although if around 2700 people are migrating each year³⁵ then this would have a large effect on labour supply even over only a few years. As there are similar numbers of Protestants and Roman Catholics migrating, then, if their rate of non-return was the same there would be little differential impact on the availability of labour supply for graduate posts in absolute terms. However, the relative number of all available graduates in NI who were Protestants would decline as there are more Roman Catholic graduates in total³⁶. This indicates that the issue of non-progression to HE is important in determining the availability of graduates from each community.

³⁵ See Table 2.7a.

³⁶ To take an example from Table 2.7a: the School Leavers Survey suggests that 36% of NI students studying in NI were Protestant and 59% Roman Catholic. If all those studying in GB returned to NI then there would be 38% Protestants and 54% Roman Catholics available for work.

SECTION 6: UTILITY OF DATA, DISCUSSION AND POLICY RECOMMENDATIONS

The aim of this research has been to examine the key patterns and drivers of educational migration and non-return and the impact of these on the community composition of the pool of qualified labour available to NI employers. This report has examined the patterns and trends in the educational migration of graduates and undergraduates; the key drivers of migration and the impact of migration on the graduate labour market in NI. Educational migration is one of many factors, such as demographic and economic change, influencing employment change in Northern Ireland.

6.1 Overview

The educational migration patterns of NI domiciled students indicate that approximately 30% of NI students migrate to GB to undertake undergraduate study. Of those that migrate around 20% go to England and Wales and 10% go to Scotland. In terms of community composition, a greater proportion of Protestants out-migrate than those from the Roman Catholic community. Overall considerably relatively greater numbers from the Roman Catholic community progress onto HE when compared to the Protestant community. The declining number of Protestants in the labour market can partly be explained by demographic changes in the population and the low entry rates of Protestants into HE, as well as the higher out-migration to GB of those who do go to HE. One of the other important issues identified within the context of this report has been the underachievement among many Protestants at school, particularly for boys, although it must be recognised that many from some parts of the Roman Catholic community also disproportionately do not enter HE.

The migration patterns of graduates showed that, for NI domiciled students, around 80% are employed in NI 6 months after graduating indicating that only 20% of NI domiciled graduates remain outside of NI. However, there may be a

sample bias under-estimating those who are living elsewhere, as the numbers of students covered by the 6 month survey is limited, and it is likely that those returning to their original home address are more likely to be contacted (and possibly reply) than those who have moved on elsewhere. However, figures from DEL indicate that coverage and response rates for the DLHE are high e.g. for the 2005/06 DLHE - 77.5% of full-time and 70.2% of part-time leavers had data returned to HESA, with 75.7% of full-time and 69.8% of part-time leavers who attended Higher Education institutions in Northern Ireland returning data (although high, this still leaves around a quarter who did not reply).

When the destinations of graduates from NI institutions were examined, it was shown that over 90% of graduates are employed in NI 6 months after graduation. These figures indicate that NI is successful in retaining the vast majority of its graduates. However, as the data are drawn only 6 months after graduation it is difficult to determine how many remain in NI in the long-term. That said, survey evidence does suggest that in the long-term many graduates choose to remain where they graduated. The number of graduates available to the labour market in NI is smaller than if greater efforts were made to attract in-migrants from GB - and there were additional university places for them.

One of the main aims of the research was to identify the key drivers of educational migration and non-return. The analysis identified a number of issues as being important. Higher education policy, in particular the MASN and the changes to student funding in 2006 was seen as contributing to increased demand for places at the two HE institutions in NI; the possible longer-term effect of this being to further disadvantage those from disadvantaged background who have previously been able to study in NI. Social class was seen as an important determinant of migration with those from higher social classes more likely to attend HE and, in the case of NI, most likely to migrate to GB to study. This indicates that social class may be as important a determinant of migration as community background. It was also shown that NI has a good record for

attracting students from SOC groups 4, 5, 6 and 7 when compared to the rest of the UK.

The relationship between educational migration and social disadvantage was also considered. This analysis showed that those from the most deprived areas were the least likely to migrate. However, even when the level of deprivation of a community is held constant it was found that those electoral wards with more than half their population from the Roman Catholic community were also less likely to migrate. This analysis is of particular interest as it demonstrates that community background appears to be an important driver of migration. Research currently underway, for DELNI, may shed further light on this.

In order to examine the impact of educational migration on the community composition of the graduate labour market we examined data from the LFS and returns from the monitored workforce. Data from the returns to the monitored workforce were used to examine patterns in the religious composition of the graduate labour market. As the HESA destinations data do not collect information on community composition data from the monitoring returns were used to examine the community composition of jobs in SOC groups 1, 2 and 3, where a degree is normally required. Analysis of these data showed that throughout most of the sectors, Protestants comprised the majority in each category. However, in general throughout both the public and private sector the proportion of those employed from the Roman Catholic community increased from 2004-2006. It is difficult to determine if it is educational out-migration that is having an impact on the composition of the labour market due to the lack of suitable data.

