Belfast City Region

Future skills needs

Final report

January 2019

Ulster University Economic Policy Centre

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Acronyms and skills classification

Acronyms

Acronym	Full title
UUEPC	Ulster University Economic Policy Centre
BCC	Belfast City Council
BCR	Belfast City Region
NI	Northern Ireland
NQF	National Qualifications Framework
SIC	Standard Industrial Classification
SOC	Standard Occupational Classification
LFS	Labour Force Survey
LADB	Local Area Database
DfE	Department For Economy
LGDs	Local Government Districts
JACS	Joint Academic Coding System
SSA	Sector Subject Areas
HND	Higher National Diploma
MCS	Millennium Cohort Study
HE	Higher Education
FE	Further Education
HBAI	Household Below Average Income
PIAAC	Programme for the International Assessment of Adult Competencies
OECD	Organisation for Economic Co-operation and Development
TfS	Training for Success
GTS	Government Training Schemes
PEX	Probability of Exit

Skills Classification

1. The skills level used in the analysis will be based on the National Qualification Framework (NQF) which aligns to qualification levels as set out in Table 1.

Table 1: NQF scale

NQF level	Description
Level 8	PhD (or equivalent)
Level 7	Masters (or equivalent)
Level 6	Degree (or equivalent)
Level 4-5	Foundation Degree/ HND/ HNC (or equivalent)
Level 3	A-Level (or equivalent)
Level 2	5 GCSEs Grades A – C (or equivalent)
Level 1	5 GCSEs Grades D – G (or equivalent)
Level 0	No qualifications

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1. Introduction

1. Ulster University Economic Policy Centre (UUEPC) were commissioned by Belfast City Region (BCR) council areas to report on the future skill needs of BCR area. The BCR is defined by six Local Government Districts (LGDs)[1]. The empirical approach is based directly upon UUEPC's forecasting methodology employed in the Northern Ireland (NI) Skills Barometer[2].

2. The NI Skills Barometer was commissioned by the Department for the Economy (DfE) and involved the development of an economic model to forecast future skills needs and skills gaps by qualification level, subject area and sector. The project was originally commissioned in 2015 and is updated every 18 months. The quantitative findings of the research have benefitted a wide range of stakeholders including; careers advisors, young people and parents; teachers and schools; business groups; DfE and wider government.

3. This brief report summarises the key results and messages from the assessment of future skills demand and review of supply side indicators relating to the BCR area. The report also provides a background economic context which underpins the skills forecasts.

4. The remainder of this report is summarised as follows:

- Local economic context;
- BCR economy – High growth scenario;
- Skill requirements for tomorrow's economy – High growth scenario;
- Supply side;
- Can BCR's residents' service tomorrow's skill needs?;
- Summary and policy remarks; and
- Annexes.

1 Antrim and Newtownabbey; Mid and East Antrim; Belfast; Lisburn and Castlereagh; Ards and North Down; and Newry, Mourne and Down.

2 UUEPC (2017) Northern Ireland Skills Barometer, Skills in Demand https://www.economy-ni.gov.uk/publications/ni-skills-barometer

2. Local economic context

Introduction

1. In order to fully understand the future skill needs of the BCR area it is useful to illustrate a number of economic and skill characteristics of the BCR workforce (i.e. **the jobs in BCR, not the jobs BCR residents hold**).

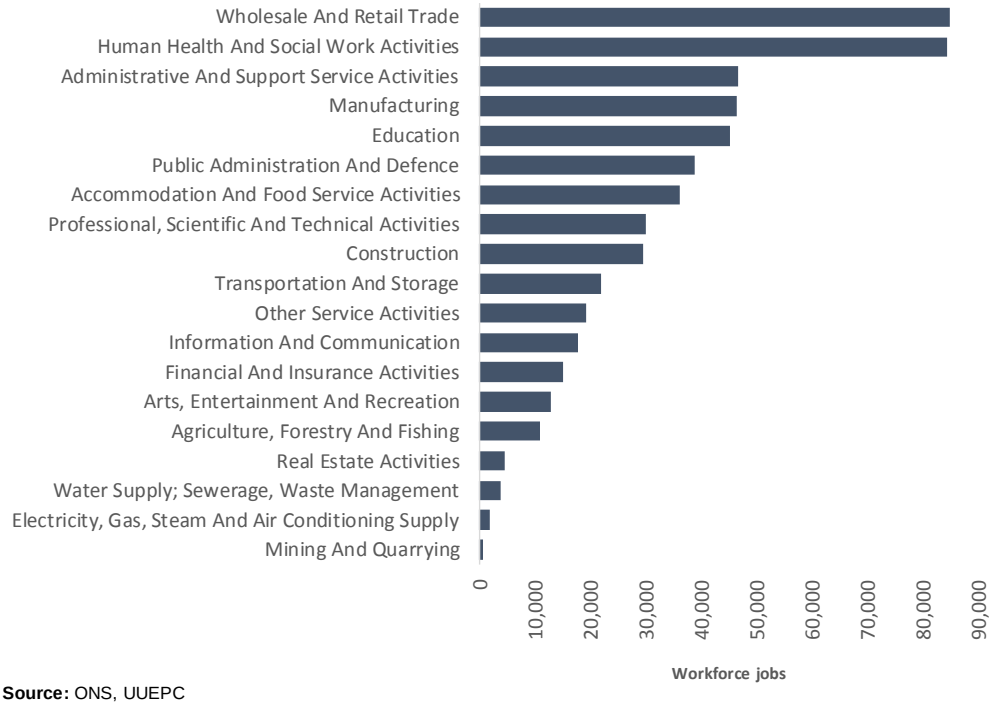
2. Where statistics relate to 2017 data is estimated using information from UUEPC's economic model. In all other cases figures relate to the most recently published official data. Although a number of figures in this chapter use data from the 2011 Census, the stock of skills changes very slowly over time. Therefore, the Census is still considered to be a data source which reflects current skills patterns across BCR and NI.

Workforce sector structure (jobs based, workplace based)

3. The largest sector[3] in BCR is wholesale and retail trade, which provides 85,150 jobs. This accounts for 15% of all jobs in BCR and 63% of all jobs in this sector in NI. The second largest sector is human health and social work activities, which accounts for 84,620 jobs within the region. This represents 15% of BCR jobs, and 61% of all jobs in this sector in NI.

4. Other large employers within BCR include administration and support services (46,750 jobs, 8% of BCR total); manufacturing (46,400 jobs, 8% of BCR total); education (45,390, 8% of BCR total); and public administration and defence (38,960 jobs, 7% of BCR total).

Figure 2.1: Workforce jobs by sector (1-digit), BCR (workplace based) (2017)



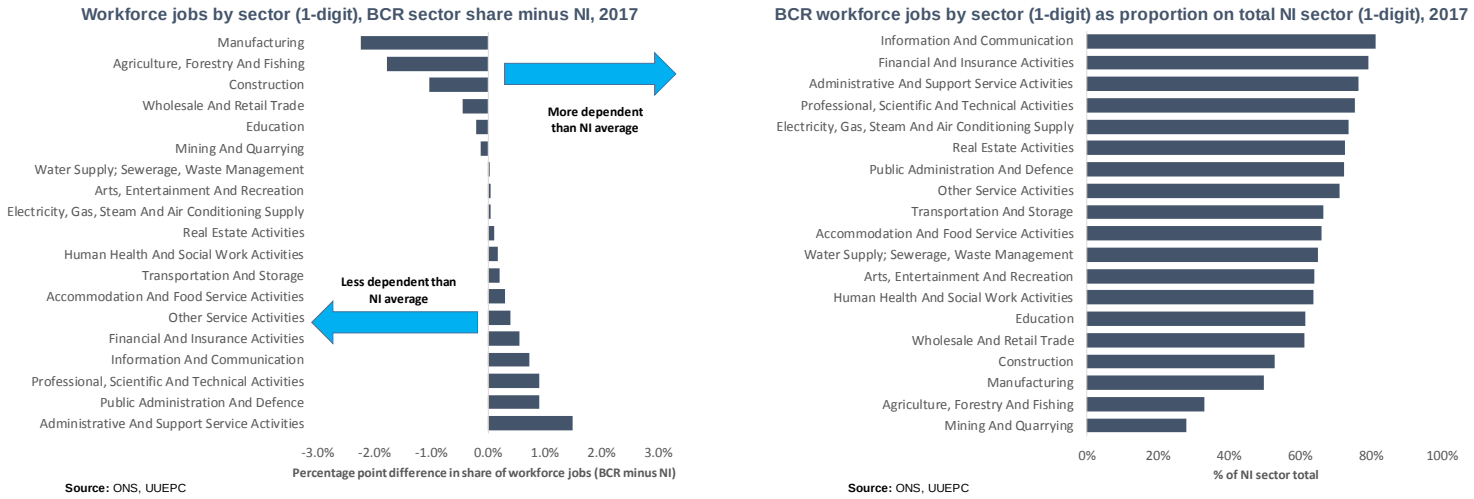
Source: ONS, UUEPC

[3] Sector refers to the Standard Industrial Classification (SIC) framework wherein 1-digit SIC are broad sectoral groupings and 2-sigit SIC are more detailed.

5. Relative to the NI average the BCR economy has a higher concentration of workforce jobs in a number of sectors. The top five sectors where BCR is more dependent are administration and support services; public administration; professional services; information and communication; and finance and insurance.

6. In particular, three of the top five sectors can be identified as skill intensive, indicating BCR hosts relatively more highly skilled jobs compared to the NI average.

Figure 2.2: Workforce jobs by sector (1-digit), BCR relative to the NI (workplace based) (2017)



7. BCR accounts for over three quarters of total NI workforce jobs within four sectors: information and communication (81% of NI sector total); finance and insurance (79% of NI sector total); administration and support services (77% of NI sector total); and professional services (76% of NI sector total). **The high share of such sectors within BCR further emphasises the concentration of highly skilled jobs within the region relative to the NI average.**

8. **The scale of jobs differs across each of the LGDs which comprise BCR.** For example, BCC accounts for 255,820 workers (46% of BCR total) whereas Ards and North Down accounts for 45,810 workers (8% of BCR total). A breakdown of workforce jobs structure for each of the LGDs which comprise BCR is provided in Annex C1.

9. **It should be noted that LGDs within BCR have a varied industry structure.** For example, within BCC the administration and support sector accounts for 13% of total workforce jobs, which compares to 2% in Newry, Mourne and Down. A full list of workforce jobs sectoral structure relative to NI is provided for each of the LGDs which comprise BCR in Annex C2.

10. The table overleaf compares sector workforce job growth in BCR against NI. To summarise, **44,360 jobs were created in BCR over the five year period from 2012 to 2017.** This accounts for over two thirds (64%) of total workforce job growth in NI.

Table 2.1: Workforce jobs growth by sector (1-digit), BCR (2012-2017)

	Belfast City Region		Northern Ireland
Sector	Job growth 2012-2017	% change	% change
Agriculture, Forestry And Fishing (including farming employees)	-450	-4%	-6%
Mining And Quarrying	-190	-25%	-11%
Manufacturing	5,930	15%	20%
Electricity, Gas, Steam And Air Conditioning Supply	780	73%	100%
Water Supply; Sewerage, Waste Management And Remediation Activities	520	15%	14%
Construction	1,330	5%	8%
Wholesale And Retail Trade; Repair Of Motor Vehicles And Motorcycles	380	0%	1%
Transportation And Storage	1,570	8%	8%
Accommodation And Food Service Activities	6,560	22%	22%
Information And Communication	2,900	19%	17%
Financial And Insurance Activities	-670	-4%	-6%
Real Estate Activities	-1,000	-18%	-19%
Professional, Scientific And Technical Activities	5,350	22%	20%
Administrative And Support Service Activities	11,860	34%	33%
Public Administration And Defence; Compulsory Social Security	-3,170	-8%	-9%
Education	1,790	4%	3%
Human Health And Social Work Activities	3,830	5%	5%
Arts, Entertainment And Recreation	1,350	12%	14%
Other Service Activities	5,700	42%	45%
Total	**44,360**	**9%**	**9%**

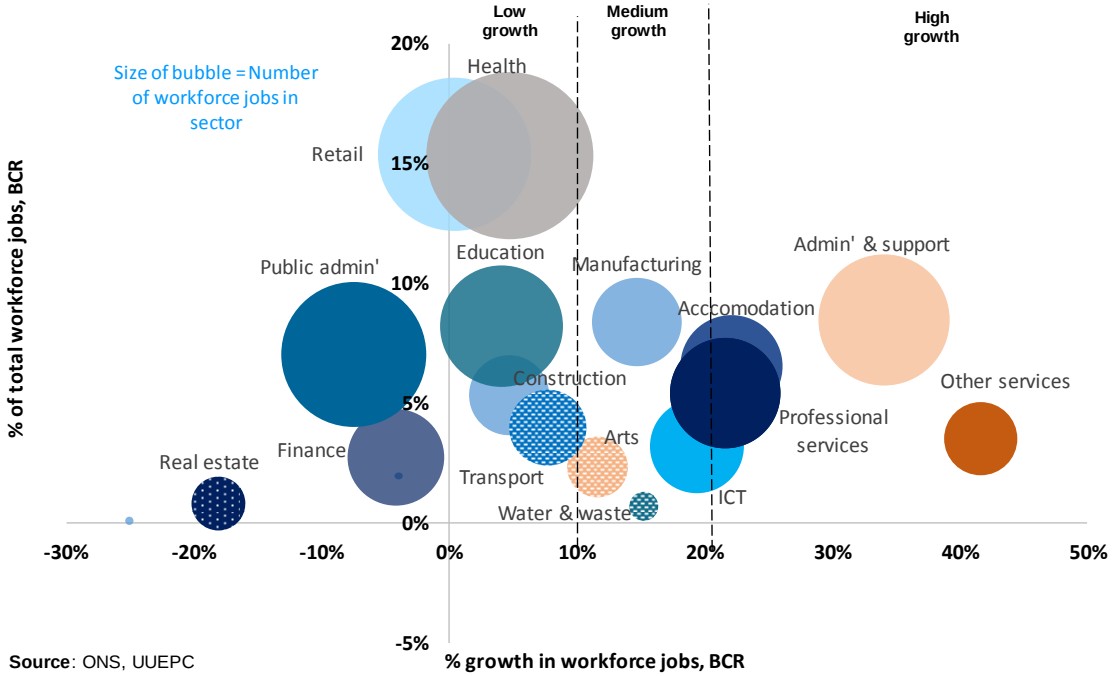
Source: ONS, UUEPC

11. Over the past five years employment in BCR has grown by 9%, equal to the average growth rate of NI. The rate of change across sectors in BCR followed a broadly similar trend to that of NI, with the exception of four sectors. That is, mining and quarrying (greater decline), manufacturing (smaller increase), electricity, air and gas (smaller increase), construction (smaller increase) and other service activities (smaller increase).

12. It is important to put in context sector growth rates with the size of a sector. For instance, some sectors may have experienced strong growth but remain relatively small in terms of number of jobs (e.g. electricity, gas and air). Whereas, other sectors may have experienced low growth but as they are large sectors generated a substantial amount of jobs (e.g. human health and social work).

13. The figure overleaf illustrates sectoral growth over the period five year period 2012-2017, against the size of the sector in job terms.

Figure 2.3: Workforce jobs growth by sector (1-digit) and number of jobs (workplace based), BCR (2012-2017)

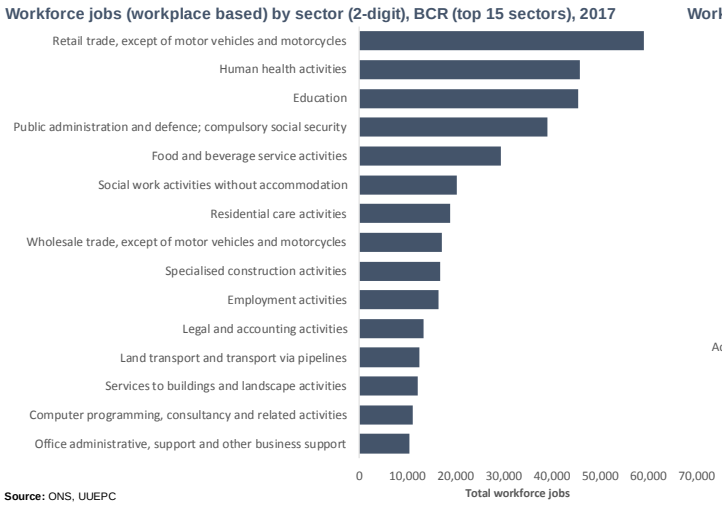


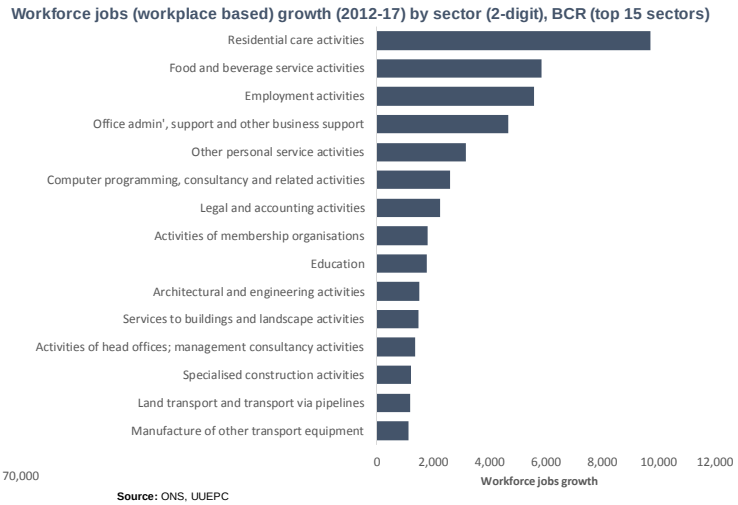
14. There has been strong growth in some medium to small sized sectors, which have a relatively low concentration within BCR workforce namely administration and support; professional services and accommodation and food. On the other hand some of the larger employment sectors within BCR have experienced low growth (wholesale and retail, health and social work and education) or a decline in growth (public administration).

Workforce sector structure (SIC, 2-digit)

15. A more detailed outline of BCR workforce using 2-digit SIC indicates retail trade (except trade of motor vehicles and motorcycles) is the largest sub-sector, accounting for 58,970 jobs. This is followed by three public sectors; human health activities (45,700); education (45,390) and public administration and defence (38,960).

Figure 2.4: Workforce jobs (workplace based) by sector (top 15 2-digit sectors), BCR (2017)





16. Other large sectors in BCR include food and beverage service activities (29,350); social work activities without accommodation (20,140); residential care activities (18,780); wholesale trade except of motor vehicles and motor cycles (17,060) and specialised construction activities (16,800).

17. Analysing growth in workforce jobs over the past five years, the following sectors have recorded the largest quantum of jobs:

    - **Residential care activities** experienced the largest increase in net additional jobs over the period 2012-2017. The number of workforce jobs within BCR more than doubled (107%), contributing an additional 9,730 jobs to BCR. This growth is indicative of NI's ageing population requiring support services.

    - **Food and beverage service activities** contributed the second largest quantum of net additional jobs in BCR from 2012-2017. The number of jobs increased by 5,850 over the period 2012-2017, which represents growth of 25%.

    - **Employment activities** increased by 52% generating an additional 5,590 jobs over the past five years. It is important to note the structure of this sector. As the sector is largely comprised of businesses offering recruitment services, growth will include temporary workers who are employed by recruitment agencies but in reality work in other sectors.

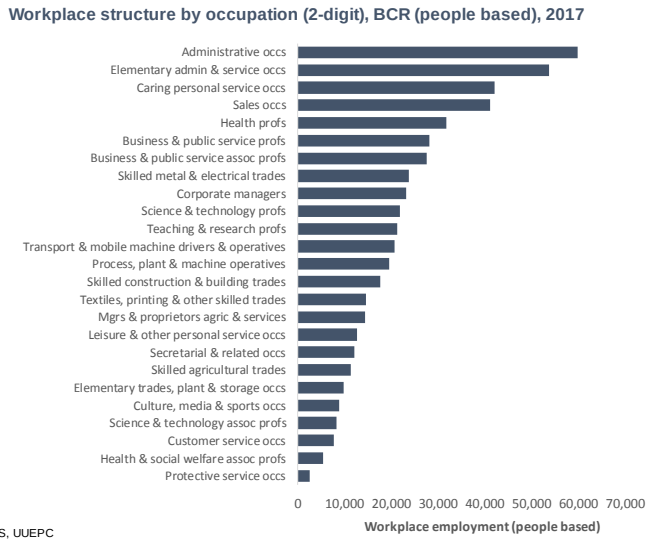
    - **Office administration and support activities** jobs have grown by 4,670 from 2012-2017, which represents an increase of 82% in the sector.

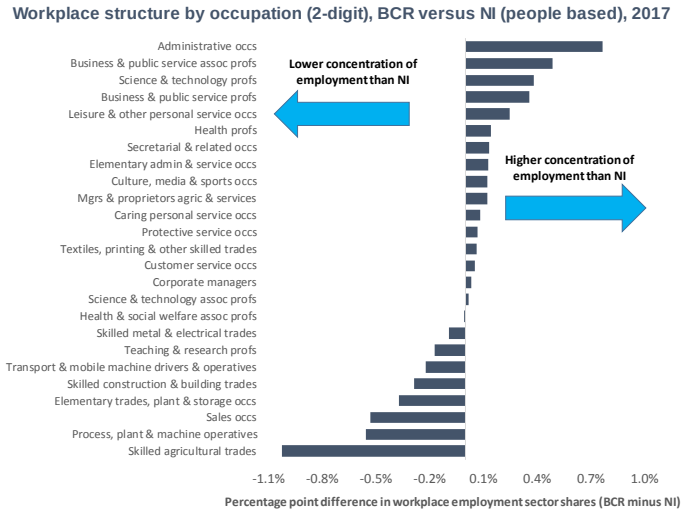
Occupation structure of workplace employment (SOC, 2-digit)

18. The largest occupation[4] within BCR is administrative occupations (59,750, 11% of total employment) followed by elementary administration and service occupations (53,760, 10% of total employment) and caring and personal service occupations (41,970, 8% of total employment).

[4] Occupation refers to the Standard Occupation Classification (SOC) framework wherein 2-digit SOC are broad occupation groupings and 3-sigit SOC are more detailed.

Figure 2.5: Workplace based employment by occupation (2-digit) BCR relative to NI (people based) (2017)



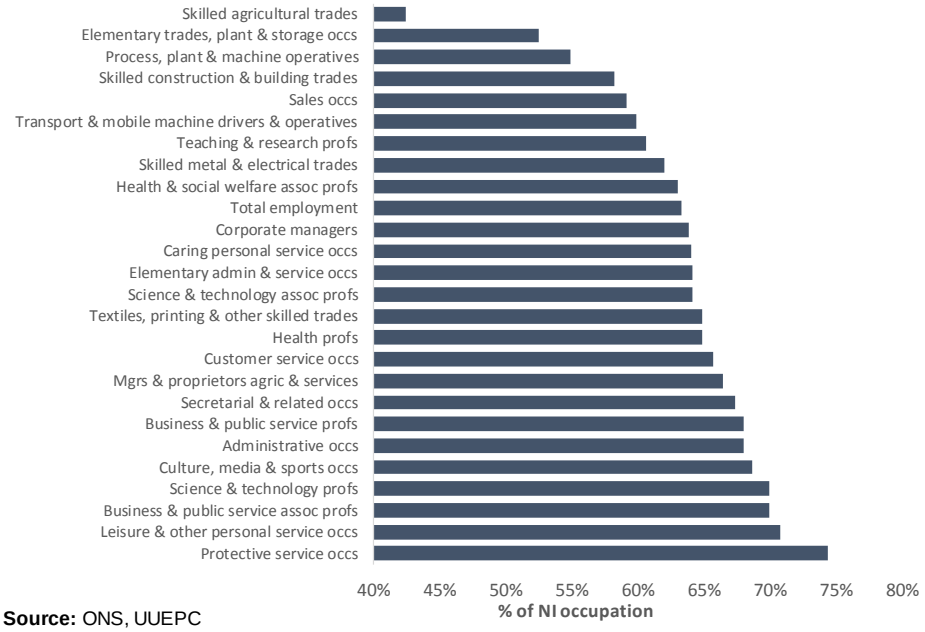


Source: ONS, UUEPC

Source: ONS, UUEPC

19. BCR accounts for two thirds (63%) of total employment in NI therefore it is unsurprising that the occupation structure is similar to the NI average. The largest differences occur in administrative occupations (BCR has a higher concentration of employment) and skilled agriculture trades (BCR has a relatively lower concentration of employment).

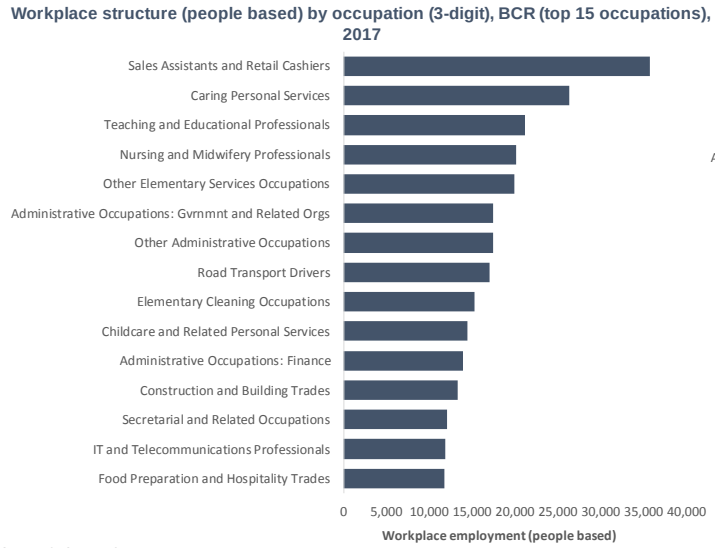
Figure 2.6: Workplace based employment by occupation (2-digit), BCR as proportion of NI (people based) (2017)



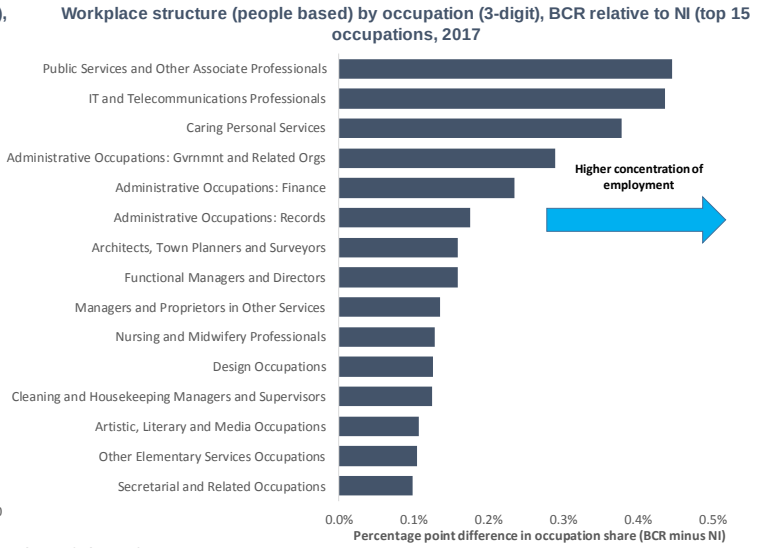
Source: ONS, UUEPC

20. Using more granularly defined occupation classifications (3-digit) the largest three sub-occupations within BCR workplace are: sales assistants (35,770); caring personal services (26,300); and teaching and educational professionals (21,170).

Figure 2.7: Workplace based employment by occupation (top 15 3-digit occupations), BCR relative to NI (people based) (2017)



Source: ONS, UUEPC



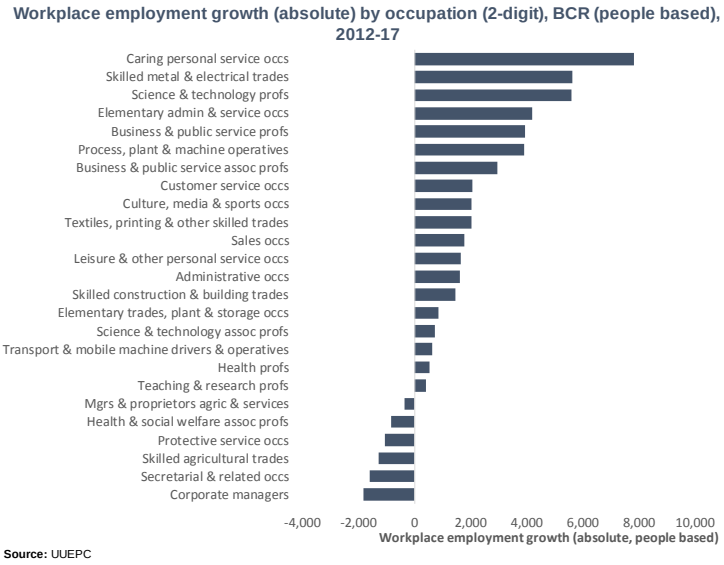
Source: ONS, UUEPC

21. **Relative to the NI average BCR has a higher concentration of people working as: public services and other associate professionals; IT and telecommunications professionals; and caring personal services.** It is important to contextualise the percentage point differences to highlight structural variances between NI and BCR. For example, while the concentration of public services and other associate professionals is only 0.4% above the NI average, the overall NI employment within this occupation would have to increase by 40% to meet the share of BCR.

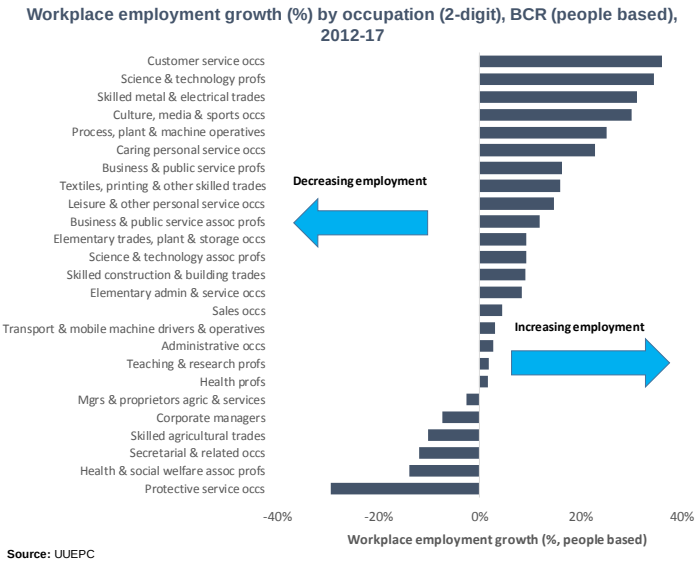
22. Similarly, detailed occupations where BCR represents lower relative concentration than the NI average include: agricultural and related trades (-1.0% less concentrated); sales assistants and retail cashiers (-0.5% less concentrated) and process operatives (-0.3% less concentrated). Although the lower concentration within agricultural and related trades can be easily interpreted, sales assistants and cashiers requires further insight. This detailed occupation represents the largest share of total employment within BCR, yet it is 0.5% less concentrated relative to the NI average. This can be explained by the **larger spread of employment opportunities across sectors available within BCR,** relative to council areas outside BCR. A lack of diversity outside BCR results in a higher concentration of a staple occupation such as sales assistants and retail cashiers.

23. **The fastest growing occupation within BCR over the past five years is customer service,** which has grown by 36%. The next two fastest growing occupations over the period are science and technology professionals, which grew by 35%, and skilled metal and electrical trades, which grew by 31%. Although caring and personal services is the sixth fastest growing occupation in percentage terms, it generated the largest increase in absolute terms (+7,810) over the period 2012-2017.

Figure 2.8: Workplace based employment growth by occupation (2-digit), BCR (people based) (2012-2017)



Source: UUEPC



Source: UUEPC

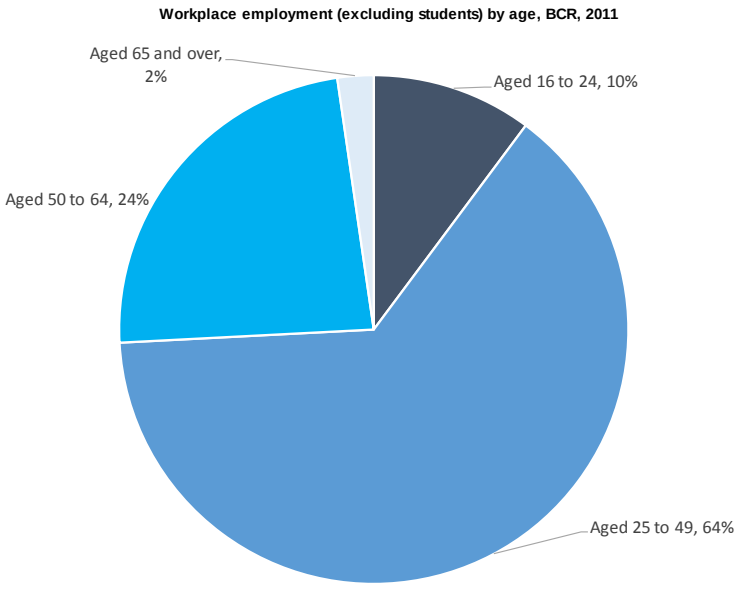
24. Analysing more granular occupation classifications (3 digit), caring personal services created the most jobs in absolute terms, accounting over one tenth (13%) of total employment growth in BCR over the 2012-2017 period. This is followed by other elementary service occupations (12%) and IT and telecommunication professionals (10%).

Age structure of workplace employment

25. The age distribution of BCR workforce is almost identical to the NI average. Approximately 64% of BCR workforce are aged 25-49, likewise 64% of the NI workforce fall within the same age bracket. A further 10% of the BCR workforce are under 25 years of age, equal to the NI figure. This illustrates the **upward trend of participation in tertiary level education. Therefore, young people are entering the workforce when they are slightly older.**

26. Finally, 24% of those employed in BCR are over 50 years old (same as the NI average) and 2% are aged 65 and older (same as the NI average). This suggests **BCR will have to replace retired workers at a similar rate to the NI average.**

Figure 2.9: Workplace based employment by age, BCR versus NI (2011)[5]



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

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Note: Based on those aged 16-74 in employment, excluding students

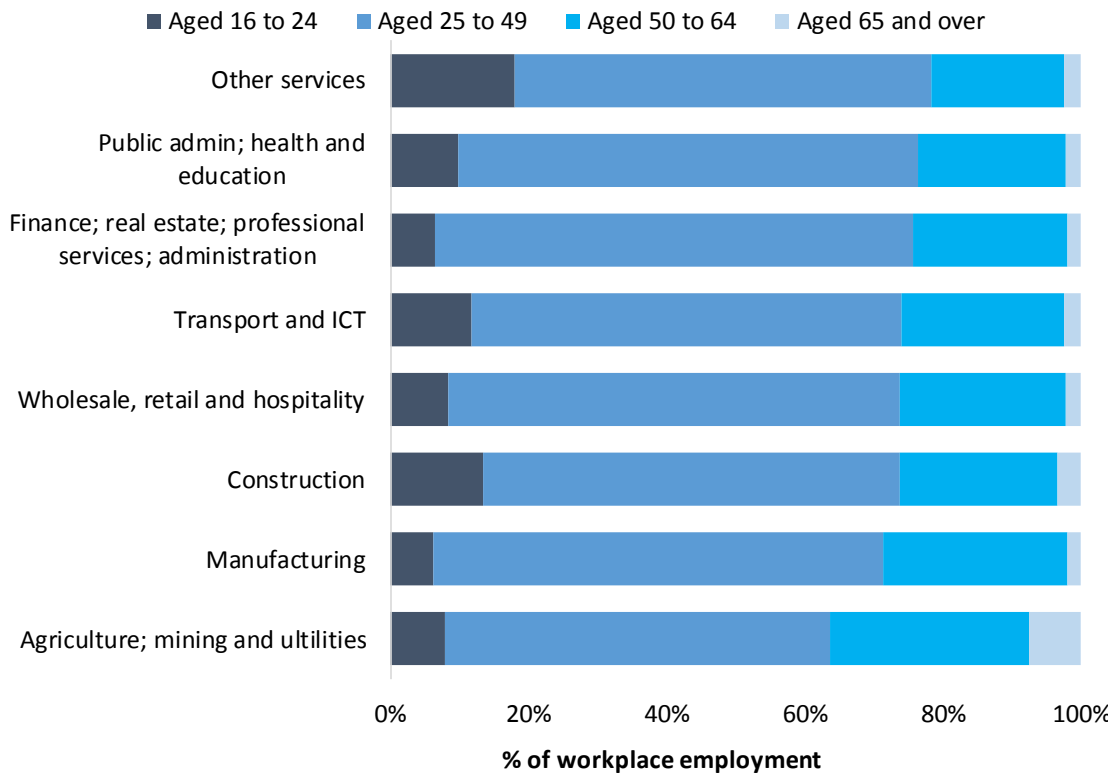
27. Over one in four (26%) people employed in BCR are over 50 years old.The proportion of employment comprised of those aged over 50 in BCR is just over one in four (26%). However, this figure varies across each of the LGDs which comprise BCR. For example, in Ards and North Down the proportion of employment accounted for by those aged over 50 is just under one third (30%), the highest of all LGDs. Whereas, in BCC the same figure is 23%, the lowest of LGDs within BCR.

28. The age structure within sectors in BCR remains broadly similar to the NI average. However, comparing the age structure across sectors highlights differences. For example, an amalgamation of the agriculture, mining and quarrying and utilities sectors represents the oldest workforce, 36% of people employed are over 50 years old. This is followed by public services, where 29% of the people employed in the sector are over 50 years old. Therefore, within the BCR economy these sectors will require a higher level of demand to replace retiring workers.

29. In contrast, retail and hospitality have the youngest age profile in BCR with 18% of people employed being aged 16-24. This suggests a relatively lower skills demand with regard to replacing retiring workers.

[5] A full list of age profiles across each of the LDG's within the BCR and relative to NI is provided in Annex D1 and Annex D2 respectively.

Figure 2.10: Workplace based employment by age and sector (1-digit), BCR (2011)[6]



Source: NI Census 2011
Note: Based on those aged 16-74 in employment, excluding students

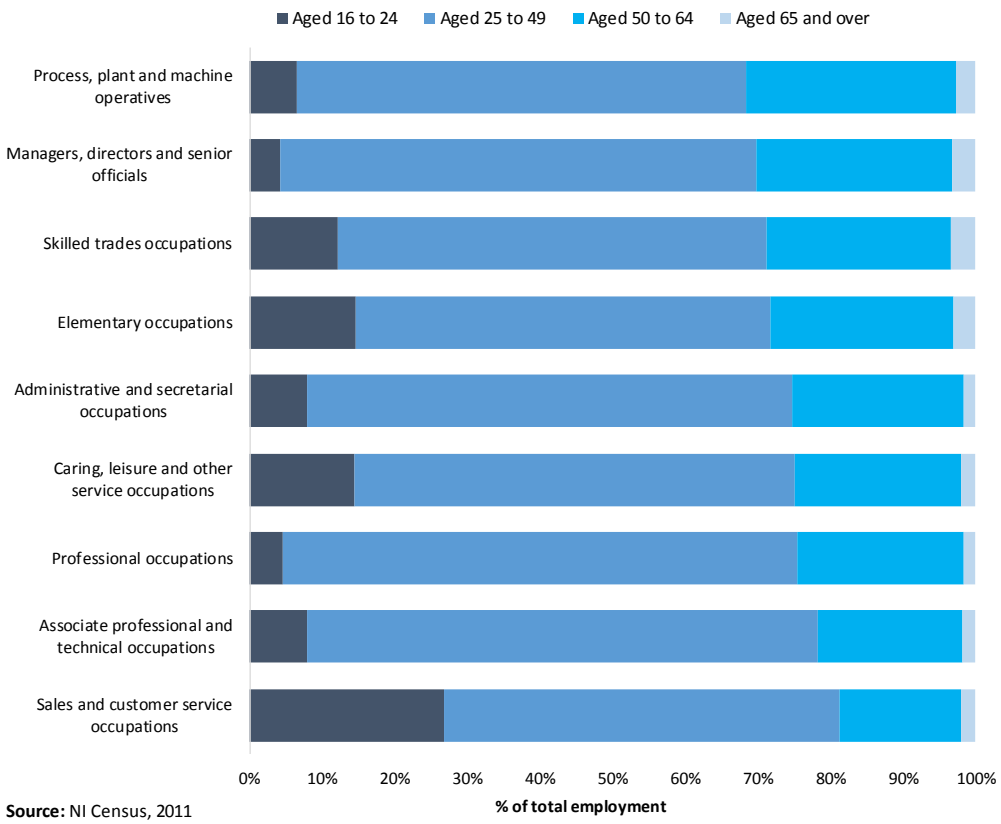
30. Workplace age structure differs across occupations in BCR. Plant, process and machine operatives have the oldest age profile (32% over 50 years old). Managers, directors and senior officials and skilled trade occupations are also comprised of a relatively large number of mature workers, with 30% and 29% respectively aged over 50.

31. Aligning to the trend of younger workers previously identified within the wholesale and retail sector, sales and customer services occupations are the youngest occupation, 27% of those employed being under 25 years old. This occupation is 12 percentage points higher than the second largest occupation (elementary occupations) within those aged under 25. Therefore it is significantly higher than any other occupation.

32. The age profile across sectors follows a broadly similar pattern in each of the LGDs which complete the BCR.

[6] A full list of age profiles by sector for each LGD which comprises BCR is provided in Annex D3

Figure 2.11: Workplace based employment by age and occupation (2-digit), BCR (2011)[7]



Source: NI Census, 2011

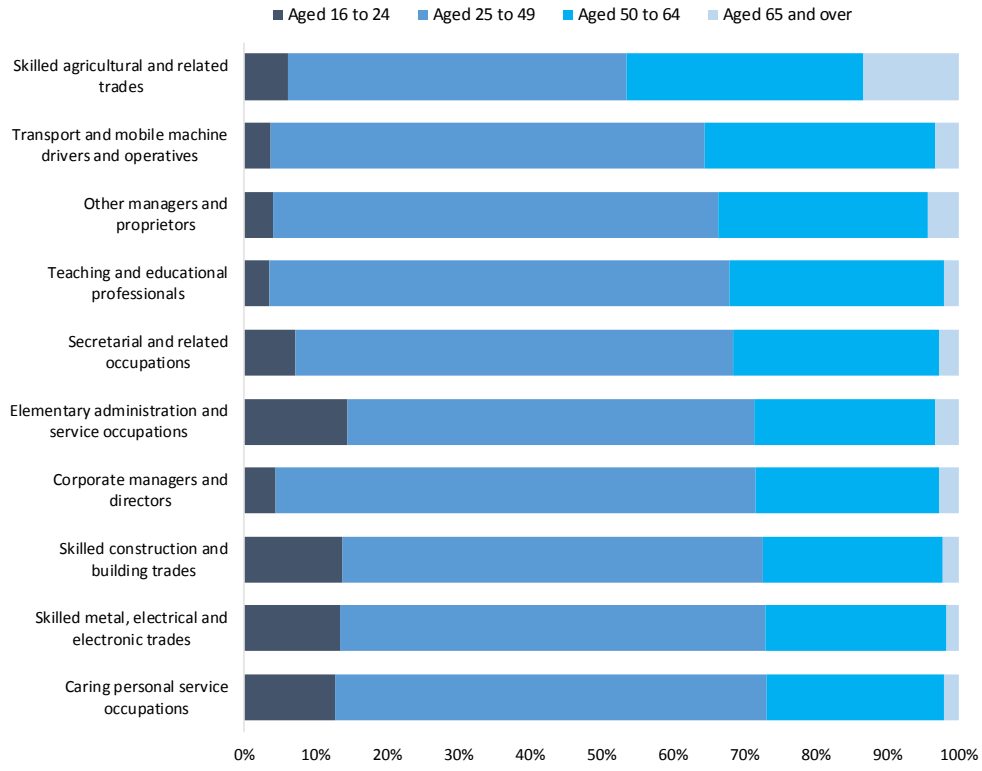
Note: Based on those aged 16-74 in employment, excluding students

33. Analysing workplace occupational age structure at a more granular level (3-digit) highlights skilled agricultural and related trades has the highest proportion of older workers (46% aged over 50). This occupation is 10 percentage points above the second largest occupation (transport and mobile machine drivers) within the over 50s age bracket. This indicates there is a high concentration of older workers relative to other detailed occupations. However, it is important to note the skilled agriculture and related trade occupation only accounts for 2% of the overall BCR workforce.

34. The age profile across occupations follows a broadly similar pattern in each of the LGDs which complete the BCR.

[7] A full list of age profiles by occupation for each LGD which comprises BCR is provided in Annex D4

Figure 2.12: Workplace based employed aged over 50 by sector (top 10 2-digit sectors), BCR (2011)



Source: NI Census, 2011

Note: Based on those aged 16-74 in employment, excluding students

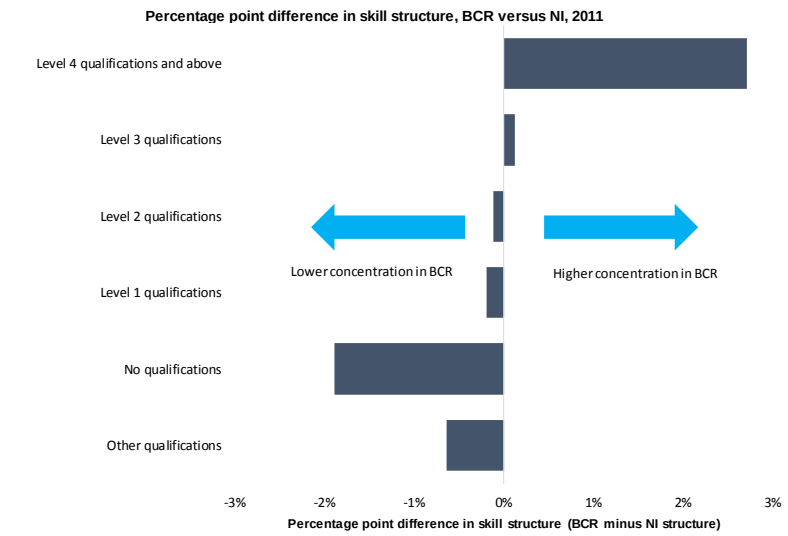
35. On the other end of the scale, the detailed occupation with the largest proportion of workers under the age of 25 is sales occupations (27%) followed by customer service occupations (26%). This follows the previously outlined trends of younger workers concentrated within wholesale and retail sector.

Workplace skills structure

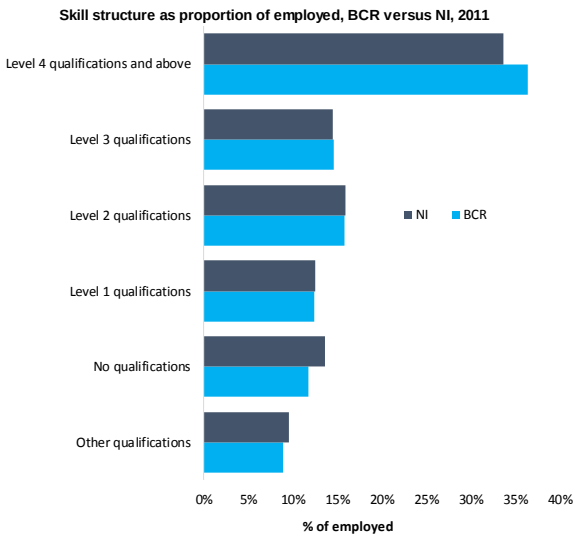
36. **The skills structure of BCR's workforce is broadly similar to the NI average.** At the higher end of the skills spectrum the share of workers with tertiary level education is over one third (36%), compared to 34% in NI as a whole. It is important to note **the figure for BCR is skewed by the high weighting of tertiary level education within the BCC workforce.** That is, over two-fifths (44%) of people employed in BCC have achieved a tertiary level qualification, compared to 34% or below for the other council areas which complete BCR area.

37. **The BCR workplace has a lower proportion of workers with low qualifications** (33% NQF level 1 or below), **relative to the NI average** (36% NQF level 1 or below). However, the figure for BCR is skewed downwards by the relatively small proportion (26%) of jobs in BCC wherein the highest level of qualification is below NQF level 2.

Figure 2.13: Workplace based skills structure (NQF), BCR versus NI (2011)



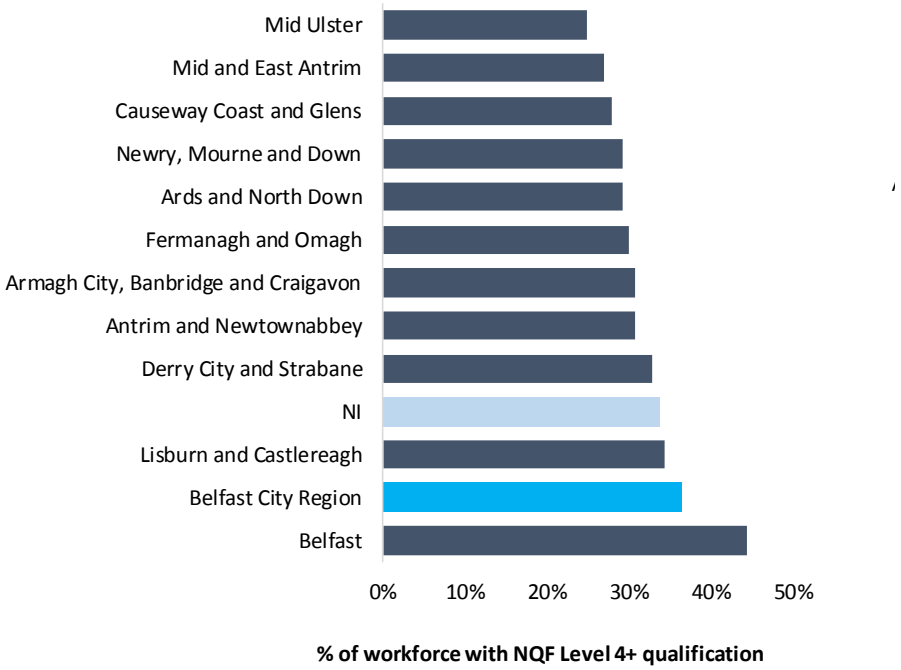
Source: NI Census 2011



Source: NI Census 2011

38. Within the LGDs which complete BCR there is diversity with regard to the skills profile. For example, 44% of the BCC workplace have a tertiary level qualification (NQF level 4+) compared to 27% of the Mid and East Antrim workplace.

Figure 2.14: Proportion of workplace employment achieving NQF level 4+, LGDs (2011)[8]



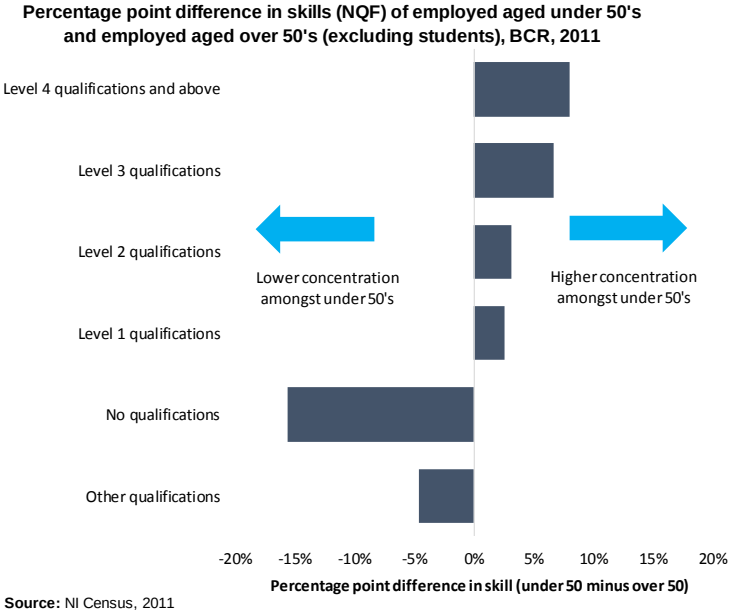
Source: NI Census 2011

39. Analysing the distribution of low skills within BCR some significant differences are evident. For example, within BCC 26% of the workplace employment have a highest level of qualification below NQF level 2, compared to 38% in Mid and East Antrim workplace.

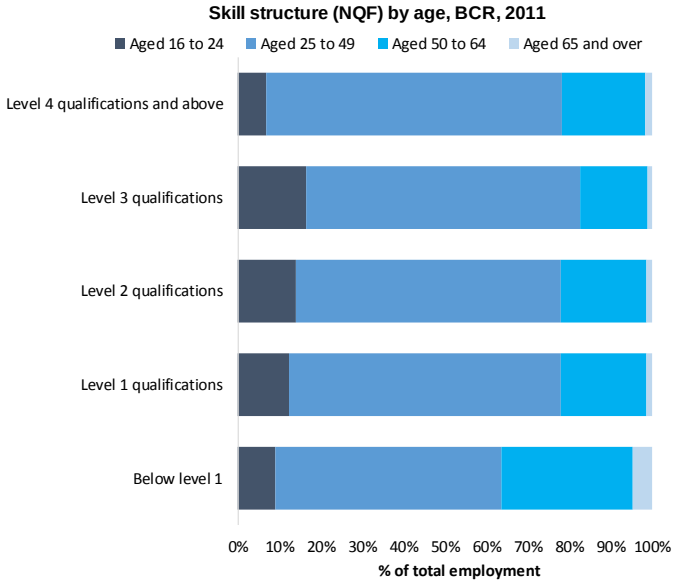
[8] A full list of the skills profile across LGDs which constitute BCR relative to the NI average is provided in Annex E1-E6.

40. The skills profile within BCR varies significantly across age brackets. **Younger workers tend to be higher qualified relative to older workers, aligning with the upward trend in education participation.** On the other hand, older workers tend to be associated with a lower qualification structure compared to young people, which is reflective of how employer attitudes towards qualifications have changed over time.

Figure 2.15: Workplace based skills structure (NQF) by age and aged over 50 relative to under 50, BCR (2011)



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

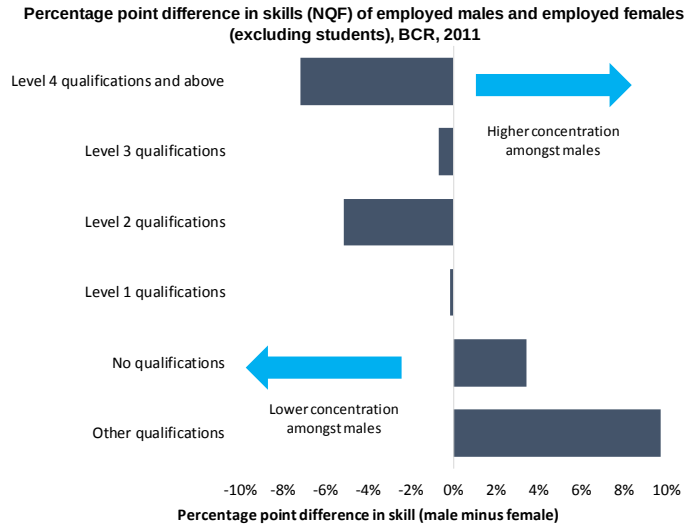


Source: NI Census 2011
Note: Based on those aged 16-74 in employment, excluding students

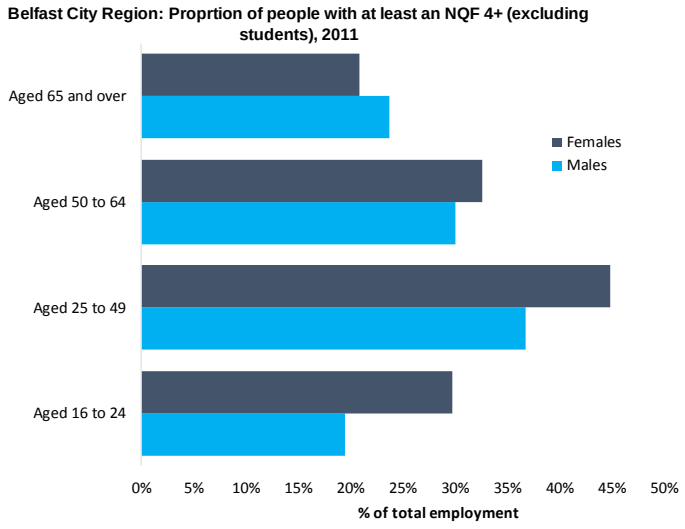
41. As lower qualified workers are highly weighted in older age categories and younger workers are associated with higher qualifications, it would suggest the **BCR workplace skills profile will naturally improve as persons with lower qualifications move from employment into retirement.**

42. Further analysis by gender highlights differences between male and female skill profiles across BCR. For instance, employed males aged 65 and above within BCR are more likely to hold a tertiary level qualification relative to females of the same age (24% males versus 21% females). However, in each age bracket below 65 females are more likely to hold a degree level qualification.