Demographic factors are likely to be an important influence on these figures. The increase in the number of Roman Catholics may represent a readjustment of the workforce in areas where they have previously been under-represented. The older age profile of the Protestant population may mean that there will be a relatively rapid increase in the proportion of Roman Catholics, as those entering

move their way up as older Protestant workers in SOC 1 and 2 retire. Although the fact that a larger proportion of Protestants migrate to GB will have an impact, there is also the issue that school leavers from the Protestant community are likely to have fewer 'A' levels and also less likely to enter HE. As discussed in Section 5 those with lower qualifications are less likely to do as well in the labour market.

There is also the issue of the possible effect that new migrants may be having on the monitored workforce, in particular those from the A8 countries who are largely likely to be Roman Catholic. The impact of these workers is likely to become more apparent in coming years.

Clearly there are a number of complex factors that contribute to educational migration in NI. Community background has been shown to be a factor but also important are social class, deprivation and educational policy. If future potential imbalances in the labour market are to be addressed then all these factors will need to be taken into account.

These issues are outlined in more detail in the policy recommendations outlined below. We have identified 4 possible areas of policy/research.

6.2 Utility and improvement in data

Some of the main types of information required to more fully understand educational out-migration and its consequences are summarised in Annex 4. One key area for policy would be an improvement in the collection and collation of data on religion at the NI and UK levels.

Data from UCAS and HESA provide a very rich source of information for examining educational migration in the UK. By using these data sources it is possible to examine migration by social class, age, gender, ethnicity, domicile,

institution, subject studied, disability and graduate destination. However, neither UCAS nor HESA collect Section 75 monitoring data on religion, making it difficult to examine the relationship between migration and community background for NI domiciled students. In order to improve the monitoring of NI student by community background, both HESA and UCAS would have to include a question on religion for all UK students or have a special form for NI students. Indeed, there have been calls at the EU level for greater monitoring of religion. Until this is achieved the merging of UCAS and HESA data (using the unique student ID code) could be useful and would allow the estimation of community background by using information on secondary school. However, the current combining of the two databases does not yet provide this level of information.

In NI there is extensive monitoring of religion or community background making it possible to examine in detail the community composition of the workforce. In order to examine in further detail the impact of migration on the graduate labour market, more details on qualifications of employees could be gathered - such as the proportion of employees with third level qualifications. In addition, it would be useful to provide some breakdown by age of employees as this would make it possible to identify the community background of labour market entrants from younger cohorts and the impact of demographic ageing. It is recognised that such additions to the annual monitoring returns would involve legislative changes at the UK and EU level. In the absence of legislative change, the Equality Commission should consider working with employers to collect further data on the characteristics of graduate appointees (e.g. community background; highest qualification; university attended; previous employment, etc.) and this could provide a greater insight into any changes in the monitored workforce.

A fundamental point is that there needs to be more analysis of the different characteristics *within* each religious group. In some ways, low attaining Protestants may have more in common with low attaining Roman Catholics in regards to HE participation and educational out-migration than with high attaining members of their own communities. It is important to identify the range of factors

that affect HE attendance and out-migration, rather than relying on a single demographic characteristic, such as community background.

6.3 Widening access

One of the important findings of this research was the link between deprivation and access to HE.

Although Protestants comprise the majority of educational migrants from NI, there are a great number of Protestants who do remain in NI but do not progress to either HE or FE. This is particularly the case for Protestant males who have the lowest rates of entry into HE. Increasing access to FE and HE for those from lower socio-economic groups may be one way of increasing the number of Protestants in the graduate labour market in NI. It may also be a way of increasing those Roman Catholics from lower socio-economic groups who face similar difficulties accessing HE. The widening of access to HE has been a major policy of the Labour Government since the publication of the Dearing Report in 1997. In the case of NI the Dearing Report (NCIHE, 1997) suggested that one way of overcoming the under-supply of places in Higher Education was to provide more sub-degree places in the further education sector. Some Foundation Degrees have been piloted, linking QUB and UU to seven colleges, and further places have been allocated to colleges as part of the general expansion of provision (Osborne, 2003). It should be noted that DEL have provided an additional 600 HE places within the FE sector which have not been filled. It may be that more needs to be done to market this type of route into HE.

DEL has had a number of initiatives to widen the participation of those from disadvantaged groups. For example special funding has been made available to HE institutions to develop projects to increase the participation of under-represented groups and a widening participation premium is paid to universities for students from disadvantaged backgrounds (DELNI, 2005).

Other ways of widening access to those from a disadvantaged background include the greater use of more flexible forms of learning such as part-time learning. It is appreciated that these forms of learning are currently already available; however, there may be scope to increase their uptake. Part-time learning may be of particular advantage to those from low income groups who could combine study with working. This would not affect the MASN as part-time students are not counted in this.

However, increasing the number of HE places in NI may not necessarily mean that more graduates are retained in the labour market.