Figure 2.16: Workplace based skills structure (NQF) by age and sex, BCR (2011)[9]



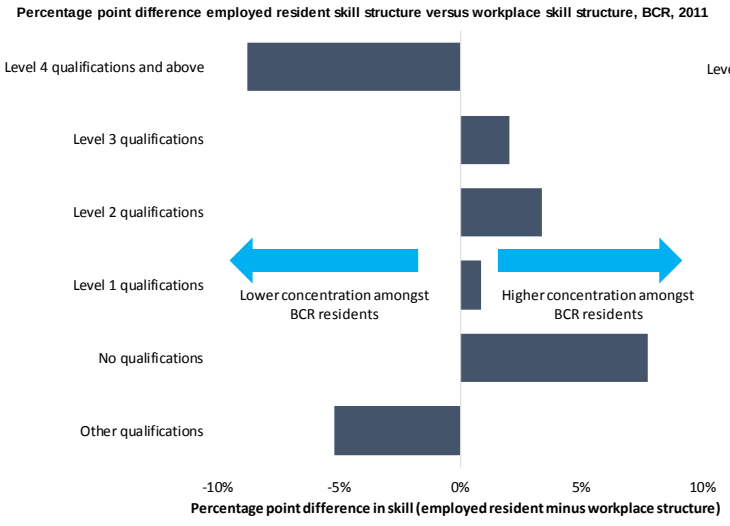
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students



Source: NI Census 2011
Note: Based on those aged 16-74 in employment, excluding students

43. **Comparing the skills profile of employed people living within BCR against BCR workplace employment draws out a number of contrasts.** For example, 28% of BCR working age residents have achieved NQF level 4+ qualifications. Whereas 36% of people employed in jobs located in BCR have achieved at least the same NQF level.

Figure 2.17: Resident versus workplace skills (NQF), BCR (2011)



Source: NI Census 2011

Source: NI Census 2011

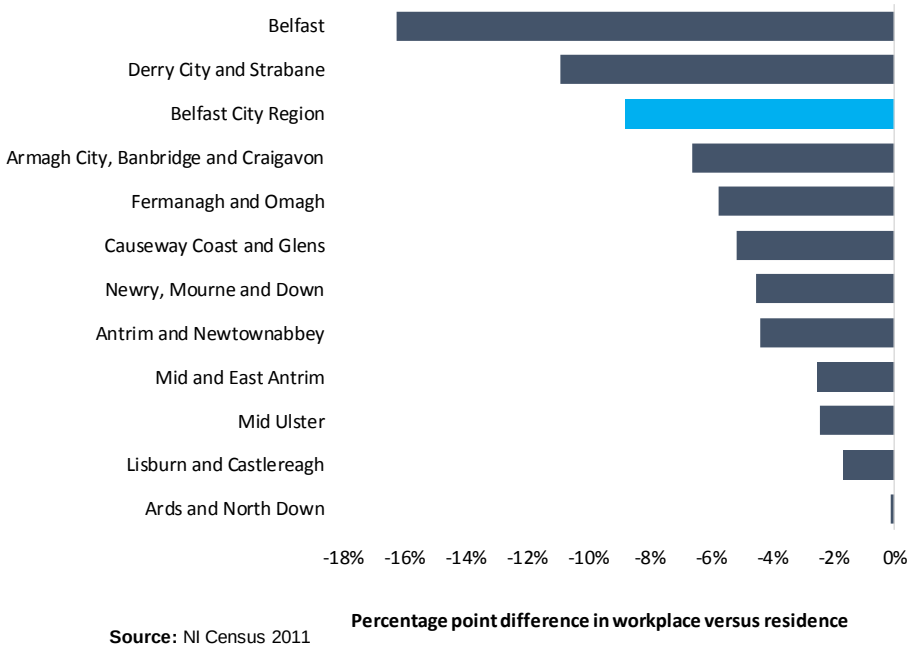
44. Over one in ten (12%) BCR workforce have no qualifications whilst almost one fifth (19%) of BCR residents have no qualifications. These trends are worth considering in the context of employability challenges as a skills mismatch between residents and jobs can reduce resident employment opportunities, especially for those at the bottom end of the skills spectrum.

45. The difference in the skills profile between workplace and resident employment are varied across the constituent LGDs which make up BCR. For example, in BCC difference

[9] A full list of the skills profile by age and gender across LGDs which constitute BCR relative to the NI average is provided in Annex E1-E6.

between the proportion of people with a tertiary qualification (NQF level 4+) working within BCC and employed residents of BCC is 16 percentage points. This compares to a percentage point difference of just 0.1 in Ards and North Down.

Figure 2.18: Difference in resident versus workplace, NQF level 4+ qualifiers, LGDs (2011)[10]

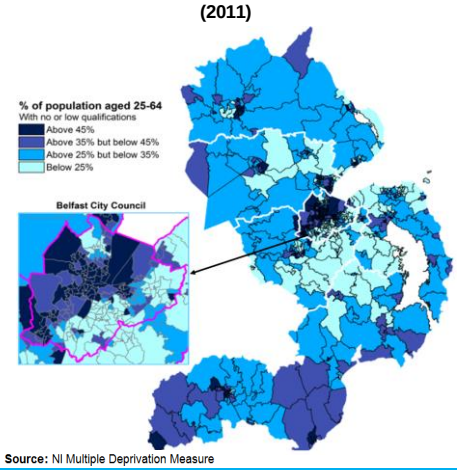


Source: NI Census 2011

46. A spatial analysis highlights stark differences between the skill levels of inner city BCC residents and the skills of people living in the surrounding area. This is particularly noteworthy as areas close to the centre of Belfast have a particularly low skills profile yet host many of the largest companies driving BCC high level skills demand.

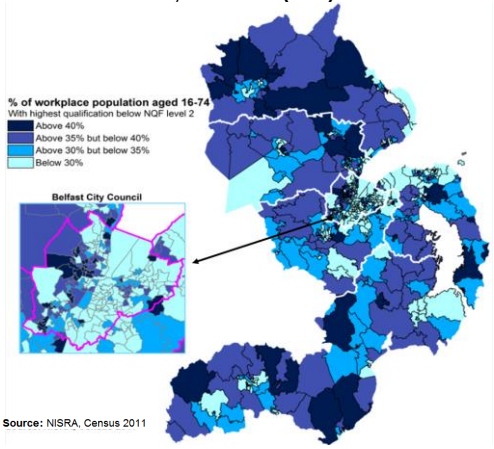
Figure 2.19: Resident skills versus workplace skills, BCR (2011)[11]

Resident population aged 25-64 (%) with no or low qualifications, BCR SOAs (2011)



Source: NI Multiple Deprivation Measure

Workplace population aged 16-74 (%) with highest qualification below NQF level 2, BCR SOAs (2011)



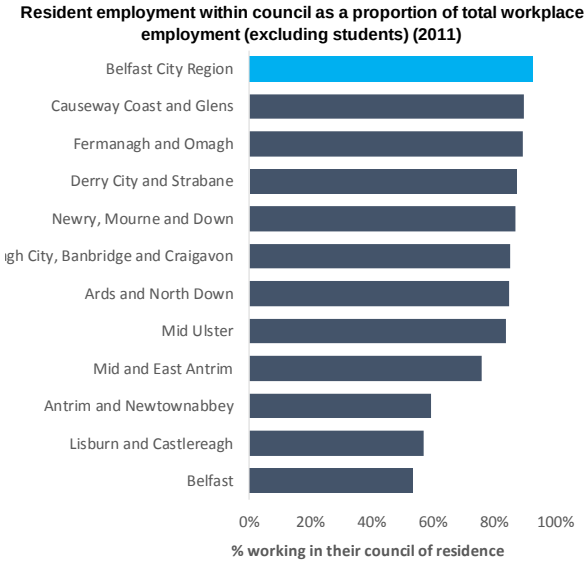
Source: NISRA, Census 2011

[10] A full list of the skills profile of LGDs comprising BCR is provided in Annex E1-E6.
[11] Additional maps relating to skills of population are included in Annexes L3 and L4.

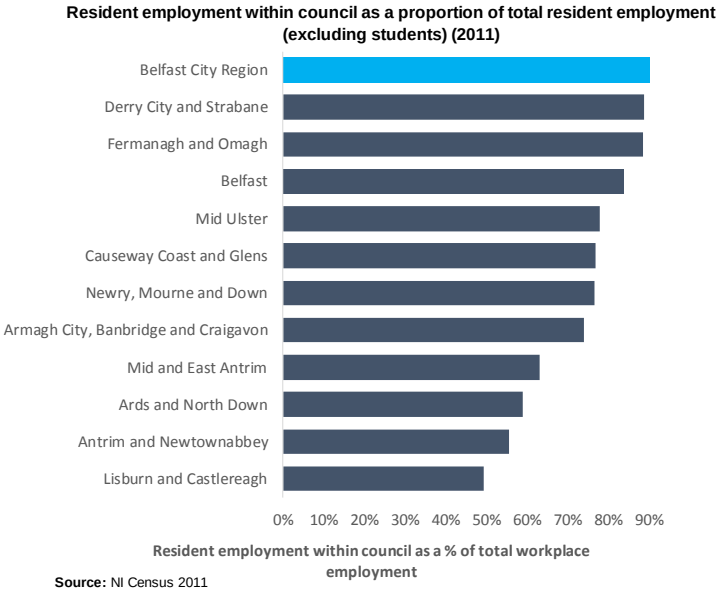
Commuting patterns

47. Much of the BCR workforce lives within the BCR area. Approximately 93% of people that are employed within BCR, also live within BCR. Only 3% of people who live in the BCR area commute to work in other LGDs.

Figure 2.20: Commuting incidence by LGD (2011)[12]



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

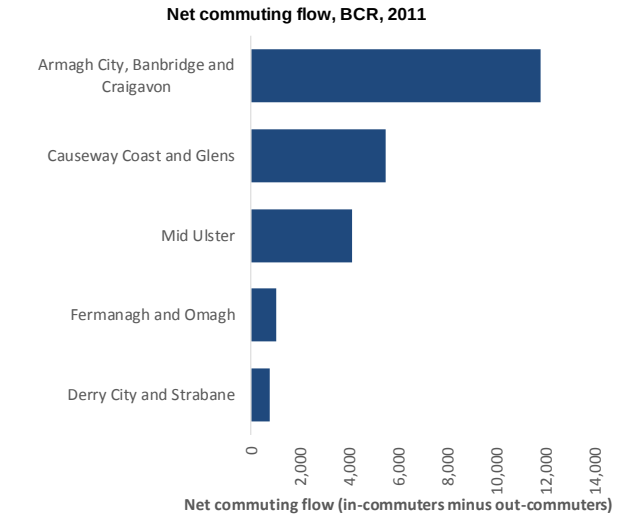


Source: NI Census 2011
Note: Based on those aged 16-74 in employment, excluding students

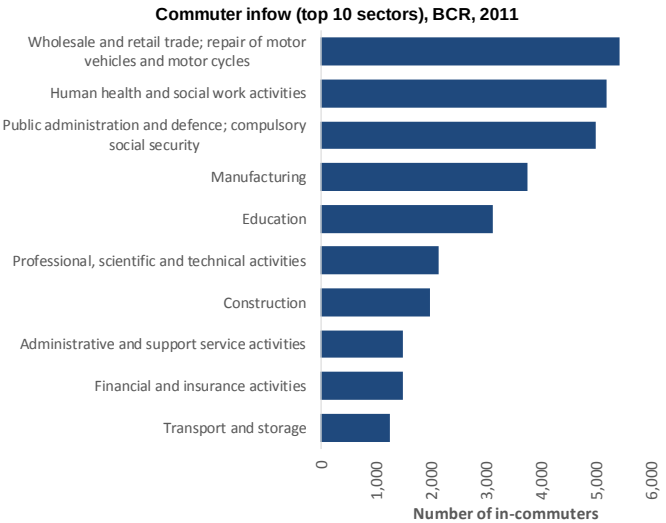
48. The commuting incidence across LGDs which comprise BCR varies. For example, BCC residents make-up 53% of total workplace employment within BCC. Whereas, Causeway Coast and Glens (CC&G) residents account for 90% of total workplace employment within CC&G. This is indicative of BCC acting as a sub-regional employment hub.

49. **BCR also has a net-commuting inflow against the LGDs which make up the remainder of NI.** The largest inflows are from; Armagh City, Banbridge and Craigavon (11,800); CC&G (5,470); and Mid Ulster (4,130).

Figure 2.21: Commuting patterns by sector (1-digit), BCR (2011)



Source: NI Census 2011



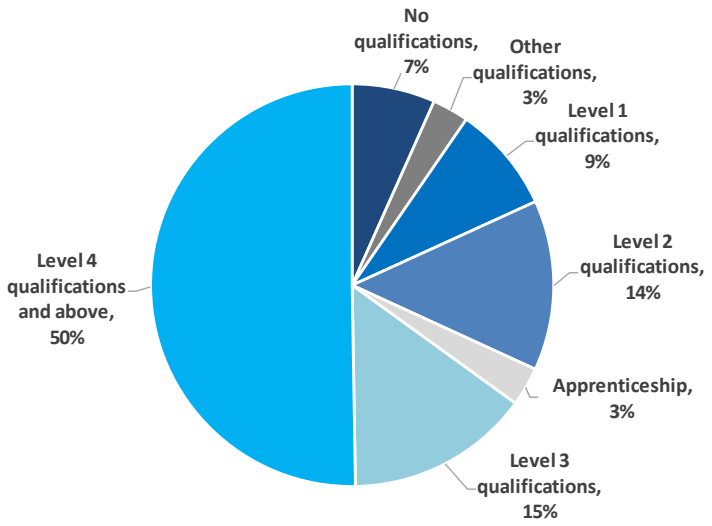
Source: NI Census 2011

[12] A full list of in-commuter versus resident workers skills profile is provided in Annex F1.

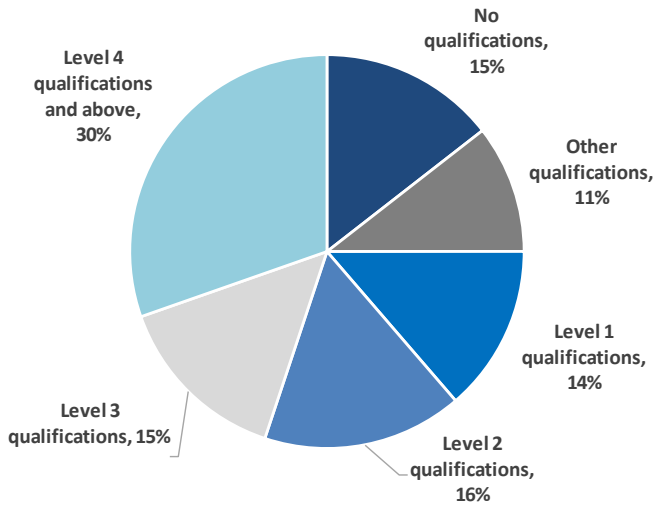
50. Individuals commuting into BCR are most likely to work in sectors such as wholesale and retail, human health and social work or public administration and defence.

51. The skills profile of in-commuters to BCR relative to the skills profile of those who live and work within BCR indicates the area is a net importer of skills. For instance, 50% of total in-commuters have achieved a tertiary level qualification whereas only 30% of BCR working residents have achieved this level.

Figure 2.22: Commuting patterns by skill (NQF), BCR (2011)



Source: NI Census, 2011



Source: NI Census, 2011
Note: Apprenticeships are included as other qualifications

52. At the lower end of the skills spectrum, 15% of the BCR residents have no formal qualifications whereas only 7% of those who commute to BCR for work have no formal qualifications.

53. The difference between the skills profile of in-commuters and working residents is more pronounced in some council areas which constitute the BCR. For example, in Ards and North Down half (50%) of total in-commuters hold a tertiary level qualification whereas only 27% of working residents hold this qualification, a 22 percentage point difference.

54. In Mid and East Antrim one fifth (20%) of in-commuters have NQF level 1 or below qualifications, compared to one third (33%) of those who live and work within Mid and East Antrim, a 13 percentage point difference.

Key points and policy remarks

Key points

55. There are a number of key points which have been highlighted in this chapter:

- BCR accounts for 63% of total workforce jobs in NI, and has accounted for 64% of job growth in NI over the past five years.
- BCR has a higher share of employment in sectors that are highly skill intensive such as public administration, professional services and information communication relative to NI as a whole.
- Over the past five years many of the sectors which account for the largest proportion of employment in BCR (e.g. health, public administration and wholesale

and retail) have grown slowly or decreased. The fastest growing sector in absolute terms over the period was administration and support services (11,860).

- The industry structure varies significantly across LGDs which comprise BCR. The administration and support services sector accounts for 13% of jobs in BCC compared to 2% in Newry, Mourne and Down.
- The occupations which experienced the most rapid growth in absolute terms within BCR over the period 2012-2017 are caring and personal service occupations and skilled metal and electrical trades. In percentage terms, the fastest growing occupations were customer service occupations and science and technology professionals.
- Workplace employment in BCR is weighted towards high-level skills, with over one third (36%) of people working within BCR having achieved a tertiary level qualification (NQF level 4+).
- There are significant differences in skills across generations. That is, older workers are more likely to have low-level skills relative to younger workers. This implies the qualification profile of workers within BCR is likely to improve over time. In other words as older workers retire they will be replaced by younger workers with higher qualification levels.
- The skills profile of BCR residents is lower than the skill profile of those employed in BCR workplace. BCR has a net commuting inflow typically associated with high skilled individuals.

Policy remarks

56. The above data has a number of implications for policy:

    - The mismatch between the skills of residents and skills required for jobs within the BCR will lead to wider employability challenges. This is particularly acute amongst low-skilled residents who tend to be associated with lower levels of labour mobility.
    - The difference in industry composition across LGDs which comprise BCR (particularly BCC structure versus remaining LGDs in BCR) highlights the diversity of labour markets across the region. A limited supply of high skilled job opportunities outside BCC results in high commuter rates to BCC. Although BCR will continue to be reliant upon BCC to generate job opportunities (46% of total BCR workforce jobs are within BCC) this will have implications on wider economic policy. Over the medium-term it will be important to strengthen connectivity to BCC and consider measures to reduce congestion. Over the longer-term, creating demand outside BCC could help relieve pressure on the transport network and fit within an overarching policy aim of inclusive growth.

57. Although older people have lower levels of formal qualifications many have gained skills 'on the job'. This raises the issue of accreditation of workplace skills and a recognition of prior learning. Addressing this can improve the occupational mobility of older workers by enhancing their signalling power within the labour market. This is particularly important in some areas within BCR which have recently experienced job losses in the manufacturing sector.

3. Belfast City Region's economy: High growth scenario

Introduction

1. This chapter provides an overview of how BCR could potentially perform, if it is to achieve its economic objectives.

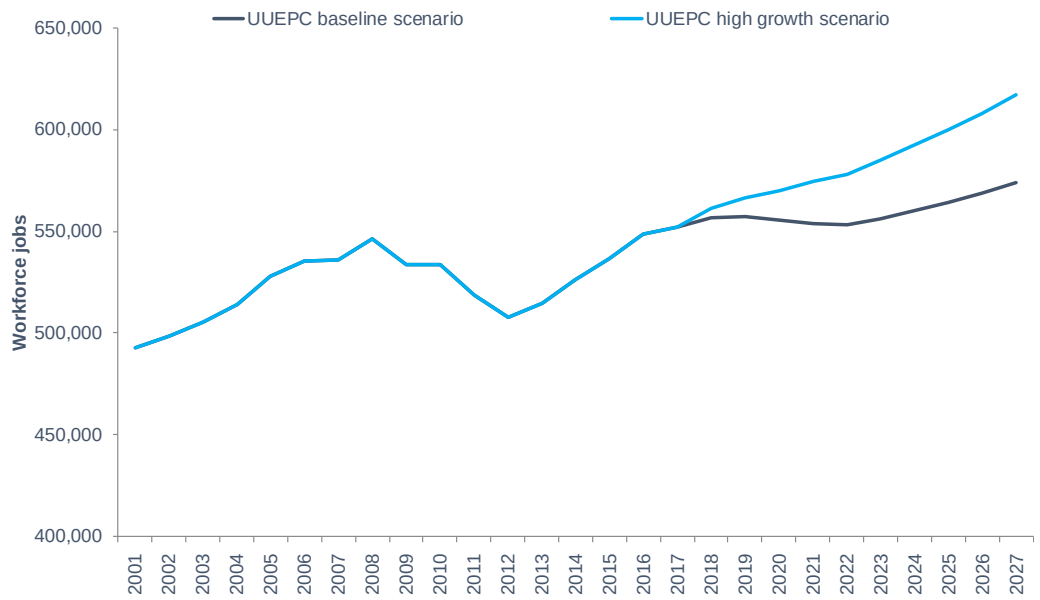
2. In summary, outputs from the high growth scenario are aligned to NI achieving future policy success aligning to targets set within the Programme for Government. At a sub-regional level the high growth scenario outputs are consistent with LGDs general economic ambitions, but not directly linked to specific LGD targets.

3. UUEPC has developed a set of forecasts for LGDs linked to our NI economic model. The model accounts for three potential scenarios: high growth scenario; baseline scenario and lower scenario. This chapter will focus on outputs from the high growth scenario[13].

Job creation

4. UUEPC estimates that under the high growth scenario employment in BCR has the potential to grow from 552,120 in 2017 to 617,170 in 2027. Although this is an ambitious rate of growth it is not inconsistent with growth rates achieved over the 2012-17 period.

Figure 3.1: Workforce jobs high growth scenario versus baseline scenario, BCR (2001-2027)



Source: UUEPC

[13] Outputs from the baseline scenario are provided in Annex A.

5. By 2027 it is estimated that total employment under the high growth scenario will be 43,350 jobs above the baseline. In other words, **under a high growth scenario the BCR economy is projected to create 3 times as many additional jobs than it would in a baseline scenario.**

Sector growth

6. The sectors expected to contribute the largest increase in jobs in absolute terms over the period 2017-2027 are: professional scientific and technical services (15,930); information and communication (10,250); and restaurants and hotels (7,600).

Table 3.1: Baseline scenario and high growth scenario job growth by sector (1-digit), BCR (2017-2027)

Industry	Total jobs 2017 baseline	Job growth (absolute terms) 2017-2027		Job growth (compund annual growth rate)	
		Baseline	High growth scenario	High growth scenario 2017-2027	Actual 2012-2017
Agriculture	10,850	-800	-410	-0.4%	-0.8%
Mining	560	+10	+10	0.2%	-5.6%
Manufacturing	46,400	-1,530	-270	-0.1%	2.8%
Electricity & gas	1,840	+280	+450	2.2%	11.6%
Water supply & waste	3,910	+290	+440	1.1%	2.9%
Construction	29,500	+1,970	+3,910	1.3%	0.9%
Wholesale & retail	85,140	+90	+910	0.1%	0.1%
Transport & storage	21,970	+1,630	+2,510	1.1%	1.5%
Restaurants and hotels	36,250	+4,510	+7,600	1.9%	4.1%
Information & communication	17,890	+3,290	+10,250	4.6%	3.6%
Finance & insurance	15,090	+410	+4,390	2.6%	-0.9%
Real estate	4,550	+240	+580	1.2%	-3.9%
Professional scientific & technical	30,060	+5,230	+15,930	4.3%	4.0%
Administrative & support services	46,750	+4,360	+6,930	1.4%	6.0%
Public admin & defence	38,960	-1,880	+750	0.2%	-1.6%
Education	45,390	+280	+1,300	0.3%	0.8%
Health & social work	84,620	+2,440	+6,670	0.8%	0.9%
Arts & entertainment	13,000	+770	+2,060	1.5%	2.2%
Other service activities	19,380	+90	+1,040	0.5%	7.2%
Total	**552,120**	**+21,700**	**+65,040**	**1.1%**	**1.7%**

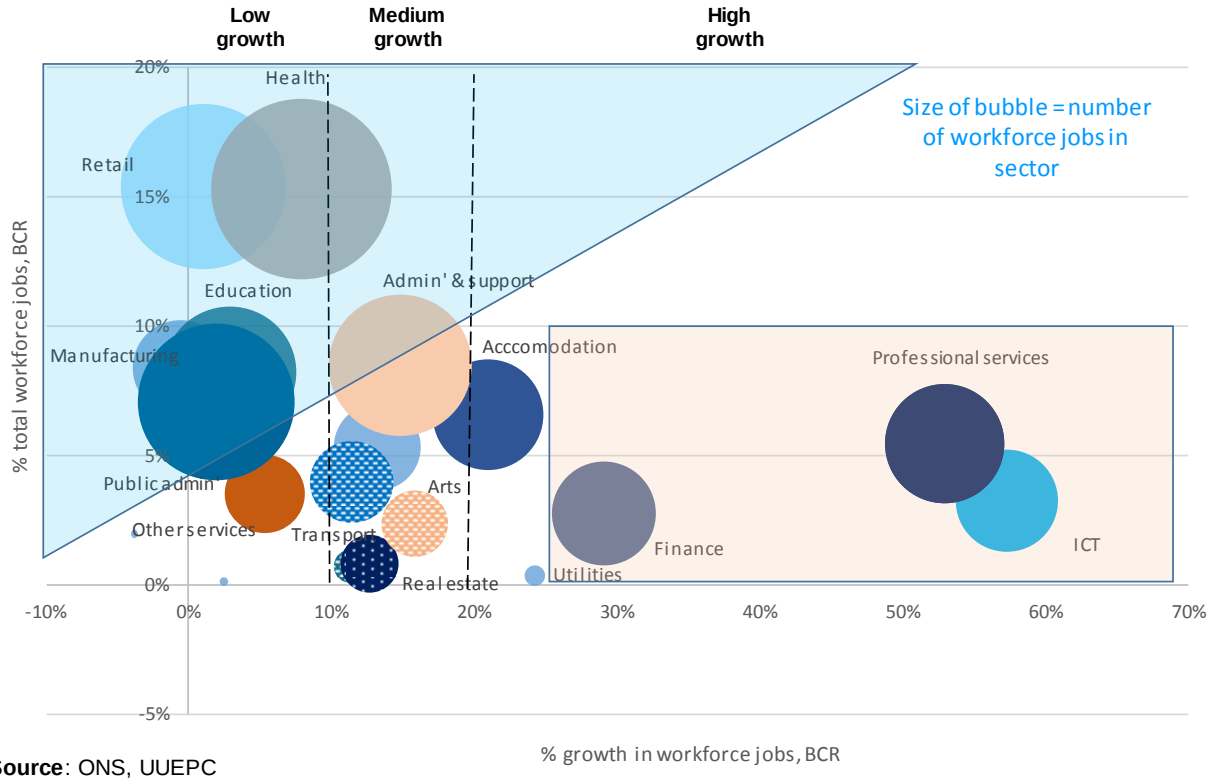
Source: UUEPC

Note: Figures may not sum to total due to rounding

7. Relative to the baseline, the additional 43,350 job impact by 2027 is generated primarily from the following sectors; professional scientific and technical services (10,690 above baseline); information and communication (6,960 above baseline); and health and social work (4,230 above baseline).

8. As depicted in the figure overleaf much of the job growth is concentrated in sectors which currently have a relatively small share of total jobs in BCR (e.g. professional services, information and communications and finance). **A number of high employment sectors within BCR such as health and social work and wholesale and retail, are forecast to grow moderately over the next ten years.** However, it is worth noting that even though slow growth rates are recorded in some of BCC's larger sectors, job growth in absolute terms is still significant (e.g. health).

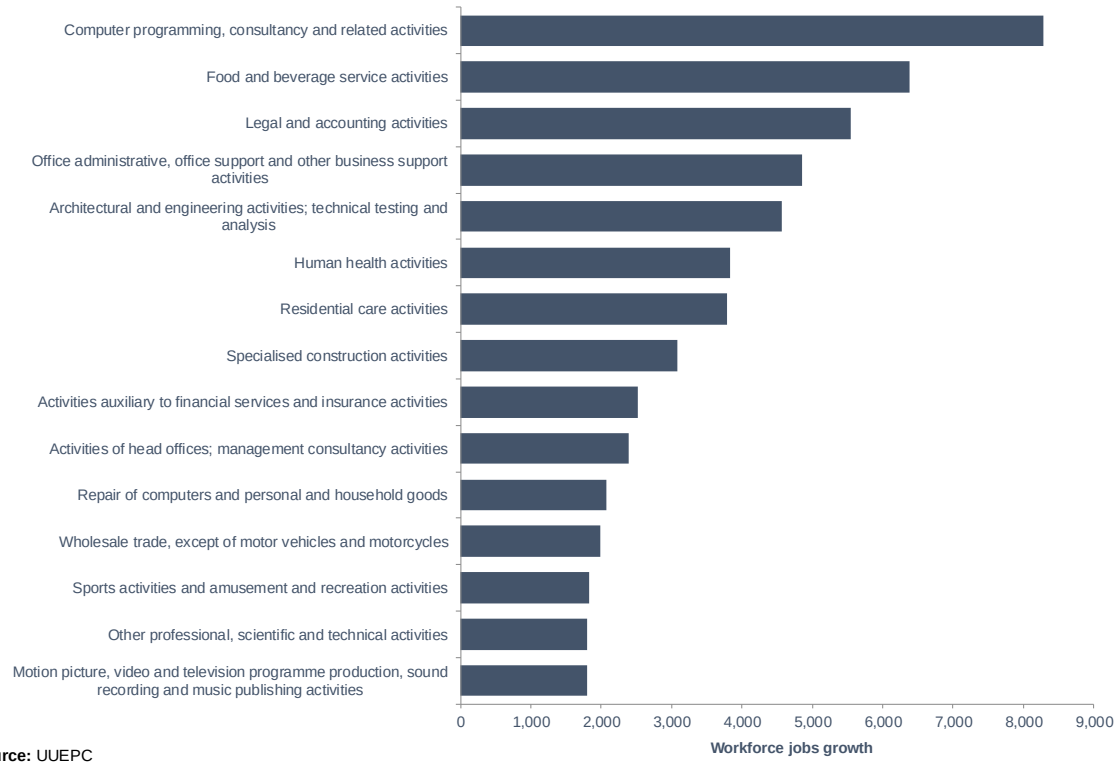
Figure 3.2: Workforce job growth by sector (1-digit) and number of jobs (workplace based), BCR (2017-2027)



Source: ONS, UUEPC

9. At a more detailed sectoral (2-digit) level, the largest growth is forecast in: computer programming (8,290); food and beverage service activities (6,390); legal and accounting activities (5,550), office administrative, office support and other activities (4,850); and architectural and engineering activities (4,570).

Figure 3.3: Workforce jobs by sector (top 15 2-digit sectors), BCR (2017-2027)

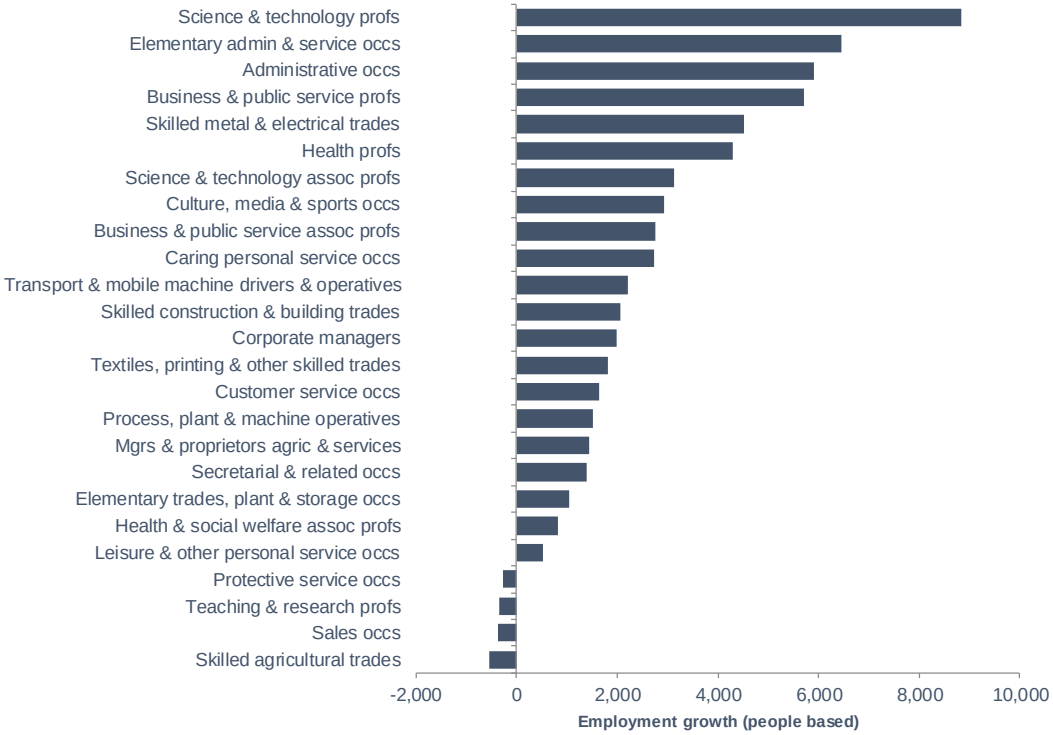


Source: UUEPC

Occupation growth (people based)

10. The following occupations are forecast to account for the majority of job growth over the next decade within BCR: science and technology professionals (8,640); elementary administration and service occupations (6,540); business and public services professionals (6,140); administrative occupations (6,030); and health professionals (4,270).

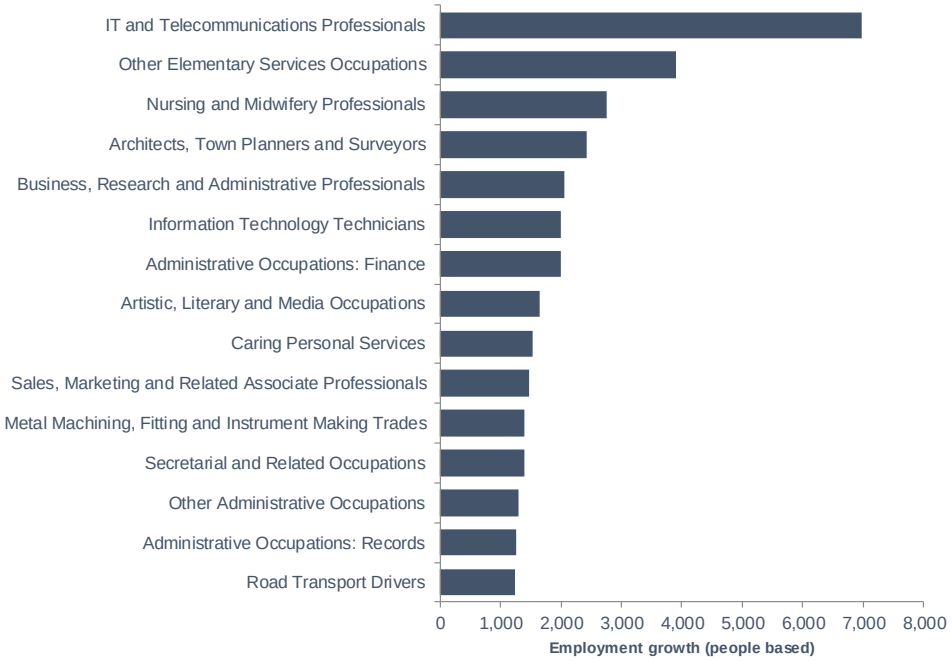
Figure 3.4: Workplace employment growth (people based) by occupation (2-digit), BCR (2017-2027)



Source: UUEPC

11. At a more granular occupation categories (3-digit) a detailed view of key growth areas within BCR labour market can be depicted. The detailed occupation forecast to account for the largest proportion of job growth in absolute terms is IT and telecommunications professionals (6,890). This is followed by other elementary occupations (3,990) and nursing and midwifery (2,740).

Figure 3.5: Workplace based employment growth (people based) by occupation (top 15 3-digit occupations), BCR (2017-2027)



Source: UUEPC

Key points and policy remarks

Key points

12. There are a number of key points which can be drawn from this chapter:

- The skills forecasting model is based on a high growth scenario which assumes implementation of successful policy initiatives.
- Under the high growth scenario BCR is projected to create 3 times as many jobs than forecast under the baseline scenario.
- Many of the staple sectors within BCR (e.g. wholesale and retail, health and public administration) are forecast to grow at relatively slow rates over the coming decade.
- The highest rates of job growth are forecast to be in the professional services and information and communication sectors.
- Occupations forecast to experience the highest growth rates are science and technology professionals, elementary administration and service occupations and business and public service professionals.

Policy remarks

13. The above data has a number of implications for policy:

- It is prudent to plan for skill needs in an aspirational nature based on the ambitions of economic policy. However, there is a risk of oversupplying skills if the aims of economic policy are not achieved. Although this involves a personal cost to individuals who have invested in their own skills development, the potential cost is lower compared to undersupplying skills. If businesses are unable to find the skilled labour required it depresses competitiveness, productive capacity and holds back future job growth.

- Although it is advised that skills policy should plan for success, it is important to have a measure in place to mitigate the effects of any potential oversupply of skills. This contingency planning could take many forms. For example, conversion courses for workers made redundant, training rights for young people unable to secure employment after graduation etc.

4. Skill requirements for tomorrow's economy – High growth scenario

Introduction

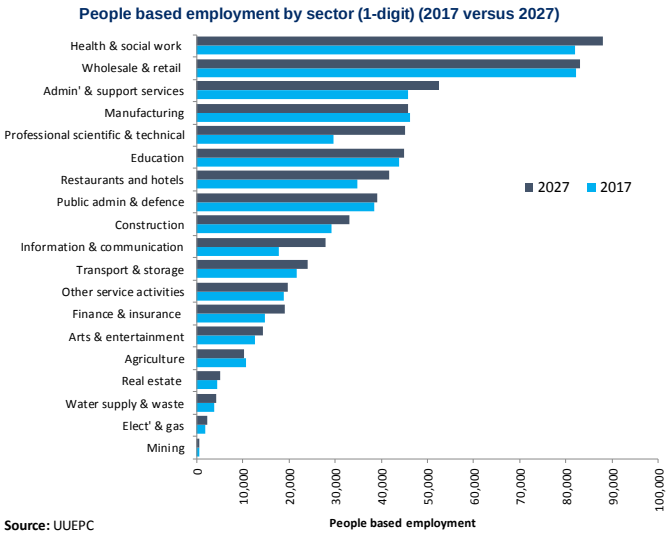
1. This chapter provides an overview of future labour demand under the high growth scenario outlined in the previous chapter.

People based employment growth

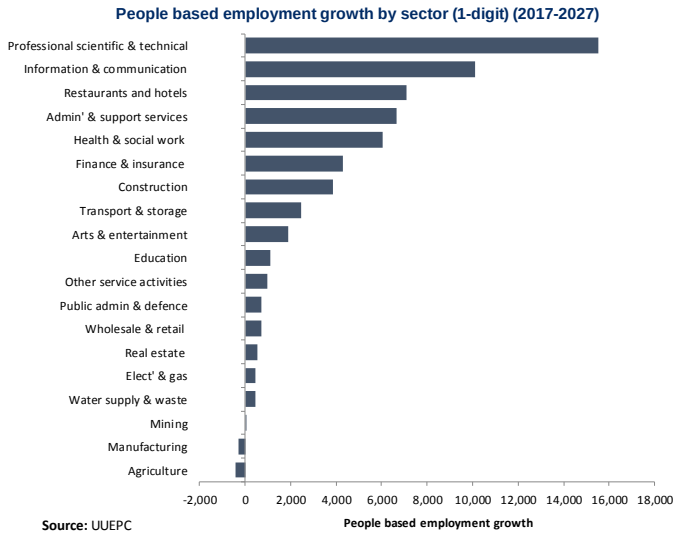
2. When forecasting the demand for skills an important step is to convert workforce jobs into 'people based' terms. This is a required step as workforce jobs can overstate the demand for skills. For example, it is possible for a worker to have more than one job.

3. After converting the high growth scenario into people based terms (using the jobs to people ratio from the 2011 Census) the additional 65,050 jobs over the next decade translates to 62,240 people.

Figure 4.1: People based employment by sector (1-digit), BCR (2017-2027)



Source: UUEPC



Source: UUEPC

Expansion and replacement demand concepts

4. Total labour demand is represented not only by employment growth, but also vacancies created by workers leaving their jobs. The following points below provide key definitions relating to labour demand:

- **Expansion demand** is the additional jobs created due to growth in a sector.
- **Replacement demand** refers to the number of positions which become available as a result of staff leaving employment (typically due to retirement, family reasons, ill health or to move to another sector).
- **Net replacement demand** is the difference between all leavers from employment – to retirement, inactivity, unemployment, other occupations and out migration - and joiners to employment – from unemployment, inactivity (excluding education leavers) and other occupations.

- **Net requirement from education and migration** indicates the number of vacancies that cannot be filled from within the existing labour market and therefore must be met from those leaving education and/or from migration. The average annual net requirement[14] does not include the positions to be filled by labour market participants from other sectors, from unemployment or from economic inactivity.

- **Average annual gross demand** refers to all vacancies to be filled in per annum. It is the total expansion and replacement demand for staff per annum and the jobs that are filled by those currently working in the labour market, those currently out of work and also those from education and migration.

5. The figure of most interest is the net requirement from education and migration (net replacement demand plus expansion demand). This measures the quantum of vacancies for education leavers and migrants. It takes account of 'churn' in the labour market. Skills demand associated with replacement demand is dependent largely on the existing stock and skill needs of current jobs. It can be compared directly to education outputs and the level of migrant inflows and is therefore useful for skills and wider workforce planning.

6. The focus on vacancies for education leavers and migrants should not be interpreted to mean that job opportunities for those out of work are ignored. Rather it is the case that joiners from unemployment and inactivity are already factored into replacement demand assumptions, and will essentially compete with education leavers and migrants for total arising vacancies.

Demand for labour in BCR

7. While the net change in the stock of jobs – technically termed expansion demand - is often more widely understood and 'visible' within the economy as a driver of future demand, it remains the case that, future skills and employability demand will still be significantly determined by net replacement demand.

8. Labour demand is estimated based upon an analysis of labour market flows in the Labour Force Survey (LFS). The table below summarises expansion and replacement demand forecasts for the BCR economy over the 2012-2017 and 2017-27 periods.

Table 4.1: Expansion and replacement demand, BCR (2012-2027)

Demand category	2012-2017 (annual)	2017-2027 (annual)
(A) Gross demand	48,830	51,790
(B) Expansion demand	5,310	5,950
(C) Replacement demand	43,510	45,840
(D) Filled from within the existing labour market	32,450	33,710
(E) Net replacement demand	11,060	12,130
(F) Net requirement from education and migration	**16,370**	**18,080**

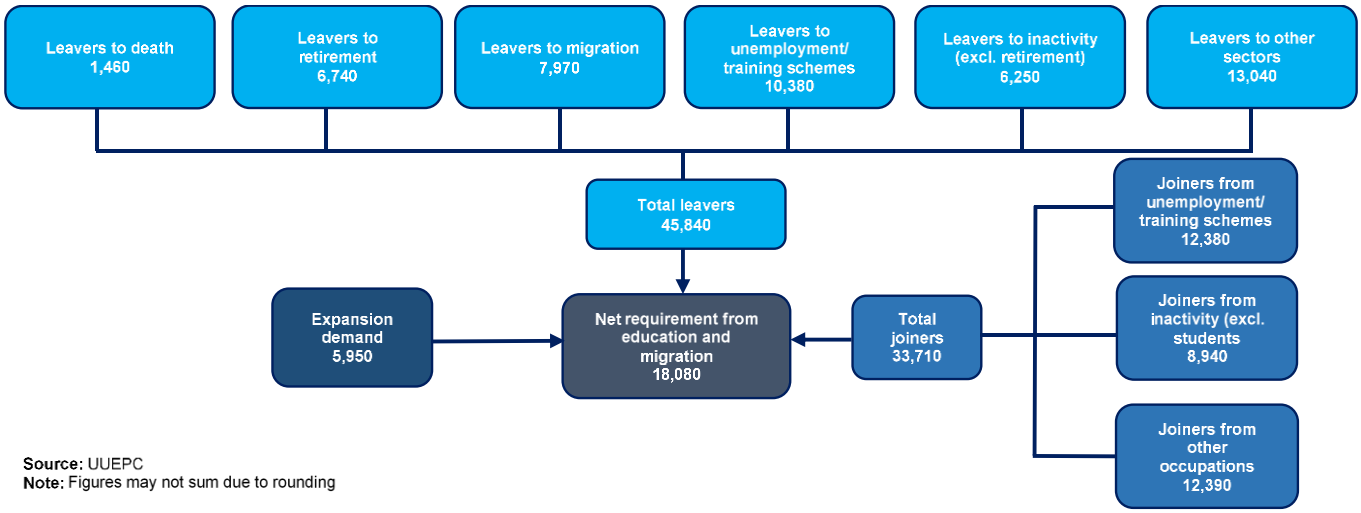
Source: UUEPC

Relationship between rows: A=B+C, E=C-D, F=E+B

[14] From this point onwards "net requirement from education and migration" and "net requirement" are used interchangeably.

9. The figure below highlights the majority of labour demand is generated from the replacement of workers who have left their job (e.g. retirement, sickness, moving to another job etc.). The vacancies available from job leavers are largely filled by individuals already within the labour market (e.g. job movers, people entering employment from unemployment register etc.).

Figure 4.2: Net requirement from education and migration, BCR (2017-2027)



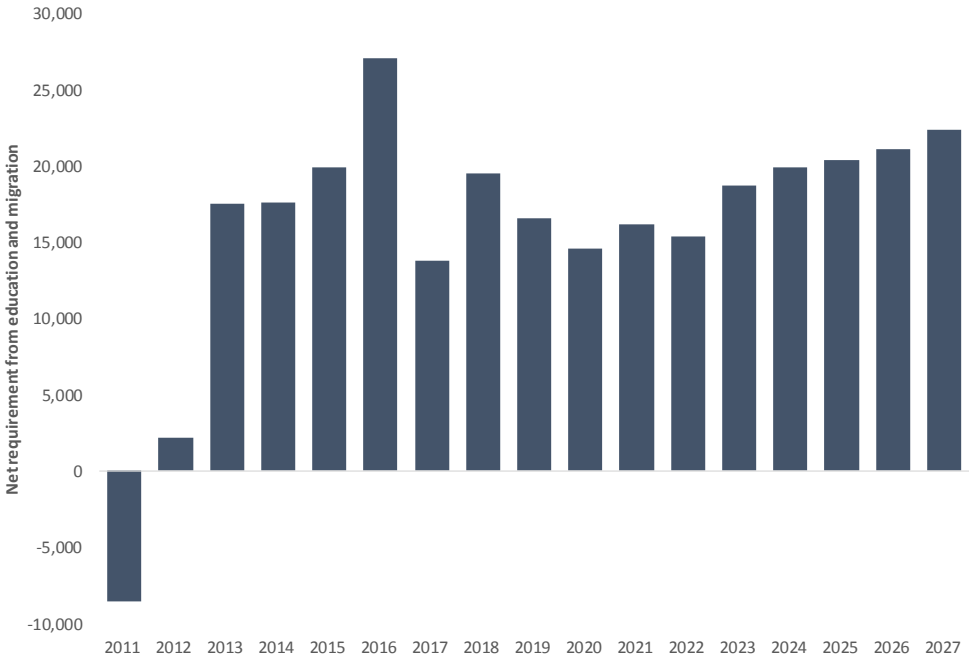
Source: UUEPC
Note: Figures may not sum due to rounding

10. Vacancies that cannot be filled by the current labour market stock must be filled by either leavers from the education system or by migrants. This is referred to as net requirement from education and migration. In BCR net requirement from education and migration is calculated as 18,080 per annum over the period 2017-2027.

11. It is important to note that broadly speaking the majority of net requirement from education and migration comes from the need to replace workers leaving vacancies within the labour market i.e. replacement demand. Despite strong growth forecasts under the high growth scenario, net replacement demand over the next decade (estimated at 12,130 per annum in BCR) is expected to be double the expansion demand (estimated 5,950 per annum in BCR). In other words, **the labour market will continue to create a plentiful supply of job opportunities - even during periods of low growth.**

12. The figure overleaf illustrates net requirement over the period 2012-2027. The net requirement falls in years where job growth is low (or negative) and alternatively increases when job growth is high. However, slow or declining growth does not necessarily translate to a negative net requirement. This is explained by replacement demand accounting for a larger amount than the fall in employment, therefore maintaining a positive net requirement.

Figure 4.3: Net requirement from education and migration, BCR (2011-2027)



Source: UUEPC

In what sectors will labour demand be concentrated?

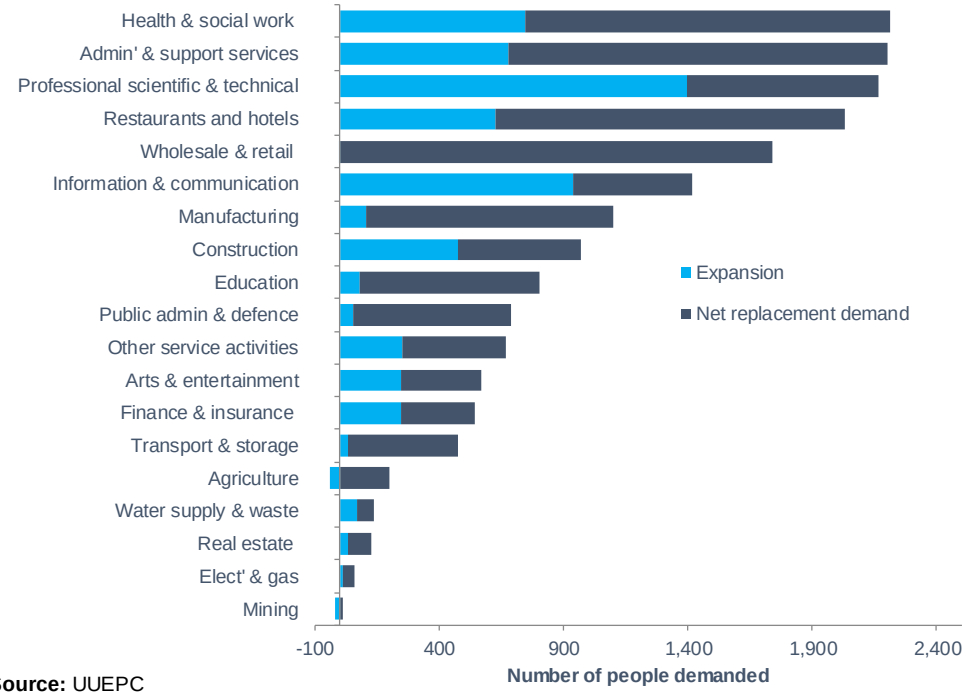
13. It is important to note the context of replacement demand within sectors. For example, although professional services is forecast to have high growth in the coming decade, it represents a small proportion of total jobs. **Therefore the replacement demand associated with this sector will be relatively low - as it is a function of existing jobs.**

14. For those sectors expected to experience high growth the expansion demand component accounts for a more significant proportion of the overall labour demand. For example, information and communication is forecast to experience rapid growth. Therefore, the expansion demand accounts for a larger proportion (66% of the net requirement) of overall labour demand, relative to other sectors.

15. On the other hand, wholesale and retail will generate a relatively large replacement demand as it is one of the largest employment sectors and replacement demand is a function of existing jobs. However, the large replacement demand is also driven by the composition of the sector. Wholesale and retail has high entry and exit rates as many people work in the sector on a short-term basis. The sector often acts as a temporary home for people who have been unable to find employment in their desired occupation, or short-term employment for students.

16. Finally, for sectors where low or declining growth is forecast the expansion demand will account for a much smaller proportion of the overall labour demand composition.

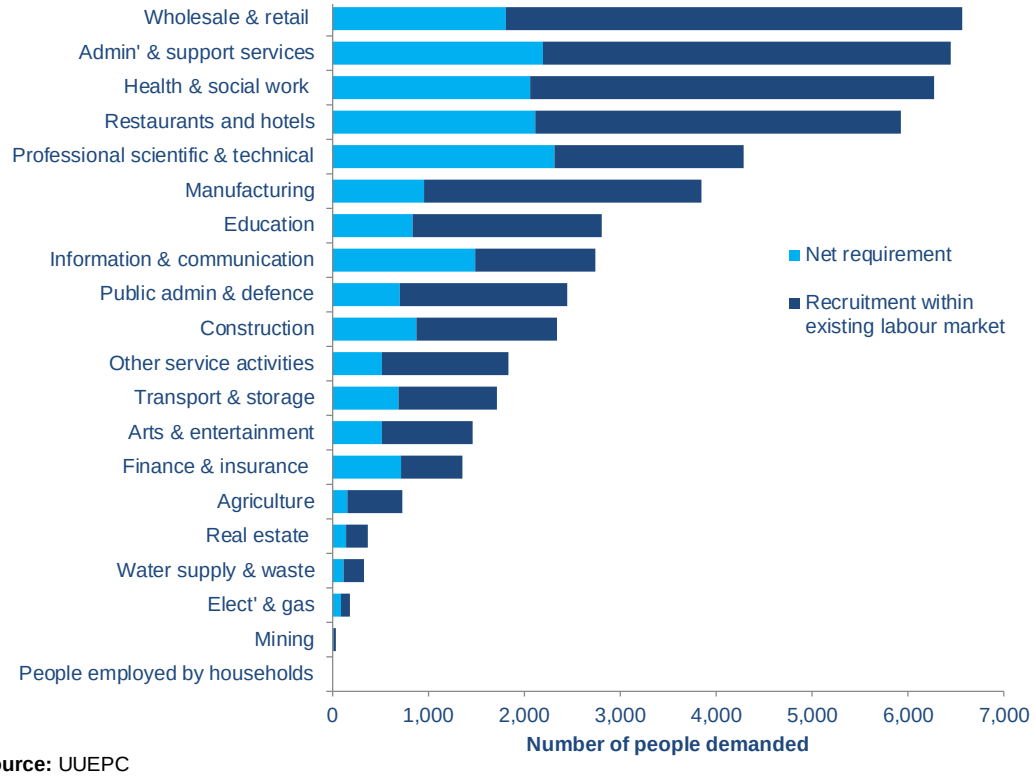
Figure 4.4: Average annual net requirement by sector (1-digit), BCR (2017-2027)



Source: UUEPC

17. Sectors such as wholesale and retail and manufacturing which have traditionally been low skilled with regard to formal qualifications have experienced a visible squeeze in the number of opportunities. This is partly because of slowing labour demand within these sectors as well as advances in labour saving technology.

Figure 4.5: Average annual gross demand by sector (1-digit), BCR (2017-2027)

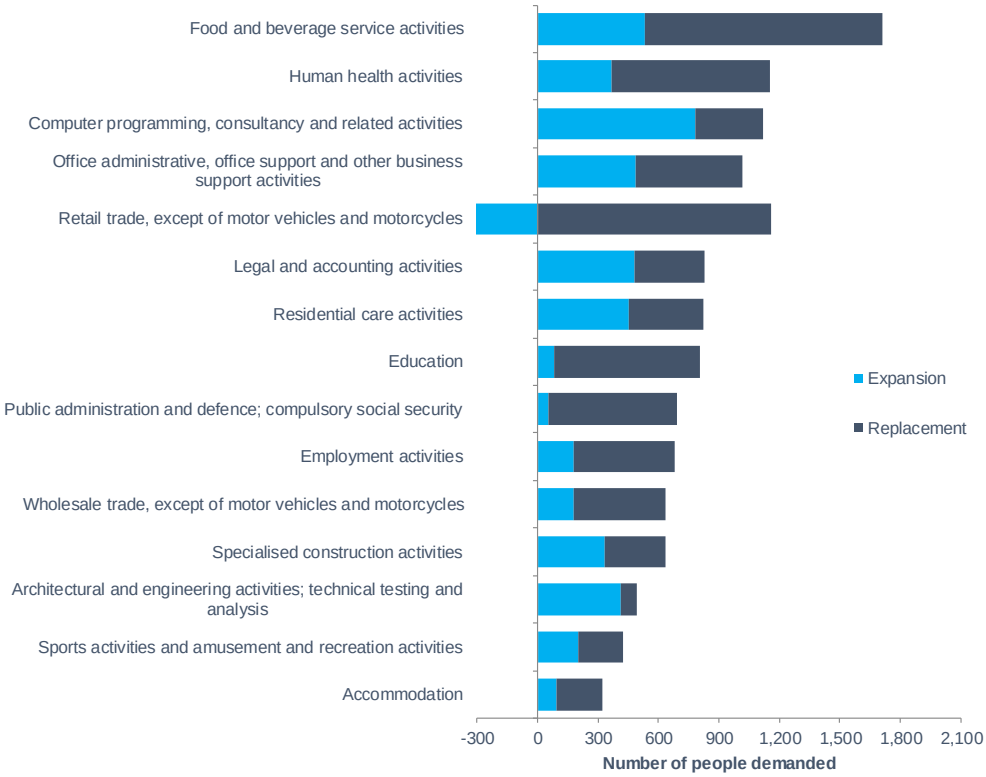


Source: UUEPC

18. Although there is reduced demand for traditionally low skilled sectors from the education system, this is not to say there will not be job opportunities. For example, when measured by gross demand there are a greater number of job opportunities in such sectors but the majority of those opportunities are filled from within the existing labour market. **In other words, although these jobs are associated with low formal qualifications, they are filled by experienced workers moving between jobs or re-joining the labour market after a period of unemployment or inactivity.**

19. The composition of labour demand by sub-sectors (2-digit) is summarised in the figure below. The top 15 sub-sectors are ranked in order of the quantum of people demanded as part of the overall net requirement.