6.4 Attracting graduates

The labour market in NI is growing and there is likely to be greater demand for graduate level employees in the future. Major economic benefits can be derived for the local economy through the presence of graduates in the labour market. If the two existing HE institutions are unable to increase student numbers it may be that more effort will need to be put into attracting graduates to NI. This could either be NI domiciled graduates or those from other areas. This could be similar to the Fresh Talent initiative in Scotland (this initiative encourages people to relocate to Scotland and allows international (non-EU) students to remain in Scotland for two years after graduation)³⁷. There is likely to be an increased demand for skilled graduate labour in the future and if there is insufficient supply locally, graduates will need to be attracted from other areas. If greater numbers of GB students were attracted to NI it is likely there would be an impact on the composition of the graduate labour market. There would be an impact on the availability for graduate jobs of those with a different community background (which would likely be in the direction of redressing some of the current imbalance in the community background make-up of NI HEIs).

Although increasing the number of graduates in the labour market in NI is likely to benefit the economy and attractiveness for investment, consideration has to be

³⁷ see <http://www.scotlandistheplace.co.uk>

given to whether there are enough graduate level jobs in NI. Indeed it had been suggested that around 26% of Northern Ireland domiciled graduates were over educated for the jobs that they were in the three years after graduating (McGuinness and Doyle, 2005).

Attracting more graduate migrants would require involvement from employers. One example of an initiative in NI to address the 'brain drain' is a recruitment campaign by Grafton who are seeking professionals originally from NI to fill vacancies, in their 'home for the holidays' initiative. The managing director stated that there was a big rise in the number of highly qualified people living overseas who have contacted Grafton recently who wanted to return to NI.

6.5 Further research

A large body of literature exists on educational migration in NI, and it is hoped that this research has made a contribution. However, it is felt that in order to fully understand educational migration and non-return in NI, further research should be carried out in the following areas.

Linking databases

There is room for further analysis of existing data sets. As stated above, the linking of UCAS and HESA data will provide powerful information that would link school leavers through to their first destination at graduation and give additional insights into educational migration and non-return. As part of this, the differing data from the UCAS, HESA and also the School Leaver Surveys, should be 'reconciled' especially in terms of their figures on migration and in the case of the SLS on community background (each is based upon differing measures and objectives). It could be possible to include more detailed community background information in their data collection, but the costs of this would need to be carefully considered and the additional information would presumably only be applied to NI students.

Return and non-return of graduates to NI

- ❑ There is a lack of evidence on the actual behaviour of NI students studying in GB (or elsewhere) in terms of their short- and long-term return to NI. It would be useful to research the intentions of existing HE students in GB concerning the motives for, and possible timing of, their return or non-return to NI. However, as there may be a difference between their views and their actual behaviour, evidence is needed on the actual return rates to NI over different periods and also how long students who return to NI actually remain in NI, for example, some may only return home for some months until they find a permanent job, perhaps not in NI.

- ❑ Although a large body of survey evidence has been gathered on school leavers' attitudes to HE and FE, there is less qualitative information on the drivers, motivations and experiences of NI domiciled students once they are in HE institutions and importantly, once they graduate. Future research could develop and build on work such as that undertaken by Purcell et al. (2005), addressing issues such as, how do NI graduates working in GB feel about their experience in the labour market and would they consider returning; what have been the experiences of return migrants to NI; and what are the motivations, experiences and perceptions of those that do not return?

- ❑ More research is needed into the levels, characteristics and drivers of return to NI, both in the short- and long-term. This could be done through greater analysis of the HESA database, combined with UCAS to estimate community background and e-surveys of GB and NI based students.

- ❑ Specific research should also consider the extremely high rate (nearly half) of educational out-migration by those stating 'other' as community background. This should include: to what degree are these people who could be perceived as belonging one to of the two main community backgrounds; or are they from other ethnic minority communities?

Future tracking of graduates

- ❑ There may be scope to include questions relating to migration and non-return in the Futuretrack survey. Futuretrack follows applicants to HE for six years from the time they apply to HE.

- ❑ There may be scope in the NI sample to include questions on their migration intentions following graduation, for NI domiciles in NI and those studying in GB. It would also be informative to include a retrospective question on their decision to migrate for those NI domiciles studying in GB. This information would be of particular use if it was included alongside questions on social class and community background.

Access to Higher Education and effects of capping student numbers

- ❑ Further work could also be carried out on the links between deprivation, gender, low achievement at school and access to HE (which may even include consideration of early childhood).

- ❑ Further research is needed on the effect that the cap on student numbers has on participation in HE, particularly for those from disadvantaged backgrounds and areas. For example, does the cap discourage some groups of potential students from applying to HE because they feel they would not be able to get a place in NI and/or does it increase the number of 'reluctant leavers' from NI?

Workforce composition

- ❑ There is a need for greater analysis of the composition of the labour pool available for graduate jobs (including foreign migrants who may have graduated abroad) and the links between this and entry into graduate level jobs. This would also include estimating the relative importance, and changes over time, in the demographic size and composition of the potential graduate

population, and the propensities to enter HE, enter HEIs in NI, and return from GB to NI after graduation.

- ❑ The future workplace composition for graduate jobs should be analysed in a dynamic sense rather than purely a static one. In particular the impact of current positions and recent trends on projected future community composition and other characteristics of the workforce, in 10 and 20 years should be analysed.