Figure 4.6: Average annual net requirement by sector (top 15 2-digit sectors), BCR (2017-2027)



Source: UUEPC

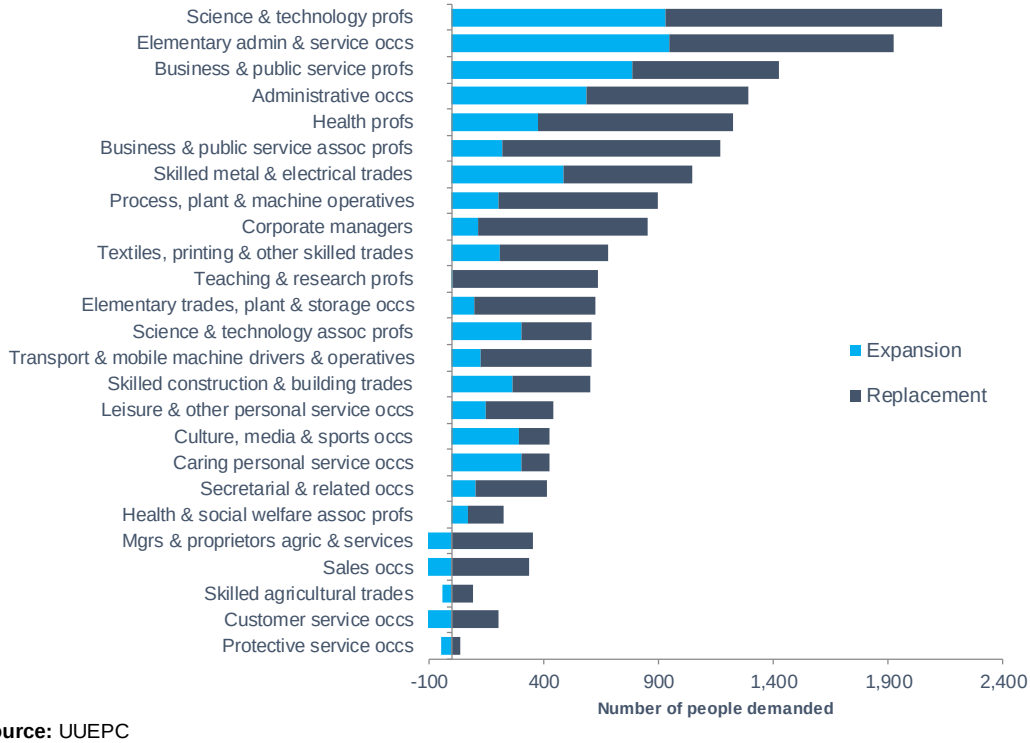
20. The sub-sector with the highest labour demand is food and beverage service activities (9% of total labour demand) followed by human health activities (6% of total labour demand). Overall, the top 15 sub-sectors account for 53% of total net requirement from education and migration.

In what occupations will labour demand be concentrated?

21. In BCR science and technology professionals will provide the most job opportunities over the coming decade requiring 2,140 individuals per annum, driven by both strong expansion demand and large replacement demand.

22. The next largest 'high demand' occupations are: elementary administration and service occupations (1,930); business and public service associate professionals (1,420); administrative occupations (1,290); and health professionals (1,230).

Figure 4.7: Average annual requirement from education and migration by occupation (2-digit) BCR (2017-2027)

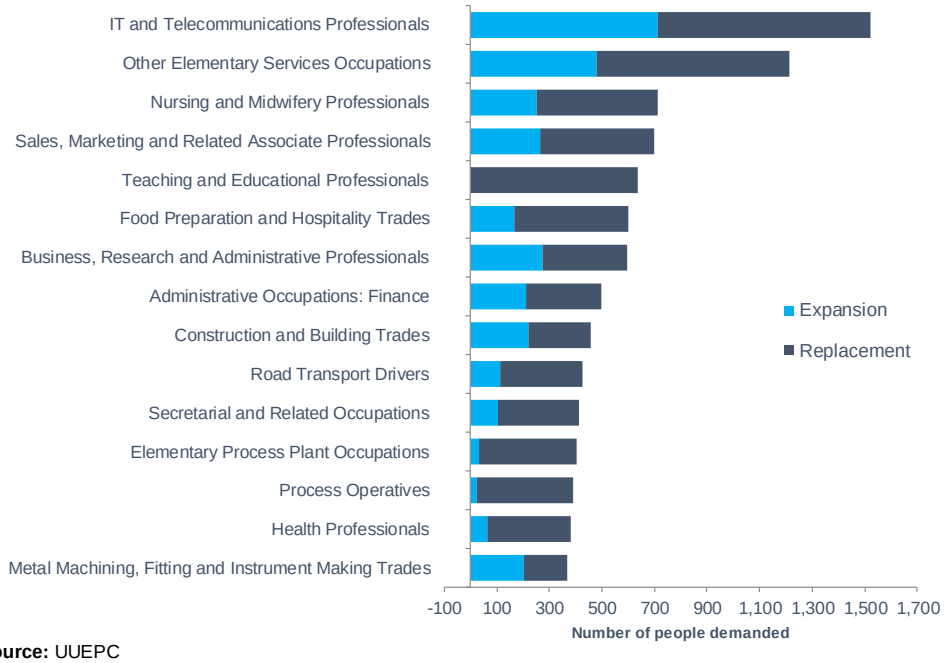


Source: UUEPC

23. At a more granular occupation level (3-digit) IT and telecommunications professionals have the largest net requirement, at 1,520 people per annum. This is the largest occupation measured by net requirement and is directly related to high rates of growth in the IT sector in the high growth scenario.

24. Overall the top 15 detailed occupations account for 41% of the total net requirement. Other top ranking 3-digit occupations include other elementary services occupations (1,110); nursing and midwifery occupations (710); sales marketing and related associate professionals (700); and teaching and educational professionals (640).

Figure 4.8: Average annual net requirement by occupation (top 15 3-digit occupations), BCR (2017-2027)



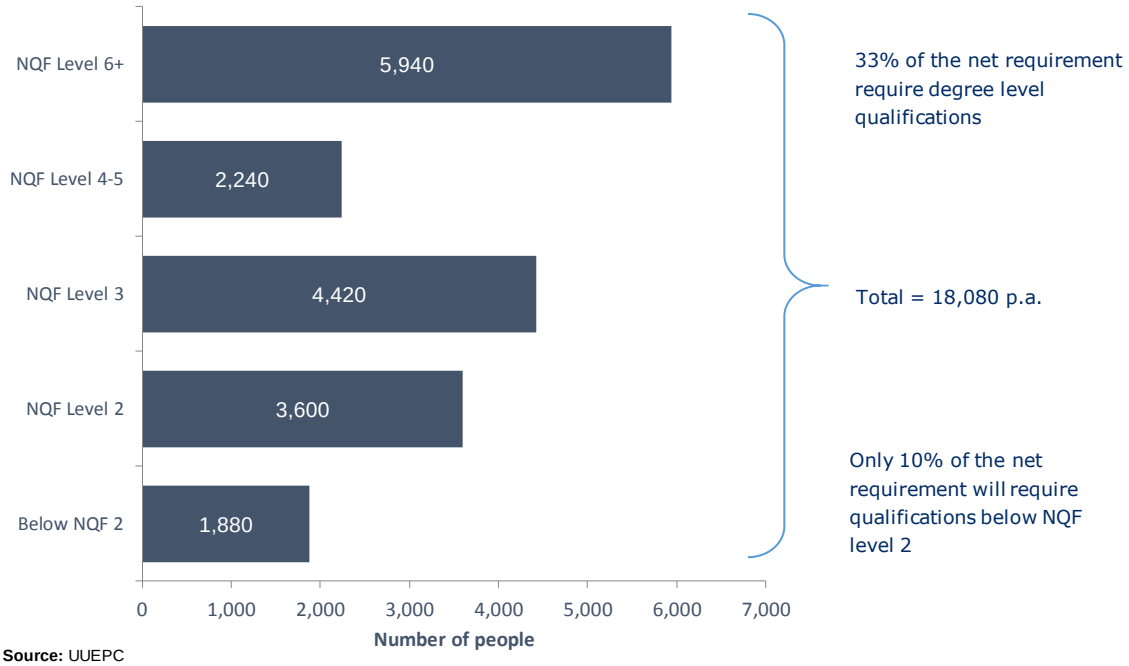
Source: UUEPC

The demand for qualifications

25. Using the UUEPC skills model it is possible to estimate the net requirement by the highest NQF level. However, it is important to acknowledge that skills and qualifications are not the same. **Labour can be high skilled yet have a low level of formal qualification.**

26. The figure below outlines the demand for skills disaggregated by the highest level of formal qualification according to the NQF associated with UUEPC high growth scenario.

Figure 4.9: Average annual net requirement by skill (NQF), BCR (2017-2027)

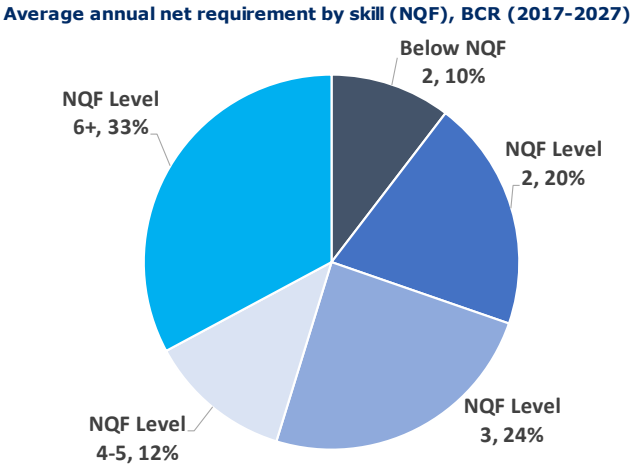


Source: UUEPC

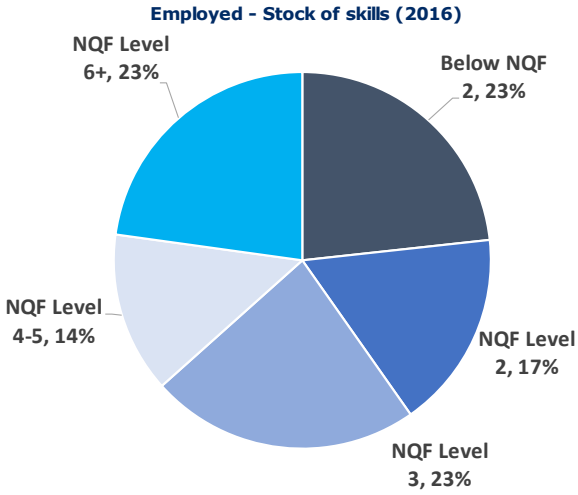
27. At the higher end of the skills spectrum it is forecast that **33% of total demand will require at least a degree level qualification.** At the lower end of the skills spectrum, only 10% of job opportunities will be available to individuals with a qualification level equivalent to NQF level 2 or below. **The higher weighting of opportunities for those with degree level qualifications relative to low or no qualifications highlights the need to address educational underachievement within BCR and wider NI.** The number of school leavers entering the labour market with below the minimum required qualifications for most modern employers should be reduced. The long tail of academic underachievement in NI schools currently produces too many school leavers with low levels of qualifications. This is a misalignment when benchmarked against labour market needs.

28. The higher weighting towards qualifications at the top end of the skills spectrum is influenced by both increasing Higher Education (HE) participation levels and increasingly qualifications hungry employers. **The implication is that the future skill needs of the economy differs with the current stock of skills across the workforce.** Although, the trend is largely that older workers hold less formal qualifications (but not necessarily low skilled) and drag down the qualification profile of the workforce.

Figure 4.10: Average annual net requirement by skill (NQF), BCR (2017-2027)



Source: UUEPC



Source: UUEPC

29. **The average annual net requirement in the middle of the skills spectrum (NQF level 2 and NQF level 3) is the most closely aligned to the current workforce skills profile**, 44% and 40% respectively. This is largely due to the high proportion of jobs within sectors such as wholesale and retail and hospitality which are not typically associated with high qualification requirements. These sectors also tend to be aligned with high entry and exit rates therefore contributing to the forecasted relatively high replacement demand.

Profile of NQF level 6+ skills demand

Industry profile of NQF level 6+ skills demand

30. The number of graduates required from education and migration differs relatively across sectors. For example, just under two thirds (64%) of the net requirement in

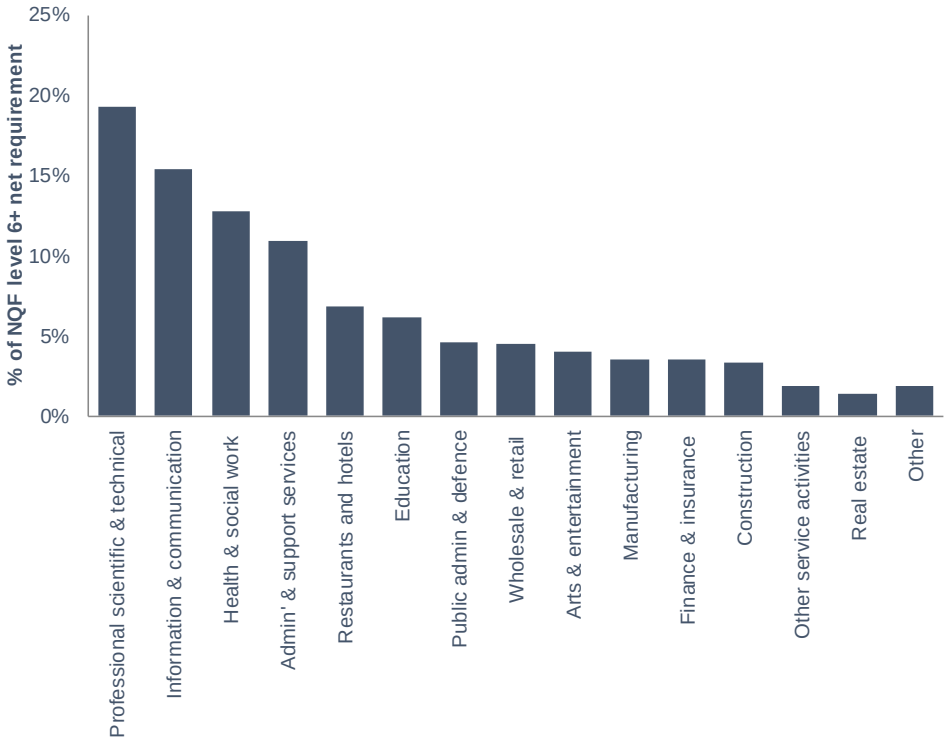
the information and communication sector requires having at least an undergraduate degree level qualification (NQF level 6+). However, 30% of people demanded in administration and support services sector will require with degree level qualifications.

31. It is important to note the scale of the sector alongside the graduate intensity when discussing net requirement. For example, graduate intensity within net requirement in finance and insurance is over double (39%) that of the wholesale and retail sector (16%). However, finance and insurance activities require 210 graduates per annum whereas wholesale and retail require 270 graduates each year. The absolute requirements are very similar despite the 23 percentage point difference in proportion of graduates.

32. The two largest sectors comprising the NQF level 6+ demand in BCR are the professional, scientific and technical (19% of the NQF level 6+ net requirement) and information communication (15% of the NQF level 6+ net requirement) sectors.

33. The sub-sectors of public services (health – 13%; public administration – 5%; and education – 6%) make up almost one quarter (24%) of the NQF level 6+ net requirement in BCR workplace. This is an important point with regard to fiscal challenges and the UK Government's policy of austerity. In other words, **given BCR has a relatively high share of jobs in the public sector, any contraction of public sector employment associated with austerity would have a significant effect**[15]**.**

Figure 4.11: Average annual net requirement for NQF level 6+ skills by sector (1-digit), BCR (2017-2027)



Source: UUEPC

[15] This analysis is based on current UK Government spending plans. However, this can change with a change of government.

34. At more detailed sector level (2-digit) the largest demand for NQF level 6+ skills is in computer programming and related activities (14% of the total NQF level 6+ net requirement). The next largest sectors are: human health and activities sector (9.6% of the total NQF level 6+ net requirement); legal and accounting activities (6.7%); and education (6.4%).

Table 4.2: Average annual net requirement for NQF level 6+ skills by sector (top 15 2-digit sectors), BCR (2017-2027)

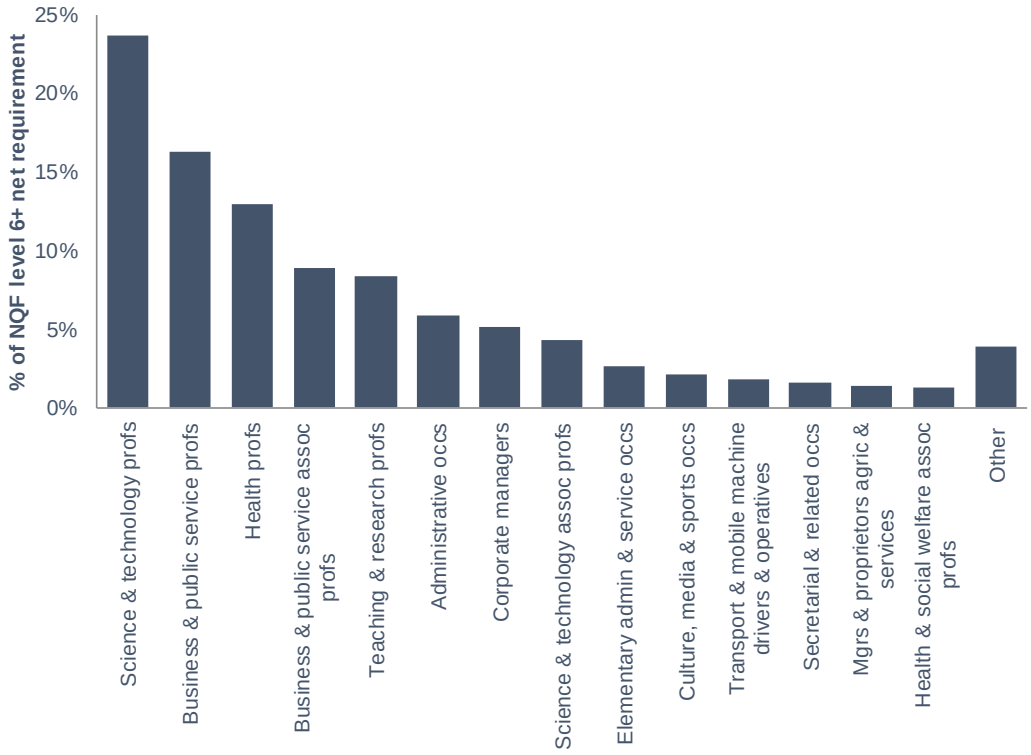
2 digit SIC	% of NQF level 6+ net requirement
Computer programming, consultancy and related activities	14.0%
Human health activities	9.6%
Legal and accounting activities	6.7%
Education	6.4%
Food and beverage service activities	5.9%
Employment activities	5.0%
Public administration and defence; compulsory social security	4.7%
Architectural and engineering activities; technical testing and analysis	4.6%
Office administrative, office support and other business support activities	4.6%
Sports activities and amusement and recreation activities	3.2%
Activities of head offices; management consultancy activities	2.9%
Other professional, scientific and technical activities	2.8%
Residential care activities	2.4%
Retail trade, except of motor vehicles and motorcycles	2.3%
Activities auxiliary to financial services and insurance activities	2.2%

Source: UUEPC

Occupation profile of NQF level 6+ skills demand

35. The industry demand discussed above shapes the occupation demand for graduate skills in BCR workplace. The occupations accounting for the largest proportion of the NQF level 6+ net requirement are: science and technology professionals (24%); business and public services professionals (16%); health professionals (13%); business and public services associate professionals (9%); and teaching and research professionals (8%).

Figure 4.12: Average annual net requirement for NQF level 6+ skills by occupation (2-digit), BCR (2017-2027)



Source: UUEPC

36. Using more detailed occupation categories (3-digit) the most in-demand occupations are: information technology and telecommunications professionals (16.9% of NQF level 6+ net requirement); teaching and educational professionals (8.3%); nursing and midwifery professionals (7.5%); business research and administrative professionals (6.8%); and sales, marketing and related associate professionals (5.3%).

Table 4.3: Average annual net requirement for NQF level 6+ skills by occupation (top 15 3-digit occupations), BCR (2017-2027)

3 digit SOC	% of NQF level 6+ net requirement
Information technology and telecommunications professionals	16.9%
Teaching and educational professionals	8.3%
Nursing and midwifery professionals	7.5%
Business, research and administrative professionals	6.8%
Sales, marketing and related associate professionals	5.3%
Health professionals	4.0%
Architects, town planners and surveyors	3.5%
Engineering professionals	2.8%
Natural and social science professionals	2.5%
Administrative occupations: Finance	2.3%
Legal professionals	2.2%
Information technology technicians	2.2%
Quality and regulatory professionals	1.8%
Business, finance and related associate professionals	1.7%
Other elementary services occupations	1.7%

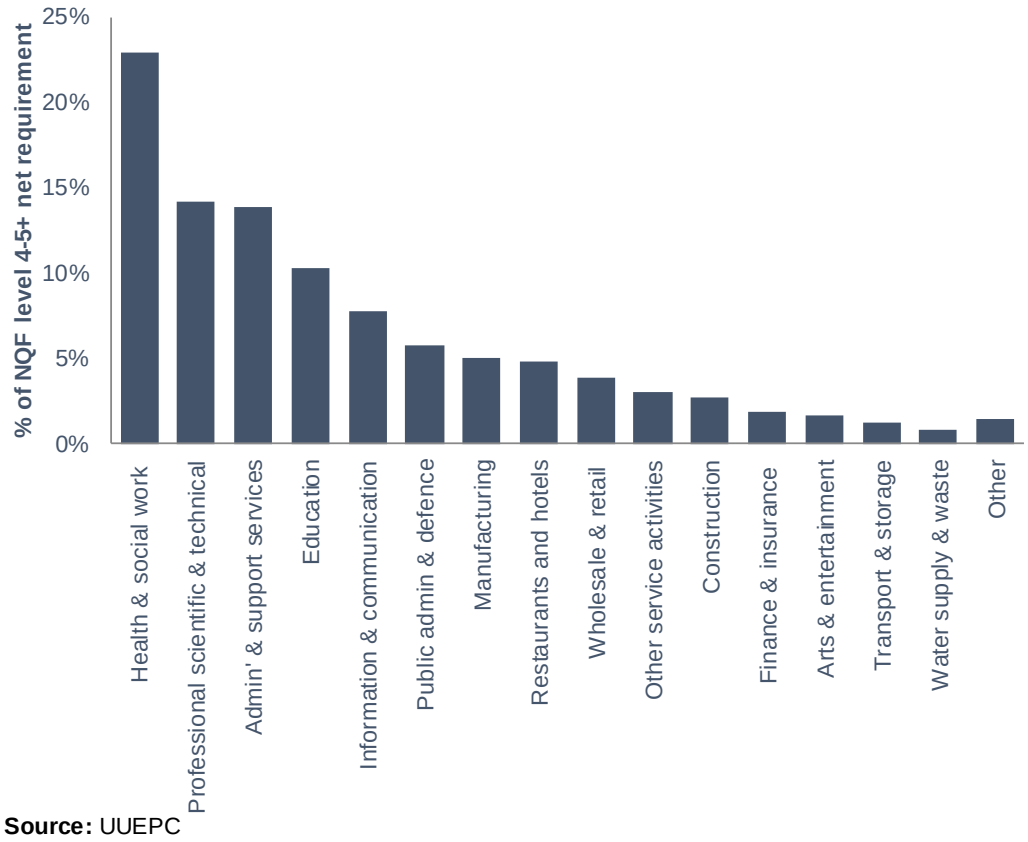
Source: UUEPC

Profile of NQF level 4-5 skills demand

Industry profile of NQF level 4-5 skills demand

37. The sectoral mix for mid-level skills at NQF level 4-5 varies relative to degree level, as discussed above. The sectors accounting for the most NQF level 4-5 demand are: health and social work (23%); professional, scientific and technical (14%); administration and support services (14%); education (10%); and information and communication (8%).

Figure 4.13: Average annual net requirement for NQF level 4-5 skills by sector (1-digit), BCR (2017-2027)



Source: UUEPC

38. Using more detailed industry classifications (2-digit) the largest demand for NQF level 4-5 qualifications comes from human health activities (14%); education (10.8%); legal and accounting activities (9.8%); residential care activities (9.3%); employment activities (7.2%); public administration and defence (6%); and computer programming, consultancy and related activities (5.4%).

Table 4.4: Average annual net requirement for NQF level 4-5 skills by sector (top 15 2-digit occupations), BCR (2017-2027)

2 digit SIC	% of NQF level 4-5 net requirement
Human health activities	14.0%
Education	10.8%
Legal and accounting activities	9.8%
Residential care activities	9.3%
Employment activities	7.2%
Public administration and defence; compulsory social security	6.0%
Computer programming, consultancy and related activities	5.4%
Office administrative, office support and other business support activities	4.9%
Food and beverage service activities	3.5%
Wholesale trade, except of motor vehicles and motorcycles	3.2%
Repair of computers and personal and household goods	2.8%
Architectural and engineering activities; technical testing and analysis	1.7%
Specialised construction activities	1.7%
Accommodation	1.6%
Other professional, scientific and technical activities	1.5%

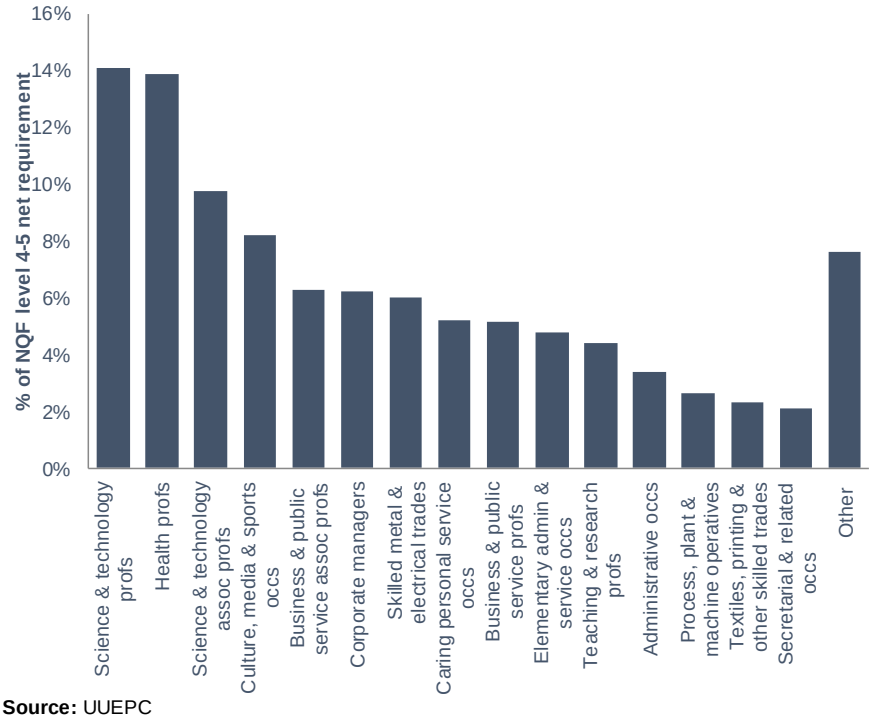
Source: UUEPC

Occupation profile of NQF level 4-5 skills demand

39. The sector demand discussed above shapes the occupation demand for mid-level skills in BCR workplace.

40. The occupations accounting for the largest proportion of the NQF level 4–5 net requirement are science and technology professionals (14%); health professionals (14%); science and technology associate professionals (10%); culture, media and sport occupations (8%); and business & public service associate professionals (6%).

Figure 4.14: Average annual net requirement for NQF level 4-5 by occupation (2-digit), BCR (2017-2027)



Source: UUEPC

41. More detailed occupation categories (3-digit) highlights the most in-demand occupations as: information technology and telecommunications professionals (10.1% of NQF level 4-5 net requirement); nursing and midwifery professionals (8.1%); information technology technicians (4.9%); artistic, literary and media occupations (4.6%); teaching and educational professionals (4.4%); health professionals (4.3%); and science, engineering and production technicians (3.8%).

Table 4.5: Top 15 occupations (SOC, 3-digit) average annual net requirement for NQF Level 4-5 skills, BCR (2017-27)

3 digit SOC	% of NQF level 4-5 net requirement
Information technology and telecommunications professionals	10.1%
Nursing and midwifery professionals	8.1%
Information technology technicians	4.9%
Artistic, literary and media occupations	4.6%
Caring personal services	4.4%
Teaching and educational professionals	4.4%
Health professionals	4.3%
Science, engineering and production technicians	3.8%
Sales, marketing and related associate professionals	3.7%
Other elementary services occupations	3.0%
Business, research and administrative professionals	2.2%
Secretarial and related occupations	2.1%
Metal machining, fitting and instrument making trades	2.1%
Managers and directors in retail and wholesale	2.0%
Food preparation and hospitality trades	2.0%

Source: UUEPC

Profile of skills demand below NQF level 3

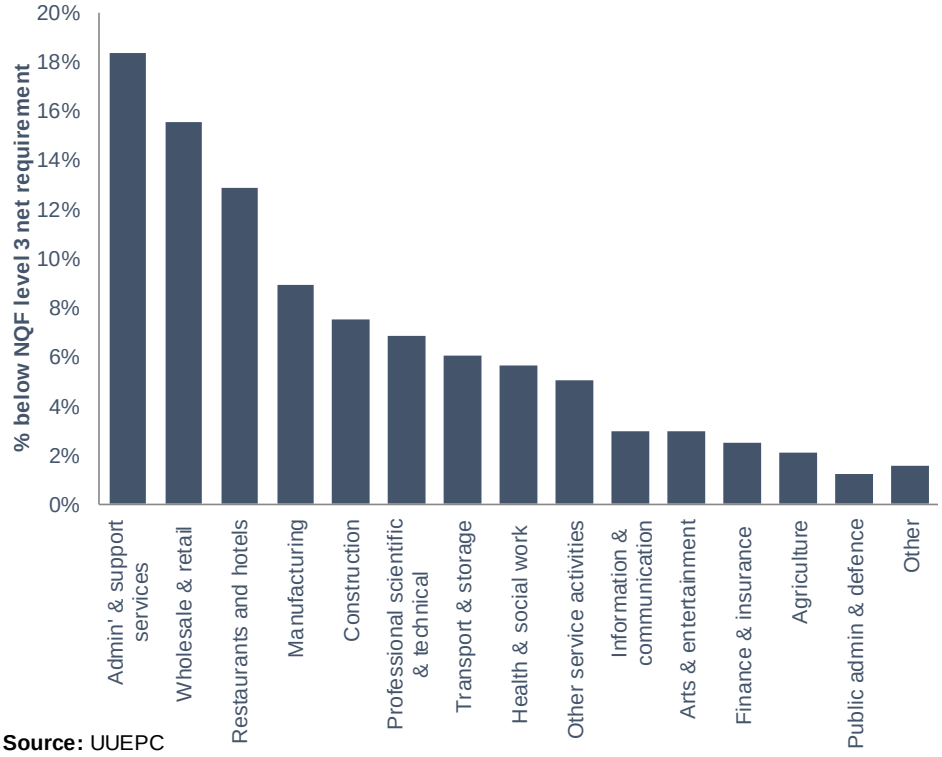
Industry profile of skills demand below NQF level 3

42. At below NQF level 3 the sectoral mix of net requirement from education and migration is significantly different from both the industry mix required at sub-degree and degree level.

43. The sectors accounting for the most NQF below level 3 demand are: administration and support services (18%); wholesale and retail (16%); restaurants and hotels (13%); manufacturing (9%); and construction (8%).

44. These sectors play a vital role in supporting inclusive growth throughout an economy. In other words, **a number of the high growth sectors are graduate intensive and create limited job opportunities for individuals with non-tertiary skills.** Therefore, to ensure inclusive growth it is important that an economy creates jobs throughout a mix of sectors, including those less graduate intensive to support individuals across the entire skills spectrum.

Figure 4.15: Average annual net requirement by sector (1-digit) for below NQF level 3 skills, BCR (2017-2027)



Source: UUEPC

45. At a more granular sector level (2-digit) the sectors accounting for the highest proportion of the below NQF level 3 net requirement are: food and beverage service activities (12.1%); office administration and support (10.7%); retail trade (8.4%); wholesale trade (5.9%); and specialised construction activities (5.2%).

Table 4.6: Average annual net requirement by sector (2-digit) for below NQF level 3 skills, BCR (2017-2027)

2 digit SIC	% below NQF level 3 net requirement
Food and beverage service activities	12.1%
Office administrative, office support and other business support activities	10.7%
Retail trade, except of motor vehicles and motorcycles	8.4%
Wholesale trade, except of motor vehicles and motorcycles	5.9%
Specialised construction activities	5.2%
Residential care activities	4.2%
Employment activities	3.6%
Warehousing and support activities for transportation	3.5%
Land transport and transport via pipelines	3.4%
Other personal service activities	3.0%
Services to buildings and landscape activities	2.8%
Wholesale and retail trade and repair of motor vehicles and motorcycles	2.7%
Legal and accounting activities	2.7%
Security and investigation activities	2.4%
Architectural and engineering activities; technical testing and analysis	2.3%

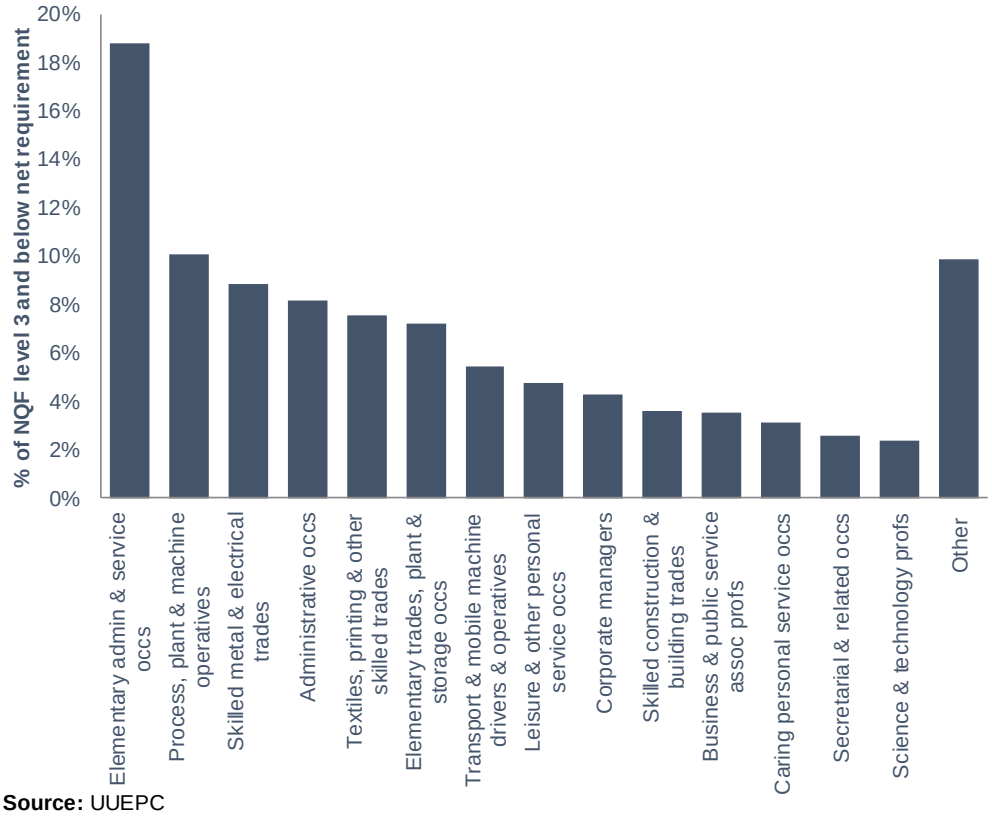
Source: UUEPC

Occupation profile of NQF level 3 and below skills demand

46. The occupations demanding skills at below NQF level 3 are those which are most prevalent within the high demand sectors for low level qualifications.

47. The occupations accounting for the most below NQF level 3 demand are: elementary administration and services (19%); process, plant and machine operatives (10%); skilled metal and electrical trades (9%) administration (8%); and textiles, printing and other skilled trades (8%).

Figure 4.16: Average annual net requirement by occupation (2-digit) below NQF level 3 skills, BCR (2017-2027)



Source: UUEPC

48. At a more detailed occupation level (3-digit) the occupation categories accounting for the largest below NQF level 3 demand are: other elementary occupations (11.9%); food preparation and hospitality trades (6.7%); elementary process and plant occupations (4.6%); process operatives (4.4%); and road transport drivers (3.8%).

Table 4.7: Average annual net requirement for below NQF level 3 skills by occupation (top 15 3-digit occupations), BCR (2017-2027)

3 digit SOC	% of below NQF level 3 net requirement
Other elementary services occupations	11.9%
Food preparation and hospitality trades	6.7%
Elementary process plant occupations	4.6%
Process operatives	4.4%
Road transport drivers	3.8%
Administrative occupations: Finance	3.1%
Metal machining, fitting and instrument making trades	3.1%
Elementary storage occupations	2.7%
Construction and building trades	2.7%
Caring personal services	2.6%
Secretarial and related occupations	2.6%
Elementary cleaning occupations	2.5%
Assemblers and routine operatives	2.4%
Elementary construction occupations	2.1%
Sales, marketing and related associate professionals	2.1%

Source: UUEPC

Subjects in demand

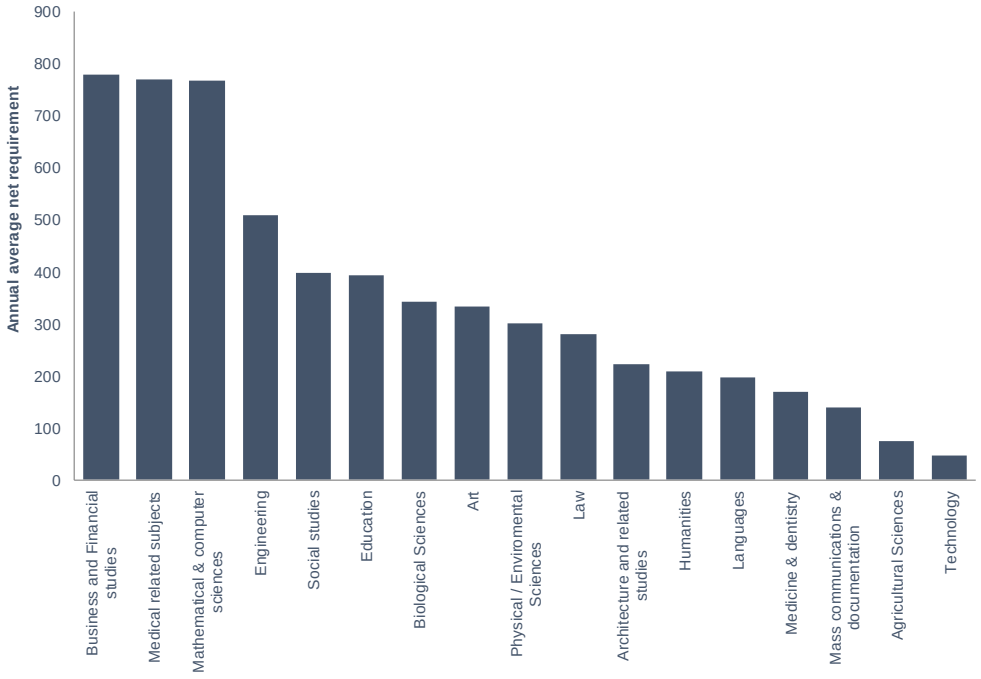
49. Using UUEPC's skills forecasting model it is possible to provide an indication of the subjects demanded in high skill occupations. These results should be interpreted as a rough proxy, as at a sub-regional level the demand for skills can be altered by a new large employer (e.g. a new FDI firm) or a large employer closing down or moving to another area. Estimates of future sector skills demand are based on historic patterns. It is possible that demand in some sectors may evolve over time to change the subject mix within sectors (e.g. growth of cyber-security etc.).

NQF level 6+ (undergraduate and above)

50. On average over the next decade the largest subject in-demand for undergraduate degree programmes and above is business and financial studies at 780 persons per annum, (13% of the NQF level 6+ demand).

51. The remaining structure of the demand for NQF level 6+ subjects is: medical related subjects (13%); mathematical and computer related subjects (13%); engineering (9%); social studies (7%); education (7%); and others (39%).

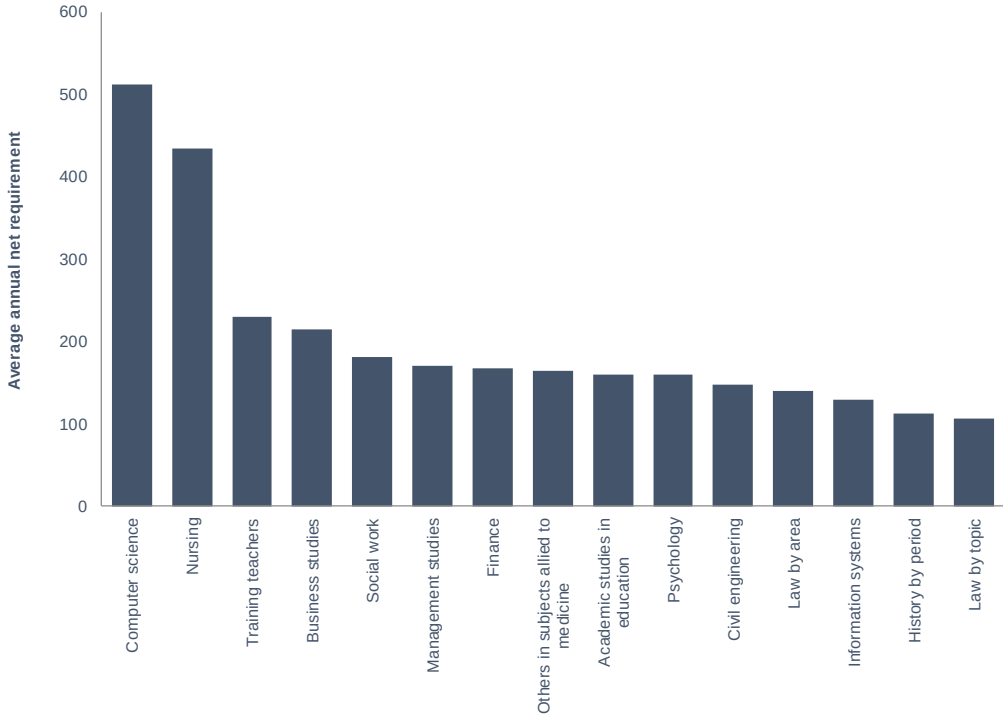
Figure 4.17: Average annual net requirement for NQF level 6+ skills by subject (JACS, 1-digit), BCR (2017-2027)



Source: UUEPC

52. It is important to note the broad groupings of subjects within Joint Academic Coding System (JACS) 1-digit. For example, annual demand for maths and computing subjects is forecast to be 770 per annum over 2017-2027. However, 66% of that demand is for computer scientists and 34% for mathematicians.

Figure 4.18: Average annual net requirement for NQF level 6+ skills by subject (JACS, 2-digit), BCR (2017-2027)



Source: UUEPC

53. At a more detailed level the top three subjects in-demand are computer science (9% of the graduate net requirement); nursing (7%); and training teachers (4%). Together these three subjects account for one fifth (20%) of graduate demand in BCR.

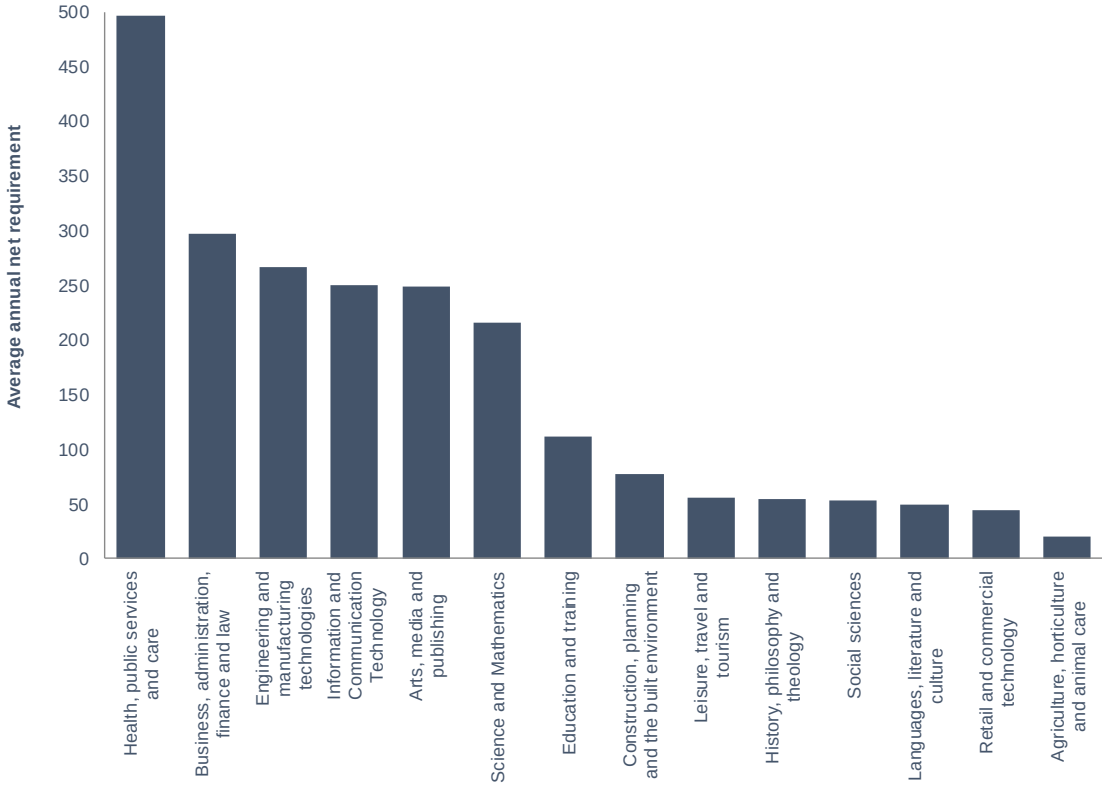
NQF level 4-5 (Sub-degree level)

54. NQF level 4-5 qualifications are sub-degree tertiary level qualifications. Examples of NQF 4-5 qualifications include Higher National Diplomas (HND's) and foundation degrees.

55. The figure below summarises the subject profile of demand for NQF level 4-5 qualifications in BCR.

56. On average over the next decade the largest subject in-demand for sub-degree programmes at NQF level 4-5 is health, public services and care at 500 persons per annum, representing over one fifth (22%) of the NQF level 4-5 demand. This is reflective of growth in health in the high growth scenario, alongside significant replacement demand driven by health's high share of total employment in BCR.

Figure 4.19: Average annual net requirement for NQF level 4-5 skills by subject (SSA, 1-digit), BCR (2017-2027)



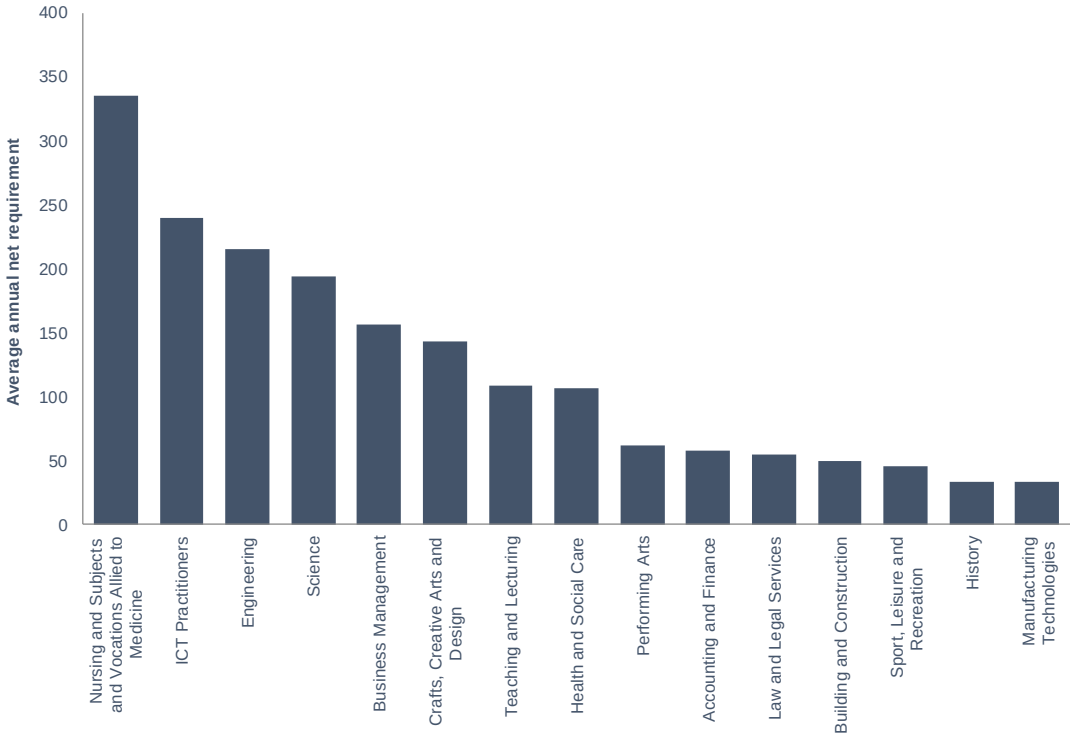
Source: UUEPC

57. The remaining structure of the demand for NQF level 4-5 subjects is: business, administration, finance and law (13%); engineering and manufacturing technologies (12%); information and communication technology (11%); art, media and publishing (11%); and others (30%).

58. At NQF level 4-5 the most in-demand Sector Subject Areas (SSA) using more detailed 3 digit classifications is nursing subjects and vocations allied to medicine. This accounts for 15% of overall subject demand at NQF level-4-5.

59. The next largest demand for NQF level 4-5 subjects on an SSA basis is: ICT practitioners (11%); engineering (10%); science (9%); and business management (7%).

Figure 4.20: Average annual net requirement for NQF level 4-5 skills by subject (JACS, 2-digit), BCR (2017-2027)



Source: UUEPC

60. The most in-demand subjects are driven by a combination of expansion and replacement demand. High expansion demand in growth sectors such as ICT advanced manufacturing and creative industries has created demand for subjects such as computing, engineering and design. However, staple employers in BCR have also created subject demand via replacement demand (e.g. in subjects related to the health and education sectors).

Key points and policy remarks

Key points

61. There are a number of key points which have been highlighted in this chapter:

- Future skills demand will be significantly driven by replacement demand, which is projected to be 2.0 times the size of expansion demand.
- Replacement demand is a function of existing jobs. Therefore, it will be largest in sectors that are already large in scale (e.g. administration and support services, public services, wholesale and retail and hospitality).

- The profile of future skills demand is weighted towards degree level qualifications, with 33% of the net requirement being associated with at least an NQF level 6+ qualification.
- Professional services, information and communication and their associated occupations account for a high proportion of graduate demand (NQF level 6+).
- The most in-demand subjects are: business and financial studies; medical related subjects; mathematical and computer science and engineering.
- Only 10% of the net requirement over the next decade is associated with qualifications below NQF level 2.
- The sectors which account for the highest proportion of skills demand below NQF level 3 are: administration and support services; wholesale and retail; and hospitality.

Policy remarks

62. The trends discussed in this chapter have a number of implications for policy:

- The role of replacement demand is an important point to emphasise with regard to careers advice. The labour market will create a plentiful supply of job opportunities even during periods of low growth. For example, sectors which have a sufficient mass but are associated with low expansion demand will continue to create opportunities via replacement demand.
- With relatively a small number of opportunities for young people with low levels of qualifications, it emphasises the importance of minimising the number of people leaving the education system with qualifications below NQF level 2.
- The demand for skills can have implications on NI's inclusive growth agenda. To ensure that all BCR residents can benefit from growth residents either need to participate in an upskilling process, or the economy will need to generate a mix of opportunities available across the skills spectrum.

5. Supply side

Introduction

1. This chapter provides an overview of all supply side information which has been collected. This will include trends in early year participation, school performance, Further Education (FE) participation, training participation and HE participation.

2. **All data presented in this chapter relates to the skills profile of BCR residents** (i.e. not workplace based and not based on the location of education institutions).

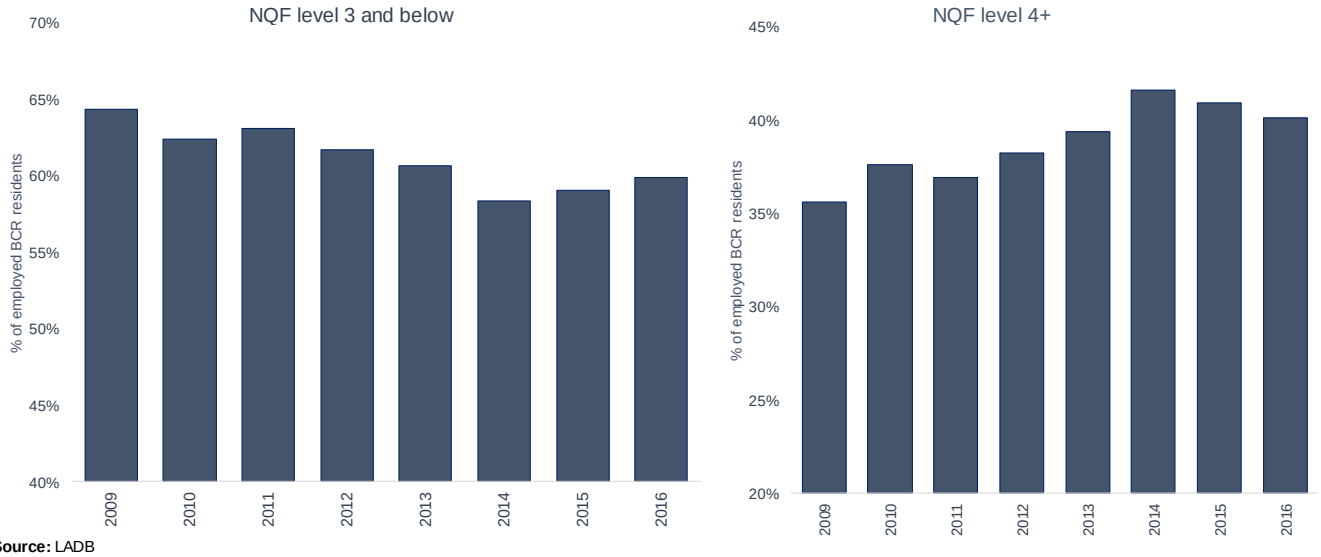
Trends in BCR's skills profile

Employed residents

3. The skills profile of BCR residents relating to sub-degree, degree and postgraduate qualifications (NQF level 4+) has improved by 4 percentage points over the seven year period from 2009-2016 (36% in 2009 to 40% in 2016).

4. At the other end of the skills spectrum there has been a fall in the proportion of low skilled workers (highest qualification NQF level 3 or below) of 4 percentage points over the period 2009-2016. This has fallen from 64% in 2009 to 60% in 2016. A description of each qualification level according to the NQF is provided in the Acronyms section at the beginning of this report.

Figure 5.1: Employed residents by skill (NQF), BCR (2009-2016)



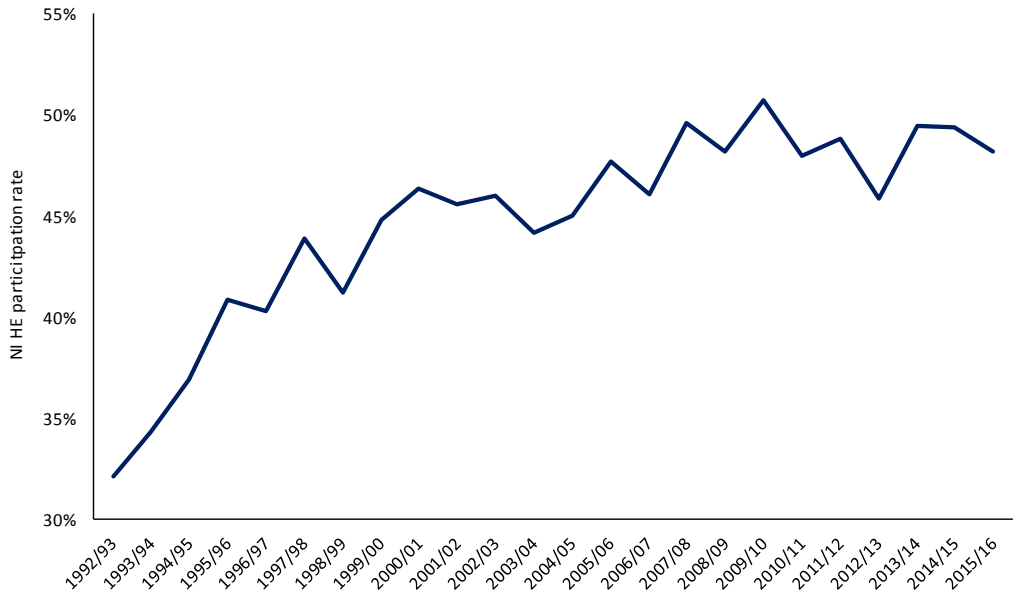
Source: LADB

5. Trends towards a higher skilled workforce can be partly attributed to a sectoral shift in the economy. As a whole, NI is moving away from traditional low skilled activities and towards higher skill intensity, particularly within the service sector and advanced manufacturing.