The importance of differences within communities

- ❑ Finally, as discussed above there needs to be more analysis of the different characteristics *within and between* each community, in terms of HE attendance, educational migration and return/non-return and barriers to entry.

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ANNEX 1

Relevant main variables available from key datasets

Variable	SLS	UCAS	HESA
Age	yes (DOB)	yes	yes
Community Background/religion	yes	no	no
Disability	no	yes	yes
Ethnicity	no	yes	yes
Free school meal entitlement	yes	no	no
Gender	yes	yes	yes
Geography	yes	region	postcode
Migration to GB	yes	yes	yes
Qualifications	yes	yes	yes
School	yes	yes	
Socio-economic class	no	yes	no
Subject	no	yes	yes

HESA Higher Education Statistics Agency

SLS School Leavers Survey

UCAS Universities and Colleges Admissions Service

ANNEX 2

Hypothetical illustration of bias introduced by restricting numbers

The capping of student numbers in Northern Ireland may lead to a systematic bias in community balance in Higher Education Institutions (HEIs), and hence wider society. This annex considers the process taking a hypothetical example to show, in principle, how the potential bias could come about. These numbers are not meant to replicate figures for Northern Ireland's communities.

Consider this *hypothetical* example. There are two groups in society – Group A and Group B. Say there are 100 students in each group (total 200) who all enter Higher Education in any given year. For whatever reason, a proportion of the top students from one group (Group B) go to GB or elsewhere to study.

For simplicity, assume each group applies to the same courses and entrance is purely on academic achievement and both groups have the same level of achievement. A diagrammatic version is also given below.

Case 1 – 125 places available

The number of HEI places is capped at 125 places, so only 62.5% of students can study at home and the rest must go elsewhere.

Consider the top 25% of academic achievers in each group, all of whom would be accepted to a Northern Ireland HEI. But say the top 25% of academic achievers of Group B all decide to go to study in Great Britain, while the top 25% in Group A decide to study in Northern Ireland. Hence the first 25 places in Northern Ireland HEIs will all go to the top students of Group A.

This leaves 100 Northern Ireland HEI places. As the remaining students are equivalent academically to each other, places will be split equally between the

two groups, i.e. 50 to Group A and 50 to Group B. Hence, in total, 75 Northern Ireland HEI places go to Group A (25 + 50) and 50 to Group B.

So 60% of NI places go to Group A and 40% to Group B.

The remaining students, 25 of Group A and 50 of Group B, go to GB or elsewhere to study, some as reluctant movers and some not. Further potential students may not even attend HE.

Case 2 – 155 places available

Now say there are 155 places and again the top 25% academic achievers of Group B go to GB. So the first 25 Northern Ireland HEI places again go to the top students of Group A. However, there are now 130 places left, divided between 65 students from of each Group. Hence in total, 90 Northern Ireland HEI places go to Group A (25 + 65) and 65 to Group B. The remaining 10 from each group who do not get into a local HEI have to study in GB or elsewhere.

So 58% of places go to Group A and 42% to Group B.

Hence, on these basic assumptions, the 30 extra places reduce the gap between the groups in Northern Ireland HEIs from around 20% to 16% percentage points. The point here is not the exact figures, or the various assumptions, but rather: if more high academic achievers from Group B go to study in GB or elsewhere, for whatever reason, and there is a cap on the number of places, then the tighter the cap the more there will be a bias in the composition of students in Northern Ireland HEIs.

If the presence of large numbers of Group A at Northern Ireland HEIs discourages Group B students from going to Northern Ireland HEIs then there will be a bigger bias in the long-term. If students in Group B have lower academic achievement and more would not enter HE otherwise, then there will be an even bigger bias (as more of Group A will get places).

However, the effect of raising the cap would depend on factors such as which group (A or B) would be more likely to stay in NI (rather than going to GB), or

enter HE (rather than going to FE or not entering tertiary education). Further research would be required to estimate the likely effect of this on the community composition of the student population.

Case 3 – 200 places available

If there were 200 places and 200 students, but the top 25% of Group B continue to go away then the 25 spaces would presumably be filled by those from elsewhere (e.g. students from GB). In this case there would be 100 Group A (50% of the total), 75 (38%) Group B and 25 from elsewhere. If those from elsewhere had more similar characteristics to Group B, then in theory the balance could be 50-50 (in practice this may vary slightly as some of Group A would likely go away to HEIs anyway and the characteristics of those coming from outside are likely to differ from Groups A and B).

So 50% of places go to Group A, 38% to Group B and 12% for GB.

If NI HEIs were allowed to increase numbers and given an incentive to attract significant numbers of students from GB, then the expansion need not lead to a lowering of entry requirements and, whether or not it led to lower entry standards, it would increase the shares of GB students and almost certainly lead to a more diverse make up of the student population.

Overall

If more GB students could not be attracted to NI, then the effect of raising the cap would depend on factors such as the community background of those who now stayed in NI (rather than going to GB), or those now entering HE (rather than going to FE or not entering tertiary education). Further research would be required to estimate the likely effect of this on the community composition of the student population.

Diagram Annex 2

CASE 1:
Admittance capped at 125 places

	GROUP A 100 Students	GROUP B 100 Students	
Top Students Accepted to NI Higher Education	Choose to Study in NI	Choose to Study Away	<i>Top 25%</i>
Middle Grade Students Accepted to NI Higher Education	Choose to Study in NI	Choose to Study in NI	<i>Middle 50%</i>
Students Not Accepted to NI Higher Education			<i>Bottom 25%</i>

CASE 2:
Admittance capped at 155 places

	GROUP A 100 Students	GROUP B 100 Students	
Top Students Accepted to NI Higher Education	Choose to Study in NI	Choose to Study Away	<i>Top 25%</i>
Middle Grade Students Accepted to NI Higher Education	Choose to Study in NI	Choose to Study in NI	<i>Middle 65%</i>
Not Accepted			<i>Bottom 10%</i>

CASE 3:
Admittance capped at 200 places

	GROUP A 100 Students	GROUP B 100 Students	
Top Students Accepted to NI Higher Education	Choose to Study in NI	Choose to Study Away	<i>Top 25%</i>
Middle and Lower Grade Students Accepted to NI Higher Education	Choose to Study in NI	Choose to Study in NI	<i>Remaining 75%</i>

Higher Education Paths of Two Hypothetical Groups in Northern Ireland

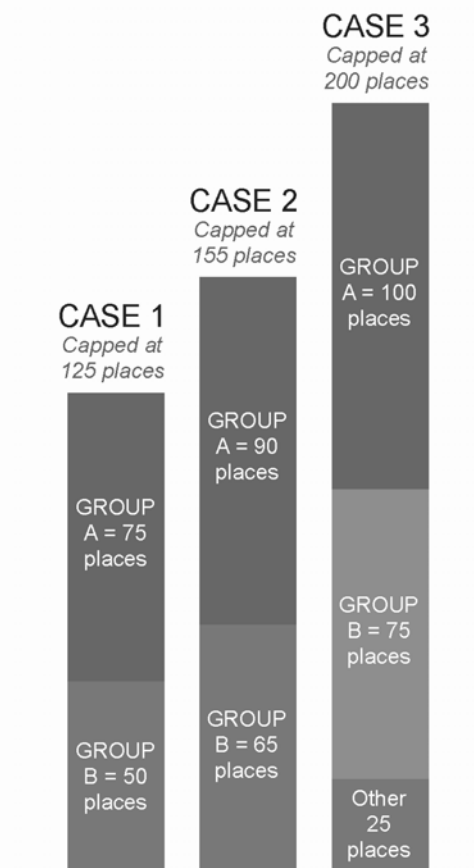
Group A and Group B each represent a section of society representing 100 students each.

There is an equal breakdown of academic attainment across the groups.

The top 25% of Group B choose to study elsewhere.

The figure shows the groups will not be equally represented by students who attend Higher Education Institutions in Northern Ireland.

Groups A and B Represented in Higher Education Within NI



ANNEX 3

Monitoring tables

Table A3.1: Composition of Public Sector Full-time Employment 2004-6

	Total Public Sector %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	59.1	57.1	57.3	-1.8	40.9	42.9	42.7	1.8
SOC 2	53.6	52.5	52	-1.6	46.4	47.5	48	1.6
SOC 3	62.8	61.5	60.5	-2.3	37.2	38.5	39.5	2.3
ALL	57.4	56.7	56.1	-1.3	42.6	43.3	43.9	1.3
	Public Sector Males %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	62.4	60.5	60.9	-1.5	37.6	39.5	39.1	1.5
SOC 2	57.9	56.9	56.3	-1.6	42.1	43.1	43.7	1.6
SOC 3	73.7	71.8	70.4	-3.3	26.3	28.2	29.6	3.3
ALL	62	61.1	60.5	-1.5	38	38.9	39.5	1.5
	Public Sector Females %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	55.3	53.3	53.3	-2	44.7	46.7	46.7	2
SOC 2	49.4	48.6	48.2	-1.2	50.6	51.4	51.8	1.2
SOC 3	52.8	52.5	52.2	-0.6	47.2	47.5	47.8	0.6
ALL	54.1	53.6	53	-1.1	45.9	46.4	47	1.1

Source: (2005, 2006a & 2007) Monitoring Report Nos. 15, 16 & 17

Note that these tables exclude those of non-determined community background (so percentages for Roman Catholics and Protestants add to 100%).