6. Generational differences in the skill profile of workers can also help explain trends towards a higher skilled workforce. That is, **older workers with less formal qualifications are leaving the labour force and moving into retirement**. **At the**

same time, widening access to HE has led to an inflow of more highly qualified young people to the labour market. To put this in context, NI's HE participation index has increased from 32% to 48% between 1992/1993 and 2015/2016.

Figure 5.2: HE participation (%), NI (1992/1993-2015/2016)



Source: DfE (Higher Education Statistics Agency (HESA), Further Education Statistical Record (FESR), Consolidated Data Return (CDR), Higher Education Authority - Republic of Ireland (HEA), Department for Education, Welsh Government (WG), Scottish Government (SG))

Note: Defined as the number of NI domiciled young entrants (aged under 21) to full-time undergraduate Higher Education (in the UK or Republic of Ireland) as a percentage of the 18 year-old population of Northern Ireland.

7. It is not possible to derive a skills structure by age using the Local Area Database (LADB) due to small sample sizes. However, data from the 2011 Census provides some insight into the differences in qualifications across age bands. The widening access of HE has led to a diversified skill structure between age groups. For example, 36% of BCR employed residents aged under 35 have achieved a qualification greater than or equal to NQF level 4+, compared to 30% of residents over 50.

Table 5.1: Skill structure (NQF) by age of employed residents, BCR (2011)[16]

	Aged 16 to 34		Aged 35 to 49		Aged 50 and over	
	% of Age Group	P.Point difference with NI	% of Age Group	P.Point difference with NI	% of Age Group	P.Point difference with NI
No qualifications	5%	-1%	11%	-2%	25%	-3%
Level 1 qualifications	11%	0%	15%	0%	10%	0%
Level 2 qualifications	18%	0%	16%	0%	13%	0%
Level 3 qualifications	23%	0%	13%	0%	10%	1%
Level 4 qualifications and above	36%	1%	37%	2%	30%	2%
Other qualifications	7%	-1%	8%	-1%	12%	0%

Source: Census 2011

Note: BCR minus NI

8. The skill structure of age bands varies across the LGDs which comprise BCR. For example in BCC 39% of employed residents aged under 35 have at least an NQF level 4, whereas the same figure for Mid and East Antrim is 30%.

[16] A full breakdown of the employed skills profile by age in each LGD within BCR is provided in Annex F1.

9. The trend of outflowing less qualified older workers against an inflow of higher qualified younger workers derives a net effect which drives up the stock of higher skills in BCR labour market.

Table 5.2: Skill structure (NQF) of employed residents, BCR (2009 versus 2016)

NQF Level	2009	2016	Percentage point change
No qualifications	12%	10%	-2%
NQF level 1-2	29%	26%	-2%
NQF level 3	23%	23%	0%
NQF level 4+	36%	40%	4%

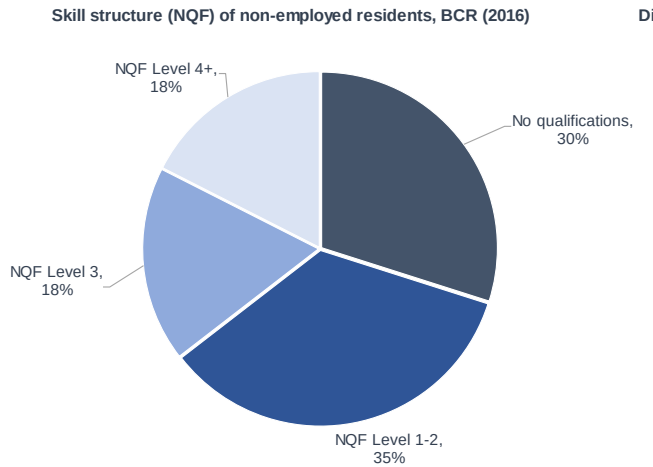
Source: LADB

10. The rate of employed residents with no formal qualifications and NQF level 1-2 have both fallen by 2 percentage points over the 7 year period from 2009-2016 whilst NQF level 3 has remained unchanged over the period.

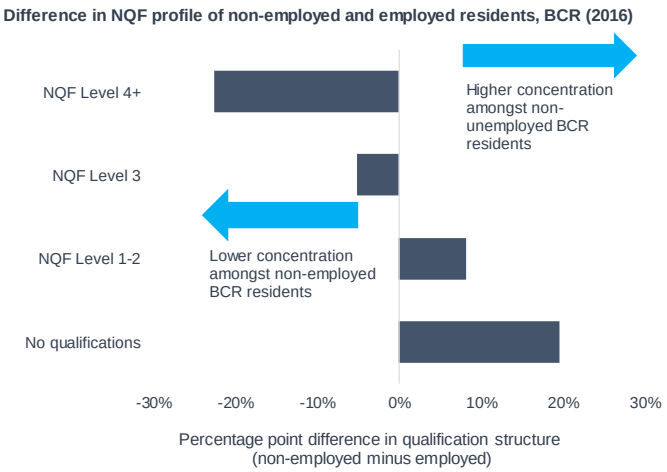
Non-employed residents (16-64 population)

11. **There are significant differences between the skill profile of working age employed and non-employed** (refers to economically inactive plus unemployed residents) within BCR labour market. Amongst those of working age who are out of work 18% have achieved at least NQF level 4. This compares to 40% of employed residents in BCR.

Figure 5.3: Skill structure (NQF) of employed and non-employed residents, BCR (2016)



Source: LADB
Note: Non-employed refers to the total of employed plus economically inactive individuals



Source: LADB
Note: Non-employed refers to the total of employed plus economically inactive individuals

12. In contrast, 30% of non-employed BCR residents have no formal qualifications, compared to only 10% of employed BCR residents. Grouping together the qualifiers below NQF level 3[17] identifies almost two thirds (65%) of BCR out of work residents

[17] In the LADB NQF levels 1 and 2 are grouped together due to small sample sizes.

have achieved below NQF level 3. Whereas, the same figure for employed persons is 37% - a 28 percentage point difference.

13. The differing skill profile of employed and non-employed residents highlights the increasing importance of skills and employability. Therefore, policy ambitions to reduce the number of economically inactive through reintegration to the labour market should consider the need for upskilling. A similar approach applies to policy aims which seek to move individuals off the unemployed register and into the workplace.

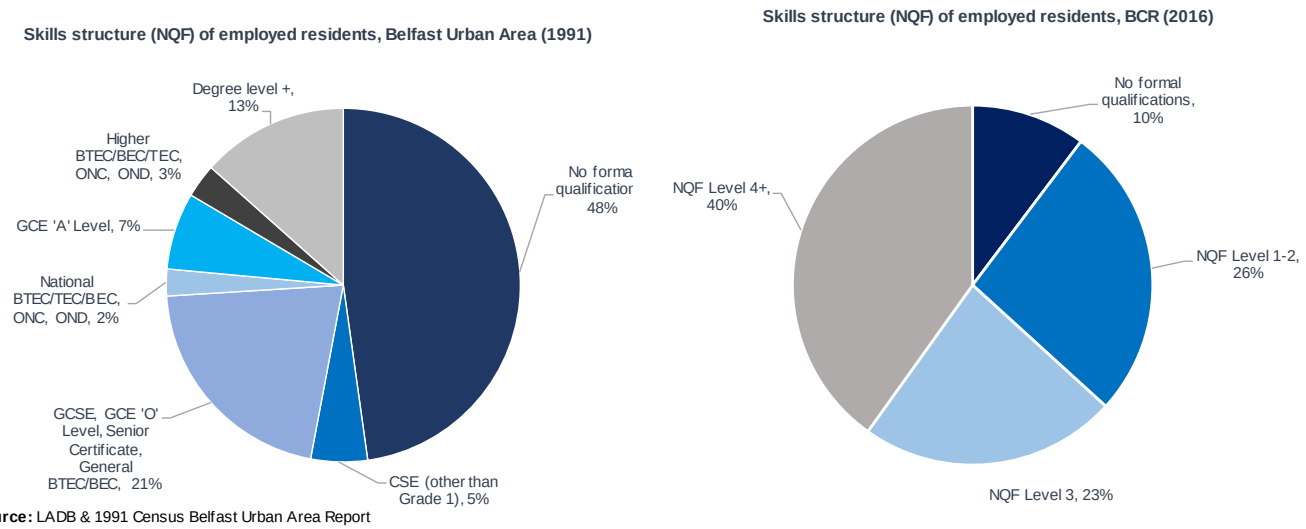
Longer-term trends in BCR skills

14. The LADB is not available pre-2009. Therefore Census data is used to provide an illustrative picture of how the skill profile of BCR has changed over the longer term.

15. **The skill profile of BCR residents has shifted significantly over a generation.** Although the 1991 Census figures are not directly comparable with the LADB 2016 figures, some broad trends can be identified. For example, almost half (48%) of Belfast Urban Area employed residents in 1991 had no formal qualifications. This compares with just one in ten (10%) employed residents in 2016 within BCR.

16. Conversely, a substantial increase in the proportion of individuals obtaining tertiary level qualifications from 1991 to 2016 can be observed. This can be partly explained through recent widening participation of HE.

Figure 5.4: Skill structure of employed residents, BCR (2016) versus Belfast Urban Area (1991)



Source: LADB & 1991 Census Belfast Urban Area Report

Notes: Figures are not directly comparable due to different categorisation of qualifications between 1991 & 2016. In 1991 figures refer to 'Belfast Urban Area' which includes Belfast District Council (all wards), Lisburn District Council (selected wards), Newtownabbey District Council (selected wards), Carrickfergus District Council (selected wards) and North Down District Council (selected wards)

Children and early years

Importance of the early years

17. **The importance of early childhood education and care has received increased recognition and policy attention over the past decade.** This has been driven by a growing evidence base which demonstrates the positive impact of quality early experiences to children's cognitive, social and emotional development.

18. Empirical research has also demonstrated more long-term links between intervention in the early years' and academic performance at post-primary level and beyond. This is particularly true when considering the differences between children from different socioeconomic backgrounds. For example, data from the Millennium Cohort Study (MCS) highlighted cognitive gaps between disadvantaged and better off children as early as three years old and gaps in vocabulary at aged five[18].

The home learning environment

19. There is evidence from neurology and child health that early intervention can be highly effective because the brain is more malleable at earlier ages, meaning that it can be influenced to a greater extent. A child's brain doubles in size in the first year and, by age three, it has reached around 80% of its adult volume[19].

20. Children from poor families can be up to a year behind their more advantaged peers educationally, even by the age of three[20]. Research has found that children from disadvantaged backgrounds may hear up to 30 million fewer words than children from higher socioeconomic status households by the age of three. The majority of words used by three year old children have been derived from their parents vocabularies. Therefore, children from disadvantaged backgrounds are at a greater risk of developing poor vocabulary and speech[21,22,23].

21. **The implication is that families can arguably have a greater impact on children's development than the school system and that this influence contributes to gaps between children before they start school**[24]. This has long been recognised by the research community, if not the policy world.

22. There are a number of features within the home learning environment which are important in determining the cognitive and non-cognitive skills of a child:

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[18] Cassen, R., McNally, S.,& Vignoles (2015) Making a difference in education: What the evidence says.

[19] Rakic, P (2006) No more cortical neurons for you, *Science 313 (5789).*

[20] Feinstein, L. (2003) Inequality in the early years cognitive development in British Children in the 1970 cohort, *Economia.*

[21] Hart, B., and Risley, T. R. (1995), Meaningful differences in the everyday experience of young American children. Baltimore, P.H. Brookes.

[22] Jencks, C., and M. Phillips (1998), The black-white test score gap. Washington, D.C., Brookings Institution Press.

[23] Hart, B. and Risley, T.R. (2003), "The Early Catastrophe: The 30 Million Word Gap by Age 3", American Educator.

[24] Haveman, R. and Wolfe, B. (1995) The Determinants of Children's Attainments: Findings and Review of Methods. *Journal of Economic Literature*, 33, 1829-1878.

- **Income:** Families with greater economic resources can potentially buy nutritionally superior food, live in well heated houses, purchase more educational toys and books, buy better quality childcare, provide access to private tuition and schooling.

- **Level of education of parents:** Higher educated parents provide more stimulation to their children. They talk and read with their children more often. Longitudinal research undertaken in the US, UK, Australia and Canada estimates that parents with higher levels of educational attainment are 20-25% more likely to read to their children everyday than those with low levels of education attainment[25]. This contributes to children with more highly educated parents having more advanced cognitive skills and a wider vocabulary at an earlier age[26,27]. Parental education levels seem to play a stronger role compared to their incomes. This is because parents' levels of education are more directly linked to their ability to create quality home learning environments[28].

- **Household employment status:** A study analysing the effect of parental employment in England found parental worklessness was negatively associated with the educational attainment of primary school children (age 7) and those at the end of secondary education (GCSE point scores at Key Stage 4)[29]. In particular repeated worklessness was a significant risk factor associated with poorer academic attainment among children.

- **Poverty:** The MCS highlighted that 65% of children who experienced poverty persistently had a vocabulary level below the NI average at age five, compared to 38% of children who never experienced poverty. Poorer children who did well in their vocabulary test at age three (scoring in the top 40%) were almost twice as likely to fall out of the top 40% by age five than their better off peers (58% compared to 30%). Only one in four (25%) children from the most disadvantaged backgrounds who scored in the bottom 40% at aged three had escaped the bottom three at aged 5. This compares to 61% of initially low achieving children from the least disadvantaged backgrounds. In the early years the poorest children are likely to regress, while the most advantaged children progress[30].

- **Household structure:** Providing sufficient home learning environments in the modern family structure is particularly challenging. There is a large body of research which highlights lower cognitive ability in young children in lone parent households compared to households where both parents live together[31]. Over the past few decades in most advanced countries there has been an increase in the

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[25] Bradbury, B., et al (2015) Too many children left behind: The US achievement gap in comparative perspective. Russell Sage Foundation.

[26] Desforges C., with Abouchaar, A., (2003). The Impact of Parental Involvement, Parental Support and Family Education on Pupil Achievement and Adjustment: A Literature Review. DfES Research Report 433, 2003

[27] Clegg, J. and Ginsborg, J. (2006) *Language and Social Disadvantage*, Chicester: Wiley.

[28] Davis-Kean, P.E. (2005) The influence of parent education and family income child achievement. The indirect role of parental expectations and the home environment. Journal of Family Psychology, Vol 19/2, June 2005.

[29] Schoon I, Barnes M, Parsons S, Brown V, Ross A, Vignoles A. Intergenerational transmission of worklessness: Evidence from the Millennium Cohort and the Longitudinal Study of Young People in England: Department for Education. DFE-RR-234.

[30] Save the Children (2016) Ready to read: Closing the gap in early language skills so that every child in Northern Ireland can read well.

[31] Mariani, E. & Özcan, B. (2017) Family Trajectories and Well-being of Children Born to Lone Mothers in the UK. European Journal of Population. Volume 33, Issue 2.

number of single-parent families. In BCR 16% of households with children are single parent families (compared to 12% in NI). Childcare responsibilities can be a heavy on lone parents, particularly if they are responsible for childcare as well as earning a living for their family. Data from the Households Below Average Income (HBAI) survey highlights that over the past decade lone parents have had the highest levels of poverty in NI relative to other household types. In 2013/14-2015/16 40% of lone parent households were in relative income poverty and are thus disproportionately affected by the factors associated with households in poverty.

- **Time investment:** If parents have to work more they are likely to spend less time with their children and there is some evidence that full-time work by mothers in the very early years of a child's life can be detrimental to their child's social development[32]. Longer periods of full-time employment by mothers when their children were aged one to five tend to reduce a child's chances of obtaining A-level (or equivalent) qualifications, and increase the child's risk of unemployment and economic inactivity in early adulthood[33].

23. **Poorer children are less likely to experience home environments featuring many of the positive influences on a child's education listed above.** This is important due to the persistence of the impacts whereby an educational gap has emerged in the early years of a child's life. A recent report by Save the Children[34] highlighted that a child in NI with weak language skills at the age of five is much less likely to be a strong reader by the age of eleven than a five year old with strong language skills. Children who had experienced poverty persistently scored 38% less on reading tests at age seven and 23% less on comprehension tests at age eleven than a child who never experienced poverty with above average language skills.

24. The home learning environment is at least as important as parent's socioeconomic status. However, positive home-learning environments tend to be more likely in more affluent households. **The policy challenge is to help these vulnerable families build up more supportive environments despite the many economic and social difficulties they face.**

25. The earliest years of a child's life are critical with regard to their development. Therefore, families play arguably a more important role than the school a child attends or the teacher they have. **Young children at risk of low educational achievement who have not yet begun formal education should not be beyond the reach of public policy.** A child's education is not something that begins at school, and inequality is evident at an early stage. It should be acknowledged that intervention at the earliest point possible is needed to compensate for poor parenting and that investment should be sustained throughout a child's schooling. **Intervention**

[32] Gregg P, Washbrook E, Propper C, Burgess D. (2005) The effects of a mother's return to work decision on child development in the UK, Economic Journal, Vol: 115, Pages: F48-F80, ISSN: 0013-0133.

[33] Joseph Rountree Foundation (2001) The effect of parents' employment on outcomes for children.

[34] Save the Children (2016) Ready to Read: Closing the gap in early language skills so that every child in England can read well.

at an early stage can mitigate some of the negative influences that occur prior to a child joining primary school.

Early childhood education and care services

26. It is beyond the scope of this research to undertake a review of the quality of pre-school provision, or to assess longer-term impacts associated with existing provision within BCR. However, it would be remiss not to draw attention to the growing research base which emphasises the importance early years interventions has on long term skills development and ultimately labour market outcomes.

27. This report concentrates on the number of funded pre-school places required in BCR over the next 12 years. In 2017/2018 the number of funded places provided was 12,510 in BCR.

Table 5.3: Funded pre-school enrolment by school type, LGD (2017/2018)

Local Government District	Nursery schools/ classes in primary schools	Voluntary and private preschools	Reception classes in primary schools	Total funded pre-school
Antrim and Newtownabbey	1,250	460	20	1,730
Ards and North Down	980	740	10	1,730
Armagh City, Banbridge and Craigavon	1,970	790	20	2,780
Belfast	3,670	740	0	4,410
Causeway Coast and Glens	900	760	20	1,680
Derry City and Strabane	1,700	360	10	2,070
Fermanagh and Omagh	750	730	40	1,520
Lisburn and Castlereagh	180	530	0	710
Mid and East Antrim	950	610	0	1,560
Mid Ulster	320	1,180	0	1,500
Newry, Mourne and Down	1,270	1,070	50	2,390
Belfast City Region	**8,290**	**4,140**	**80**	**12,510**
NI	15,360	7,954	186	23,500

Source: Department for Education

Notes: NI total will not add to the sum of individual council areas. Specifically, figures for voluntary and private preschools are not provided for Lisburn and Castlereagh or Mid-Ulster.

Demographic influences on future need for early childhood education and care services

28. **The birth rate in BCR is similar to the NI average, 64% and 66% respectively** (birth rate per 1,000 female population aged 15-44). This suggests the trend in the number of children requiring access to early childhood education and care services in BCR will be relatively similar to the NI average.

29. However, the rate varies across constituent BCR LGDs from a high of 73% in Newry Mourne and Down to a low of 62% in BCC.

Table 5.4: Birth rates and characteristics, LGD (2016)

Local Government Districts	Birth rate per 1,000 female population aged 15-44 years	Births to teenage mothers (%)	Births to unmarried mothers (%)	Births to single parent home (%)
Antrim and Newtownabbey	63.4	3.4%	43.2%	22.9%
Ards and North Down	59.1	3.2%	39.6%	18.5%
Armagh City, Banbridge and Craigavon	72.3	2.7%	40.0%	19.8%
Belfast	61.8	5.3%	57.6%	41.1%
Causeway Coast and Glens	62.1	3.3%	47.2%	28.6%
Derry City and Strabane	66.3	3.3%	55.8%	44.3%
Fermanagh and Omagh	70.3	1.7%	30.3%	16.5%
Lisburn and Castlereagh	66.6	2.8%	34.7%	16.8%
Mid and East Antrim	62.7	3.6%	41.7%	23.8%
Mid Ulster	73.7	2.4%	31.1%	15.8%
Newry, Mourne and Down	73.0	2.1%	37.9%	22.3%
Belfast City Region	64.1	**3.7%**	**45.4%**	**27.6%**
NI	66.2	3.3%	43.5%	26.4%

Sources: NISRA & ONS

Notes: Single parent homes are calculated through the aggregation of joint registrations at different address and sole resistrations, divided by the total number of births.

30. **The proportion of births to teenage mothers within BCR is slightly above the NI average**, 3.7% and 3.3% respectively. The figure is **influenced by BCC where the proportion of births to teenage mothers is 5.3% (highest rate amongst LGDs).** The remaining council areas which comprise BCR each have rates of teenage motherhood below 3.6%, falling as low as 2.1% in Newry, Mourne and Down. Empirical literature in the UK suggests children born to teenage mothers have weaker adult outcomes in relation to education, labour market, economic inactivity, earnings, teenage childbearing, and health[35].

31. In BCR 27.6% of births are registered to single parent homes, this is slightly above the NI average (26.4%). **Despite BCR's close proximity to the NI average, the rate of births to single parent families varies significantly across each of the LGDs which make up BCR.** For example, in BCC over 41.1% of births are within single parent homes. Whereas, in Lisburn and Castlereagh only 16.8% of births are to a single parent home.

32. As mentioned earlier in this report, lone parents are the demographic group in society most at risk of experiencing poverty. They are often characterised by inextricable links to factors which negatively impact on a child's education performance in the early years (e.g. low income, low qualifications, time limitations etc.).

33. **Relative to the NI average BCR has a slightly higher proportion of births to unmarried mothers**, 43.5% and 45.4% respectively. The figure is driven upwards by the proportion of births to unmarried mothers in BCC (57.6%).

34. The figure overleaf illustrates the positive relationship between the proportion of births to unmarried mothers and the proportion of school leavers in the same wards

[35] Francesconi, M. (2008), "Adult Outcomes for Children of Teenage Mothers", Scandinavian Journal of Economics, 110, 93–117.

who have failed to achieve at least 5 GCSE's A*-C including English and maths. Although unmarried mothers are different to single parent homes or lone parents it can be used as a rough proxy in the absence of data for single parent homes at ward level.

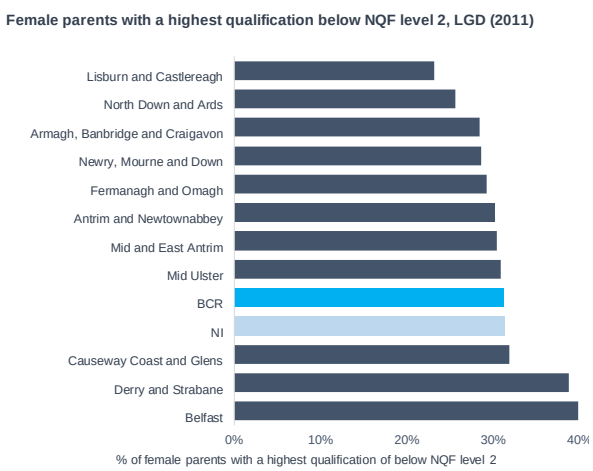
Figure 5.5: Births to unmarried mothers (2014/2015) versus school achievement levels (2013/2014-2015/2016), BCR wards

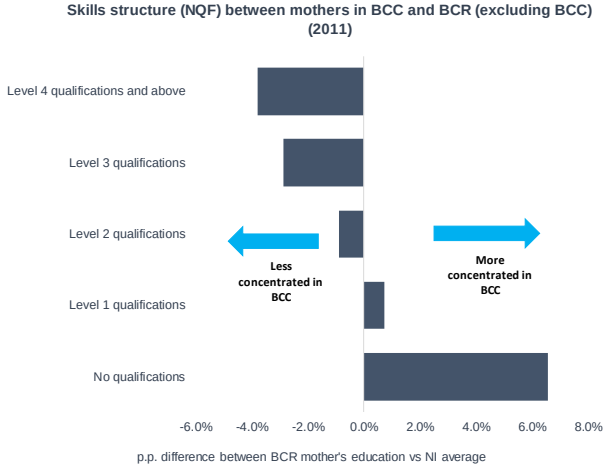
Source: NISRA, NI School Leavers Survey

35. The wards within BCR vary significantly with regard to educational performance and the proportion of children born to unmarried mothers. However, the illustrated relationship between the two variables is strong enough to suggest **household structure is an important influence on education performance. Therefore it could be helpful in identifying specific communities where children are at risk of falling behind in their education journey.**

36. It is important to note the educational attainment of parents as it is a strong predictor in the educational performance of children (as previously discussed in this chapter). Analysing the skill profile of mothers of seven year old children in BCR from the 2011 Census highlights 31% of mothers achieved a highest qualification level below NQF level 2. Although this figure is equal to the NI average it is skewed by the low achievement of mothers in BCC. In other words, in BCC 40% of mothers of seven year olds have below NQF level 2 qualifications compared to 32% in the remaining BCR LGDs.

Figure 5.6: Skill structure of mothers of children aged 7, LGDs (2011)



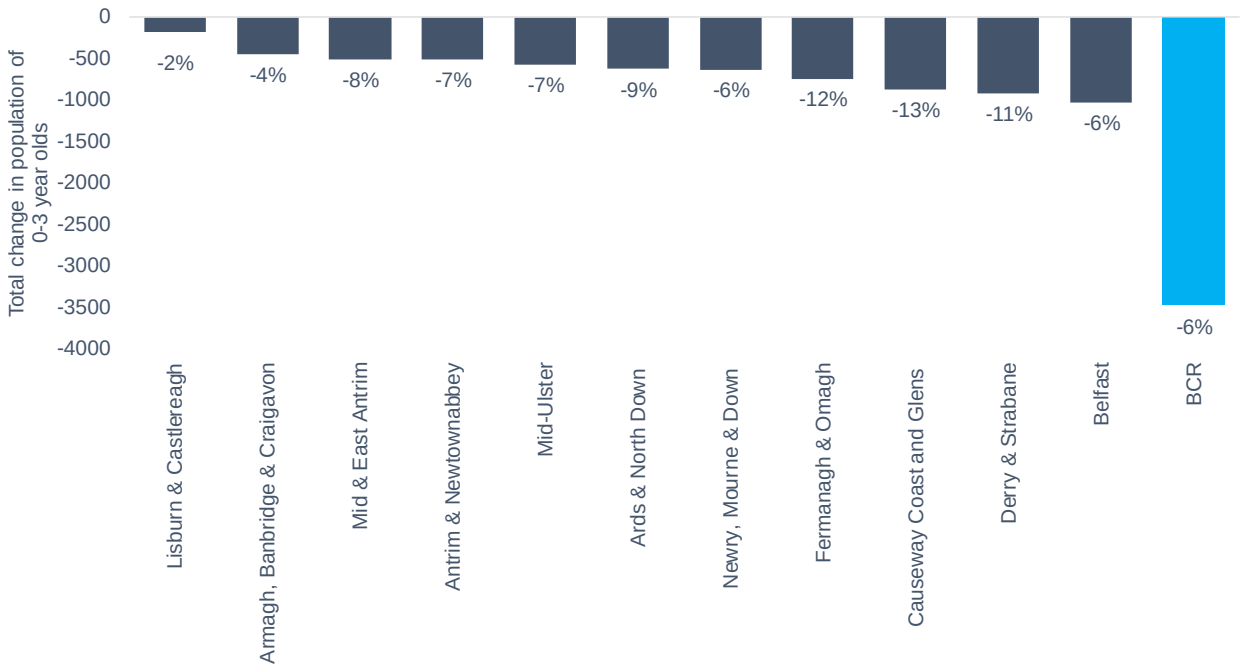


Source: NI Census 2011
Note: Below NQF level 2 includes 'other' qualifications not included on the NQF framework, in addition to apprenticeships that are not defined by NQF level.

Source: NI Census 2011

37. **Population projections from NISRA highlight that the number of children under 4 years old in BCR will decrease by 3,480 by 2027 compared to 2017.** The decline in BCR of 6% over the ten year period is similar to the overall NI average decline of 7.2%. However, as illustrated in the figure below the rate of decline varies amongst the LGDs within BCR. However, it is worth mentioning that NISRA's baseline population forecasts will not account for the additional economic activity associated with the high growth scenario. Therefore, if the levels of job creation associated with the high growth scenario are achieved the decrease in the number of children is likely to be of a lower scale.

Figure 5.7: Change in population of children aged 0–3 years old, LGDs (2016-2030)



Source: NISRA population projections

38. The implication of having a smaller number of children will be a lower demand for pre-school places. The table below provides an overview of the places required (assuming the distribution of pre-school type remains unchanged).