Table A3.2: Composition of Health sector Full-Time Employment 2004-6

	Total Health Sector %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	52	50.6	50.5	-1.5	48	49.4	49.5	1.5
SOC 2	50.3	49.3	48.9	-1.4	49.7	50.7	51.1	1.4
SOC 3	48.6	48.5	48.4	-0.2	51.4	51.5	51.6	0.2
ALL	51.3	50.9	50.8	-0.5	48.7	49.1	49.2	0.5
	Health Sector Male %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	50.3	48.7	48.4	-1.9	49.7	51.3	51.6	1.9
SOC 2	52.5	51.3	51.3	-1.2	47.5	48.7	48.7	1.2
SOC 3	43.8	43.7	43.1	-0.7	56.2	56.3	56.9	0.7
ALL	47.9	47.6	47.3	-0.6	52.1	52.4	52.7	0.6
	Health Sector Female %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	53	51.6	51.6	-1.4	47	48.4	48.4	1.4
SOC 2	49	48.3	47.7	-1.3	51	51.7	52.3	1.3
SOC 3	49.2	49	49	-0.2	50.8	51	51	0.2
ALL	52.1	51.6	51.6	-0.5	47.9	48.4	48.4	0.5

Source: ECNI (2005, 2006a & 2007) Monitoring Report Nos. 15, 16 & 17

Table A3.3: Composition of Education sector Full-Time Employment 2004-6

	Total Education Sector %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	59.8	60.5	58.6	-1.2	40.2	39.5	41.4	1.2
SOC 2	49.2	48.4	47.5	-1.7	50.8	51.6	52.5	1.7
SOC 3	51.3	49.8	50.2	-1.1	48.7	50.2	49.8	1.1
ALL	53.7	52.8	51	-2.7	46.3	47.2	49	2.7
	Education Sector Male %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	60.3	60.4	57.4	-2.9	39.7	39.6	42.6	2.9
SOC 2	52.7	51.9	51.4	-1.3	47.3	48.1	48.6	1.3
SOC 3	52.3	49.8	50.8	-1.5	47.7	50.2	49.2	1.5
ALL	54.4	53.2	53	-1.4	45.6	46.8	47	1.4
	Education Sector Female %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	59.5	60.5	59.2	-0.3	40.5	39.5	40.8	0.3
SOC 2	46.5	45.8	44.6	-1.9	53.5	54.2	55.4	1.9
SOC 3	50.4	49.9	49.6	-0.8	49.6	50.1	50.4	0.8
ALL	53.4	52.7	50.3	-3.1	46.6	47.3	49.7	3.1

Source: ECNI (2005, 2006 & 2007) Monitoring Report Nos. 15, 16 & 17

Table A3.4: Composition of District Council Full-Time Employment 2004-6

	Total District Council %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	62.4	60.2	59.8	-2.6	37.6	39.8	40.2	2.6
SOC 2	54.7	56.2	54	-0.7	45.3	43.8	46	0.7
SOC 3	58.3	57.5	56.2	-2.1	41.7	42.5	43.8	2.1
ALL	61.2	60.8	60.6	-0.6	38.8	39.2	39.4	0.6
	District Council Male %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	65.3	63.4	62.8	-2.5	34.7	36.6	37.2	2.5
SOC 2	58.6	60.6	56	-2.6	41.4	39.4	44	2.6
SOC 3	61.8	61.1	58.6	-3.2	38.2	38.9	41.4	3.2
ALL	61.9	61.9	61.4	-0.5	38.1	38.1	38.6	0.5
	District Council Female %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	57.4	54.8	55.3	-2.1	42.6	45.2	44.7	2.1
SOC 2	49.5	50.7	51.4	1.9	50.5	49.3	48.6	-1.9
SOC 3	53.5	52.8	53.3	-0.2	46.5	47.2	46.7	0.2
ALL	60	59	59.3	-0.7	40	41	40.7	0.7

Source: ECNI (2005, 2006 & 2007) Monitoring Report Nos. 15, 16 & 17

Table A3.5: Composition of Civil Service Full-Time Employment 2004-6

	Total Civil Service %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	60.8	56.2	69.1	8.3	39.2	43.8	30.9	-8.3
SOC 2	61.5	59.4	58.9	-2.6	38.5	40.6	41.1	2.6
SOC 3	65.6	65.1	64.4	-1.2	34.4	34.9	35.6	1.2
ALL	57.8	57.5	57.3	-0.5	42.2	42.5	42.7	0.5
	Civil Service Male %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	64.8	61.4	74.2	12.8	35.2	38.6	25.8	-9.4
SOC 2	65.1	63.5	62.5	-2.6	34.9	36.5	37.5	2.6
SOC 3	67.3	66.8	66.1	-1.2	32.7	33.2	33.9	1.2
ALL	60.7	60.7	60.3	-0.4	39.3	39.3	39.7	0.4
	Civil Service Female %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	55.5	45.8	53.9	-1.6	44.5	54.2	46.1	1.6
SOC 2	53.5	51.3	52.1	-1.4	46.5	48.7	47.9	1.4
SOC 3	61	60.6	60.2	-9.9	39	39.4	39.8	9.9
ALL	54.7	54.3	54.1	-0.6	45.3	45.7	45.9	0.6

Source: ECNI (2005, 2006 & 2007) Monitoring Report Nos. 15, 16 & 17

Table A3.6: Composition of Public Sector appointments 2004-6

	Total Appointments %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	51.2	44.7	47.5	-3.7	48.8	55.3	52.5	3.7
SOC 2	46.2	47.6	46.4	0.2	53.8	52.4	53.6	-0.2
SOC 3	49.1	48.9	47.5	-1.6	50.9	51.1	52.5	1.6
ALL	50.1	50.1	49.5	-0.6	49.9	49.8	50.5	0.6
	Male Appointments %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	51.1	44.5	52.4	1.3	48.9	55.5	47.6	-1.3
SOC 2	47	48.7	47.4	0.4	53	51.3	52.6	-0.4
SOC 3	52.7	52.8	48.9	-3.8	47.3	47.2	51.1	3.8
ALL	51.5	51.1	50.5	-1	48.5	48.9	49.5	1
	Female Appointments %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	51.2	44.9	44	-7.2	48.8	55.1	56	7.2
SOC 2	45.7	47	45.8	0.1	54.3	53	54.2	-0.1
SOC 3	47.4	47.3	47	-0.4	52.6	52.7	53	0.4
ALL	49.4	49.8	49	-0.4	50.6	50.2	51	0.4

Source: ECNI (2005, 2006 & 2007) Monitoring Report Nos. 15, 16 & 17

Table A3.7: Composition of the Private Sector Full-Time Employment, 2004-6

	Total Private Sector %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	59.1	58.7	57.9	-1.2	40.9	41.3	42.1	1.2
SOC 2	55.2	54	53.3	-1.9	44.8	46	46.7	1.9
SOC 3	55.9	55	54.8	-1.1	44.1	45	45.2	1.1
ALL	59.4	58.4	57.5	-1.9	40.6	41.6	42.5	1.9
	Private Sector Male %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	61	60.6	59.9	-1.1	39	39.4	40.1	1.1
SOC 2	58.7	57	56.4	-2.3	41.3	43	43.6	2.3
SOC 3	59.4	58.3	58.3	-1.1	40.6	41.7	41.7	1.1
ALL	60.6	59.4	58.5	-2.1	39.4	40.6	41.5	2.1
	Private Sector Female%							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	56	55.6	54.7	-1.3	44	44.4	45.3	1.3
SOC 2	48.6	48.7	47.8	-0.8	51.4	51.3	52.2	0.8
SOC 3	51.3	50.9	50.3	-1	48.7	49.1	49.7	1
ALL	57.7	57	56	-1.7	42.3	43	44	1.7

Source: ECNI (2005, 2006 & 2007) Monitoring Report Nos. 15, 16 & 17

Table A3.8 Composition of Private Sector appointments 2004-6

	Total Private Sector Appointments %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	54.7	53.3	54.3	-0.4	45.3	46.7	45.7	0.4
SOC 2	47.6	46.9	45.2	-2.4	52.4	53.1	54.8	2.4
SOC 3	47.3	44.9	47.1	-0.2	52.7	55.1	52.9	0.2
ALL	52.9	51.3	49.9	-3.0	47.1	48.7	50.1	3.0
	Private Sector Appointments Male %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	56.3	56.1	56.9	0.6	43.7	43.9	43.1	-0.6
SOC 2	50.4	47.8	46.5	-3.9	49.6	52.2	53.5	3.9
SOC 3	50.2	42.7	49.2	-1	49.8	57.3	50.8	1
ALL	54.6	51.6	50.8	-3.8	45.4	48.4	49.2	3.8
	Private Sector Appointments Female %							
	Protestant				Roman Catholic			
	2004	2005	2006	% change	2004	2005	2006	% change
SOC 1	53	49.9	51.2	-1.8	47	50.1	48.8	1.8
SOC 2	44.1	45.7	43.3	-0.8	55.9	54.3	56.7	0.8
SOC 3	45.1	47	45.2	0.1	54.9	53	54.8	-0.1
ALL	51.3	51.1	49	-2.3	48.7	48.9	51	2.3

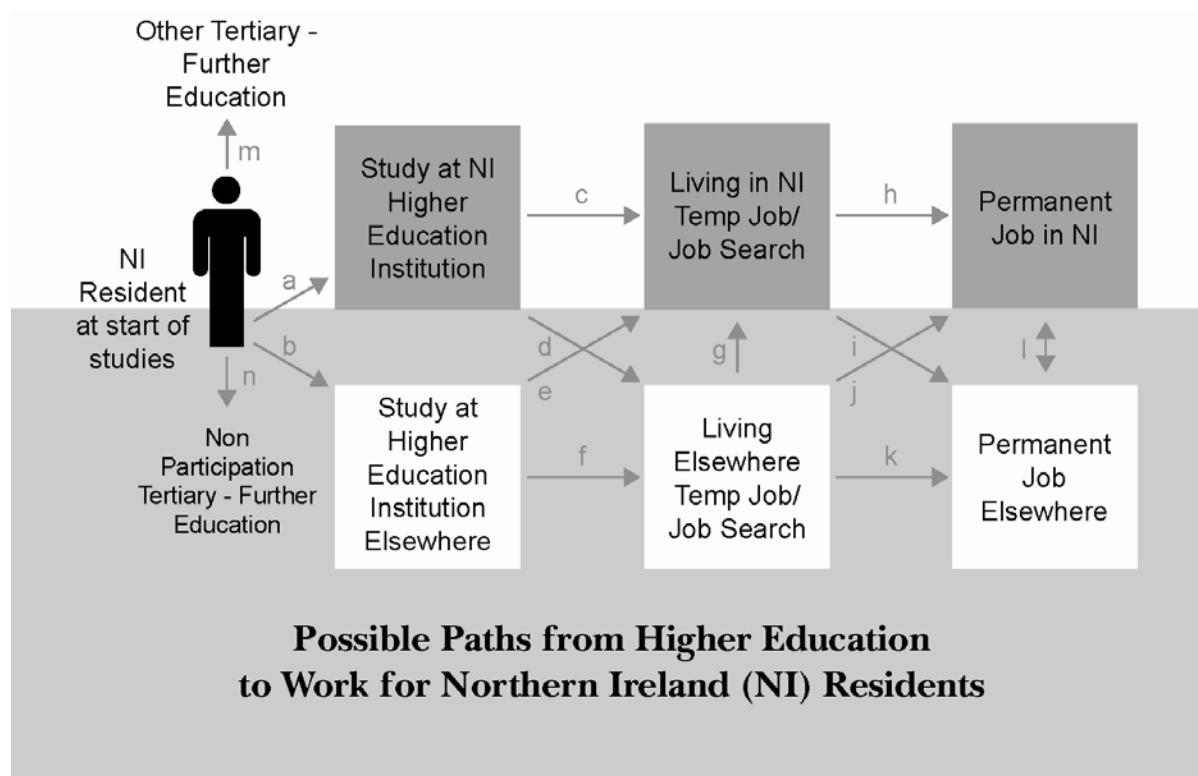
Source: ECNI (2005, 2006 & 2007) Monitoring Report Nos. 15, 16 & 17

ANNEX 4

Possible Pathways for Northern Ireland students – Data Needs

The Diagram and Table below summarise some of the information required to more fully investigate the scale, causes and implications of educational out-migration. They outline the potential pathways for NI domiciled students on entering Higher Education and the level at which data are currently available. In relation to non-return two common pathways can be identified. Firstly, where a student leaves NI to study at a HEI then returns following graduation to look for work, finds work outside of NI and leaves; secondly where a student leaves to study outside of NI and finds work there following graduation. Common to these two groups is that both leave NI to study at HE institutions and this seems to have a significant negative impact on the probability of returning to work in NI.

Diagram Annex 4 - Possible Pathways for Northern Ireland students



	Pathway	Do we have reasonable information?	ECNI interest/ role in this issue in relation to educational migration?
a	Northern Ireland domiciled student chooses to study at a NI Higher Education Institute	Yes, but need to link UCAS and HESA data	Yes, role of educational non-migration
b	NI domiciled student chooses to study at an HEI elsewhere (i.e. not in NI, generally in GB)	Yes, but need to link UCAS and HESA data	Yes, role of educational migration
c	Student leaves NI HEI and looks for work or starts a temporary job in NI	Yes. Limited (HESA follow up)	Entry into NI employment/ workplace monitoring
d	Student leaves NI HEI, moves elsewhere to look for work or starts a temporary job there	No	Level and proportion of each community doing this
e	Student leaves non-NI HEI, moves back to NI and looks for work or starts a temporary job	Limited (HESA follow up, limited surveys)	Level of, and reasons for, return/non-return and student characteristics
f	Student leaves non-NI HEI and looks for work or starts a temporary job elsewhere (i.e. other than in NI)	Limited (HESA follow up) – but possible bias in lower returns than if return to home address in NI	Level of, and reasons for, return/non-return
g	Student from non-NI HEI gives up looking for a job while living elsewhere and returns to NI to look for a job or take a temporary job	No (Possibly through longer term HESA follow up)	Level of, and reasons for, return/non-return
h	Student in NI looking for work takes a 'permanent' job in NI	Limited	Entry into NI employment/ workplace monitoring
i	Student of NI HEI takes a 'permanent' job elsewhere (i.e. not in NI)	No (Possibly through longer term HESA follow up)	Effect of out-migration of graduates, and proportion of each community
j	Student in temporary job/ looking for job returns to NI to take a 'permanent' job	No (Possibly through longer term HESA follow up)	Entry into NI employment/ workplace monitoring
k	Student living elsewhere who is looking for work takes a 'permanent' job in elsewhere	No (Possibly through longer term HESA follow up)	Level of, and reasons for, return/non-return
l	Students with a 'permanent' job moves to/from NI	No	Migration and Workplace monitoring
m	Student goes to FE/ other education	Yes	Effects on community composition of graduates
n	Student does not go to HE/FE	Yes	Effects on community composition of graduates; Educational under-achievement as a barrier to access to HE/FE (analyse other barriers also)

Equality Commission

FOR NORTHERN IRELAND

May 2008

Contact
Equality House
7-9 Shaftesbury Square
Belfast BT2 7DP

Tel. 028 90 890 890 (enquiry line)
Email. information@equalityni.org
www.equalityni.org