Table 5.5: Change in funded pre-school enrolment by school type, BCR (2017-2027)[36]

School type	Required places (2027)	Net change (2017 - 2027)
Nursery schools/ classes in primary schools	7,770	-520
Voluntary and private preschools	3,880	-260
Reception classes in primary schools	70	-10
Total funded pre-school	**11,720**	**-790**

Source: NISRA, DE and UUEPC

Note: Figures for voluntary and private pre-schools are not provided for Lisburn and Castlereagh

39. Nursery schools and classes in primary schools account for two thirds (66%) of pre-school enrolments in BCR, marginally higher than the NI average (65%). Subsequently, one third (33%) of pre-school enrolments are within voluntary and private pre-schools, relative to 34% in NI.

40. Although the overall BCR rates are similar to the NI average, the figures vary within the LGDs which make-up BCR. For example, over eight out of every ten (83%) pre-school enrolments in BCC are within nursery schools or classes in primary schools. Whereas, in Ards and North Down 56% of pre-school enrolments are within the same category.

41. The declining population of 0–3 year olds translates to approximately 790 less pre-school places required in BCR by 2027, with the largest reduction in-demand being felt by nursery schools and classes in primary schools.

Primary education

42. Publically available data relating to the performance of primary school pupils is scarce in NI. One of the main datasets available to researchers is the results at Key Stage 2 (KS2). KS2 results are used to measure the progress of primary school pupils in Years 5–7. Pupils are expected to achieve level 4 in KS2 assessments by the end of primary school.

43. Communication (reading, writing, talking and listening) is an important skill in the early years of a child's education. Those who fail to read properly by the end of primary school commonly have poor educational outcomes at age 16[37] and a lack of literacy skills holds back potential earnings in the labour market[38]. The proportion of children in BCR failing to reach level 4 proficiency in communication by the end of KS2 assessment was 23% in 2012, equal to the NI average. BCR hosts both the best performing LGD (Newry, Mourne and Down – 19% not achieving level 4 proficiency in

[36] A full breakdown of pre-school enrolments by school type for BCR LGDs is provided in Annex G1.h

[37] Cassen, R. & Kingdon, G. (2007) *Tackling low education achievement,* Report to the Joseph Rountree Foundation, York: Joseph Rountree Foundation.

[38] Hansen, K. & Vignoles, A. (2005) The United Kingdom in a comparative context. In S, Machin and A. Vignoles (Eds) What's the good of education? The economics of education in the United Kingdom, Princeton, NJ: Princeton University Press.

communication) and worst performing region (BCC – 28%). Although proficiency varies across BCR, **a failure rate of almost one in four (23%) pupils for what is essentially basic reading, writing and communication skills is too high.**

Table 5.6: Key Stage 2 assessment results, LGDs (2012)

	Communication in English			Using maths		
	Pupils achieving level 4 or above (%)	% of wards in lowest performing quartile	% of wards in lowest performing decile	Pupils achieving level 4 or above (%)	% of wards in lowest performing quartile	% of wards in lowest performing decile
Antrim and Newtownabbey	78%	10%	7%	80%	9%	11%
Ards and North Down	77%	10%	9%	78%	7%	11%
Armagh City, Banbridge and Craigavon	77%	9%	9%	79%	9%	2%
Belfast	72%	23%	33%	74%	19%	30%
Causeway Coast and Glens	77%	9%	9%	78%	10%	9%
Derry City and Strabane	79%	6%	2%	79%	9%	7%
Fermanagh and Omagh	79%	9%	7%	81%	8%	4%
Lisburn and Castlereagh	78%	9%	7%	79%	8%	9%
Mid and East Antrim	77%	9%	9%	78%	12%	11%
Mid Ulster	79%	4%	9%	82%	6%	4%
Newry, Mourne and Down	81%	3%	2%	81%	4%	2%
Belfast City Region	**77%**	**63%**	**65%**	**78%**	**59%**	**74%**
Northern Ireland	77%	-	-	79%	-	-

Source: DE

44. In relation to KS2 mathematics BCR is again similar to the NI average, 78% and 79% respectively achieving level 4 or above. However, there is a range of proficiency when separately analysing each of the LGDs which comprise BCR. For example, in BCC more than one in four (26%) children fail to reach level 4 at KS2 in numeracy, compared to one in five (20%) in Antrim and Newtownabbey.

45. Although the majority of people have acquired an adequate level of numeracy skills by the time they complete formal education, there is a significant minority who have not. The results from the Organisation for Economic Co-operation and Development (OECD) Programme for the International Assessment of Adult Competencies (PIAAC) suggest that approximately one third of adults struggle to complete basic maths tasks (e.g. working out change from grocery shopping or applying a discount to the price of an item).

46. The PIAAC results indicate there are high proportions of the adult population with numeracy skills equivalent to that of a child who has successfully completed KS2 assessment. **From a policy perspective this not only indicates a need to upskill working age adults, but also to ensure that the flow of people with sub-optimal numeracy and literacy skills expected should be minimised from the earliest age possible.**

47. BCR as a whole compares closely to the NI average in relation to the proportion of low achievers. However, it should be noted that there is significant variation in achievement across areas within BCR. Most predominantly BCC remains an outlier relative to other council areas. Therefore, it can be concluded there is a concentration of children who have fallen behind within BCC or failed to catch up, by the end of primary education.

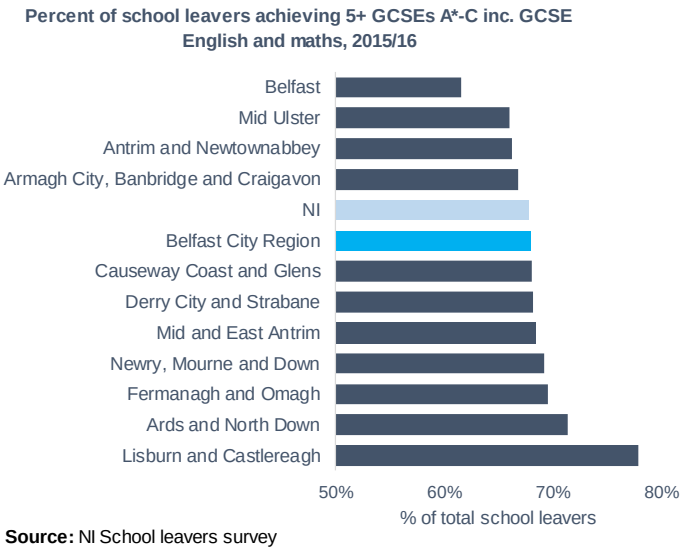
Post-primary school[39]

Recent performance

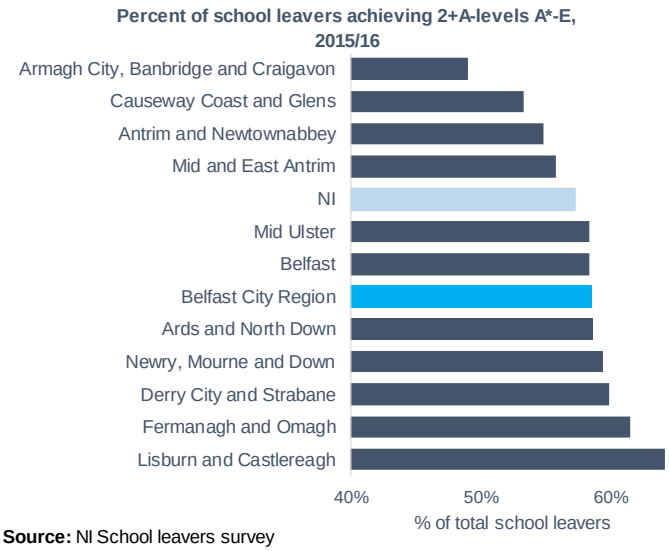
48. **The proportion of school leavers in BCR achieving 5 GCSE's A*-C including English and maths is equal to the NI average** (68%). However, for those school leavers achieving at least 2 A Levels A*-C or equivalent BCR performs marginally better than the NI average (58.6% compared to 57.3% in NI as a whole).

49. The variation in achievement across BCR ranges from 78% of school leavers achieving 5 GCSEs A*-C including English and maths in Lisburn and Castlereagh to 62% in BCC. In relation to school leavers achieving 2 A-Levels A*-E the proportions range from 64% in Lisburn and Castlereagh to 55% in Antrim and Newtownabbey.

Figure 5.8: GCSEs and A-level attainment of school leavers, LGD (2015/2016)



Source: NI School leavers survey

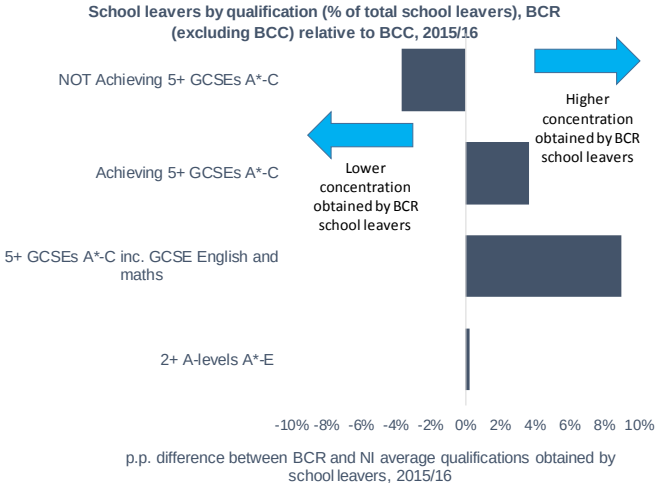


Source: NI School leavers survey

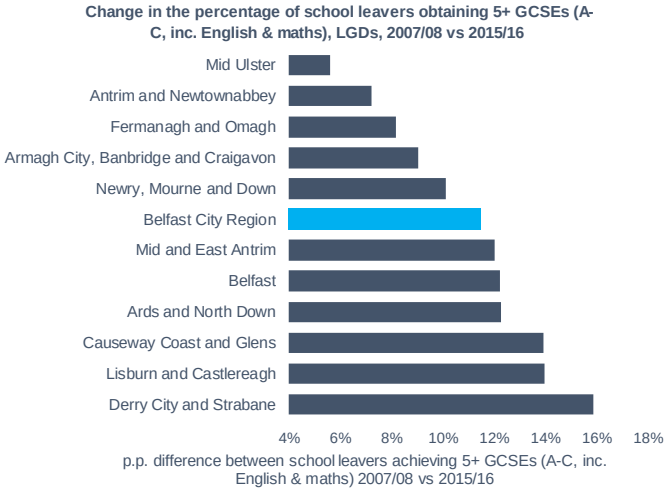
50. **It should be noted that the performance of school leavers achieving at least 5 GCSEs A*-C within BCR has improved over the previous 8 years** for which there is available data. In 2007/2008 56% of school leavers achieved 5 GCSEs A*-C including English and maths. This has improved by 12 percentage points to a figure of 68% for the year 2015/16. The differences over the 8 year period across the LGDs within BCR range from 14 percentage points in Lisburn and Castlereagh to 7.3 percentage points in Antrim and Newtownabbey. However, it is important to stress that this may represent improvements to assessment methods within the education system rather than an overall improvement in the ability of school leavers.

[39] All data relating to academic performance refers to children resident in BCR.

Figure 5.9: Skill structure of school leavers, BCR relative to NI (2015/2016) and change in qualification across LGDs[40] (2007/2008-2015/2016)



Source: NI School leavers survey



Source: NI School leavers survey

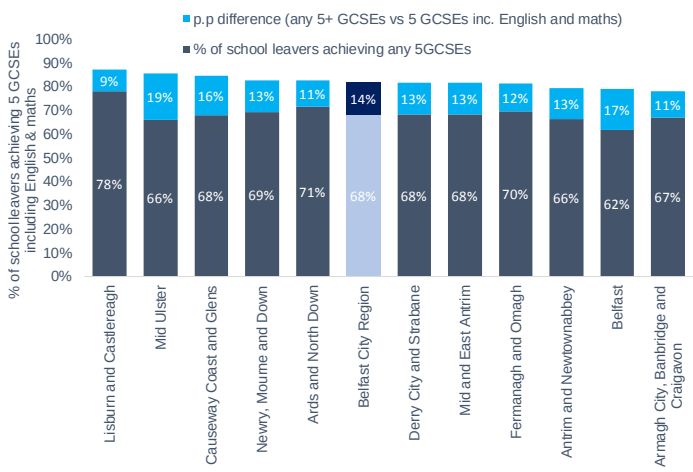
51. BCR excluding BCC hosts a higher proportion of school leavers with 5 GCSEs A*-C including English and maths, relative to the BCC. On the other end of the school leavers skills spectrum BCR hosts a lower proportion of leavers not achieving 5 GCSEs A*-C, relative to BCC.

52. It is important to note the difference in the proportion of leavers achieving 5+ GCSEs A*-C including English and maths and 5+ GCSEs A*-C (not including English and maths). At least a pass in both subjects is often a prerequisite for many jobs in the labour market, as well as a pre-condition for entry to many education and training courses. A high difference between the two achievements in an area could indicate a barrier to labour force participation. **In BCR the proportion of school leavers achieving 5+ GCSEs A*-C including English and maths is 14 percentage points lower those without the two core subjects.**

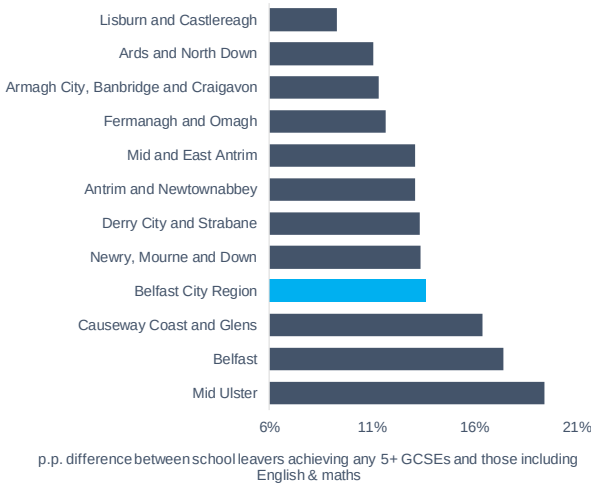
53. The difference between those achieving and not achieving a pass in the two core subjects varies across LGDs which constitute BCR. For example, in Lisburn and Castlereagh there is a difference of 10 percentage points whereas in BCC the difference is 18 percentage points.

[40] A full list of each LGD is provided in Annex H1.

Figure 5.10: Comparison of school leavers achieving any 5 GCSEs A*-C and those that include English and maths, LGDs (2015/2016)



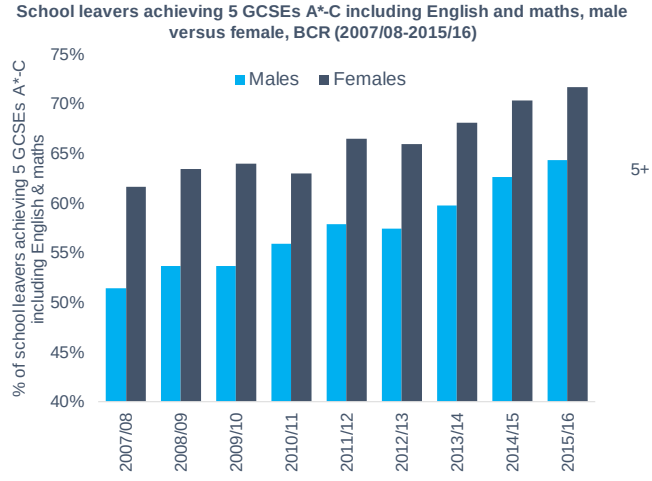
Source: NI School leavers survey



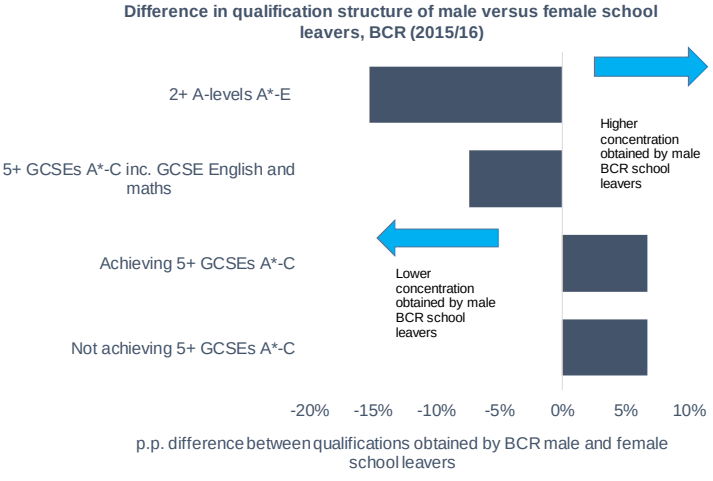
Source: NI School leavers survey

54. There are also gender differences in the performance of school leavers within BCR wherein girls typically outperform boys. For example, a higher proportion of girls achieved at least 5 GCSE's A*-C including English and maths relative to boys (71.7% for girls compared to 64.3% for boys). Whereas, boys are more likely to not achieve 5+ GCSEs A*-C, relative to girls (15.0% for girls and 21.8% for boys).

Figure 5.11: School leavers achieving 5+ GCSEs A*-C including English and maths, male versus female, BCR (2015/2016)[41]



Source: NI School leavers survey



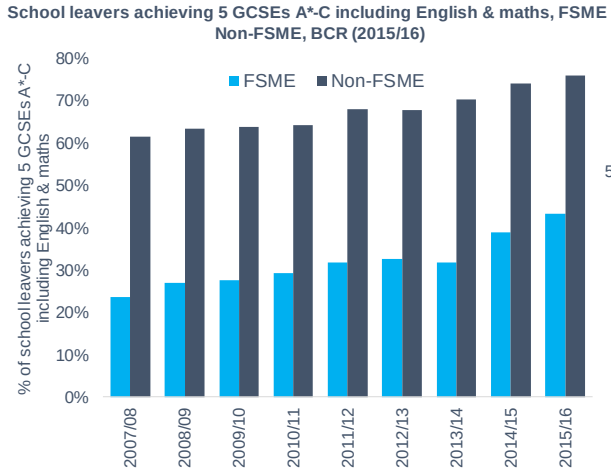
Source: NI School leavers survey

55. Analysis of school leaver qualifications by their socioeconomic status, defined by Free School Meal Entitlement (FSME), highlights stark differences within BCR. Broadly speaking, **pupils that receive FSME achieve a significantly lower level of academic qualifications compared to their peers not receiving FSME.** For example, almost one quarter (25%) of school leavers not receiving FSME do not achieve 5+ GCSEs A*-C including English and maths. This figure compares to 57% for school leavers in receipt of FSME.

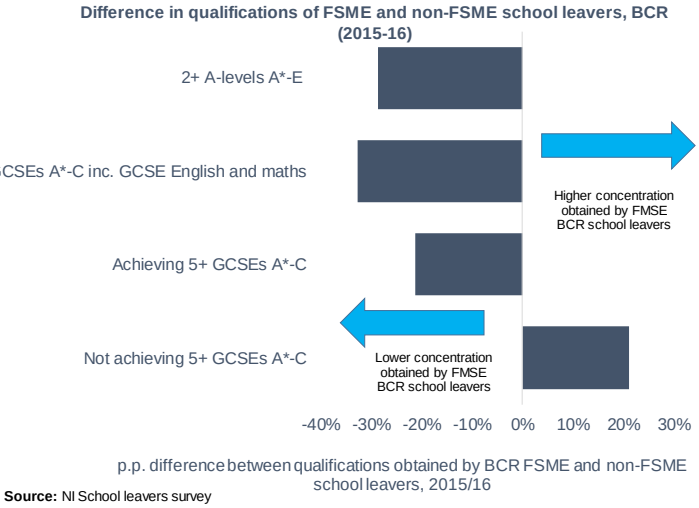
[41] A full list of each BCR LGD is provided in Annex I1.

56. **Despite an overall increase in the proportion of FSME pupils achieving 5+ GCSEs A*-C including English and maths over the past decade, the gap between FSME children and non-FSME children has remained unchanged[42].** Although there have been positive improvements in the outcomes of children receiving FSME, 43% of disadvantaged pupils achieving a level of education that many employers consider to be the minimum standard expected from compulsory education is an unsatisfactory social outcome. **A failure to address inequities amongst young people at an early age, and throughout their school journey causes a long tail of underperformance at GCSE level which perpetuates in the form of worklessness and poverty concentrated in deprived communities in later years.**

Figure 5.12: School leavers achieving 5 GCSEs A*-C including English and maths, FSME vs Non FSME, BCR (2015/2016)[43]



Source: NI School leavers survey



Source: NI School leavers survey

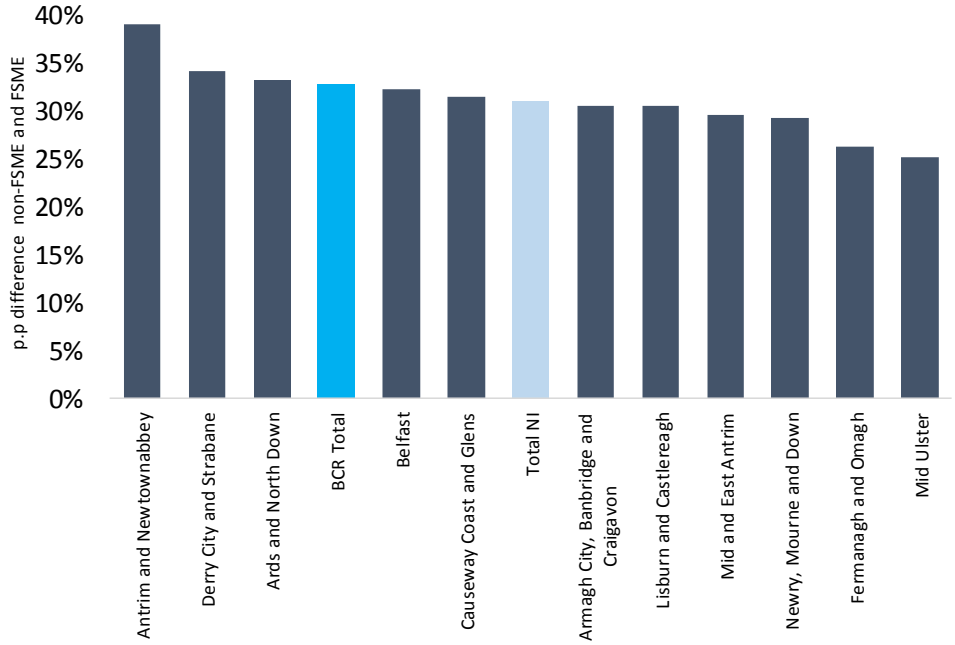
57. Similarly, pupils receiving FSME are much less likely than non-FSME pupils to achieve at least 2 A-levels A*-E (37.0% compared to 66.7% respectively). This suggests a **lower rate of enrolment in tertiary level education courses is likely amongst those children who are socioeconomically deprived, relative to their more affluent peers.**

58. The achievements of pupils receiving FSME against non-FSME differ throughout the LGDs which comprise BCR. For example, the gap between those achieving 5+ GCSEs A*-C including English and maths for FSME pupils against non-FSME is largest in Antrim and Newtownabbey (39 percentage points) and lowest in Newry Mourne and Down (29 percentage points).

[42] It should also be noted that the number of pupils entitled to FSM has increased in recent years due to a change in eligibility criteria.

[43] A full list of each relative LGD is provided in Annex I2.

Figure 5.13: Difference in school leavers achieving 5+ GCSEs A*-C including English and maths, FSME vs non-FSME, LGDs (2015/2016)



Source: NI School leavers survey

59. A further gender breakdown of FSME against non-FSME highlights there is a marginally larger difference between the achievements of boys receiving FSME against non-FSME, relative to the same difference for girls. For example, **the difference in the proportion of school leavers achieving 2+ A-Levels A*-E is in excess of 29 percentage points between male FSME pupils and non-FSME pupils. This compares to 27 percentage point difference for girls.**

Table 5.7: Qualifications of school leavers by gender and FSME versus non-FSME, BCR (2015/2016)[44]

% of school leavers achieving	Male (2015/16)			Female (2015/16)		
	FSME	Non-FSME	p.p. difference	FSME	Non-FSME	p.p. difference
2+ A-levels A*-E	29%	59%	**-29%**	46%	73%	**-27%**
5+ GCSEs A*-C inc. GCSE English and maths	40%	73%	**-33%**	47%	80%	**-33%**
Achieving any 5+ GCSEs A*-C	62%	84%	**-22%**	70%	90%	**-20%**
Not achieving 5+ GCSEs A*-C	38%	16%	**22%**	30%	10%	**20%**

Source: NI School leavers survey

60. **The difference in the proportion of school leavers achieving 5 GCSE's A*-C including English and maths is in excess of 33 percentage points between FSME and non-FSME pupils amongst both males and females.** This is an extremely disappointing statistic and raises important questions of equity within the education system**. This characteristic is inherent across NI's education system and not specific to BCR.**

61. An analysis of school performance using small area geographies highlights BCR accounts for a disproportionately high number of neighbourhoods with a high

[44] A full list of the differences in the gender breakdown of pupils receiving FSME and those not receiving FSME entitlement is provided for each of the LGDs which comprise the BCR area in Annex I3.

proportion of low achievers. In other words, BCR accounts for 56% of total wards in NI, yet accounts for 78% of all wards in the lowest performing decile.

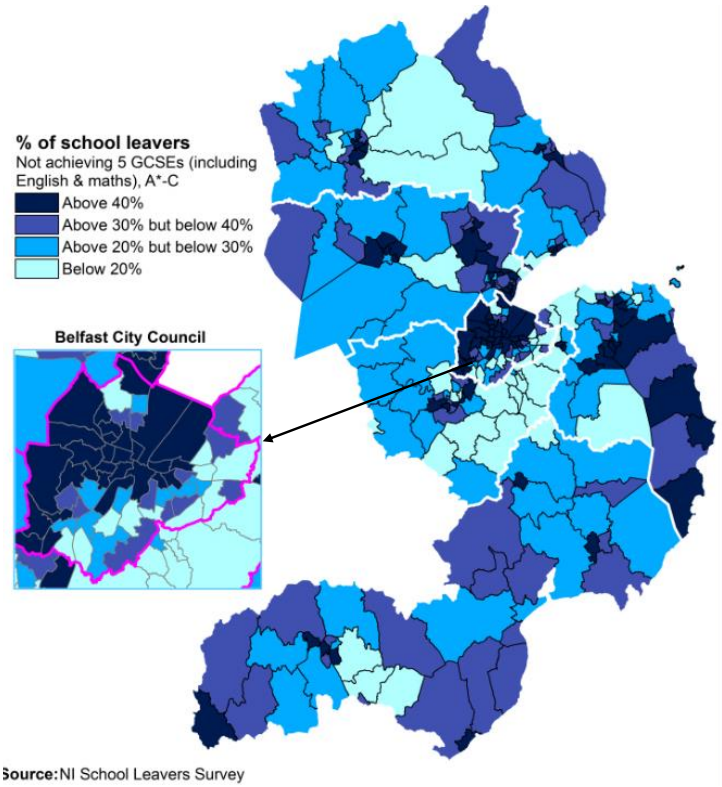
Table 5.8: School leavers not achieving 5 GCSEs A*-C including English and maths, NI wards (2015/2016)

Local Government District	% of wards	% of wards in lowest achiveing quartile	% of wards in lowest achiveing decile	% of wards in BCR in lowest achieving decile
Antrim and Newtownabbey	9%	12%	15%	19%
Ards and North Down	9%	8%	7%	8%
Armagh City, Banbridge and Craigavon	9%	7%	9%	-
Belfast	13%	24%	39%	50%
Causeway Coast and Glens	9%	7%	7%	-
Derry City and Strabane	9%	12%	4%	-
Fermanagh and Omagh	9%	3%	0%	-
Lisburn and Castlereagh	9%	4%	4%	6%
Mid and East Antrim	9%	7%	11%	14%
Mid Ulster	9%	9%	2%	-
Newry, Mourne and Down	9%	6%	2%	3%
Belfast City Region Total	**56%**	**62%**	**78%**	**100%**

Source: NI School leavers survey

62. **The top ten lowest achieving wards in NI are all located within BCR (eight of which are located within BCC).** The top three wards are Woodvale (78%), New Lodge (74%) and Shankill (71%) - all within BCC. The highest achieving wards are also all located within BCR. The top three are Malone (2% - BCC), Stranmillis (4% - BCC) and Drumbo (8% - Lisburn and Castlereagh). This analysis emphasises the contrast in achievement within BCR and in particular the concentration of low achievement in inner city areas.

Figure 5.14: School leavers not achieving 5 GCSEs A*-C including English and maths, BCR wards (2013/2014-2015/2016 average)



Source: NI School Leavers Survey

Lowest Achievers in BCR

	Ward	LGD	%
1	Woodvale	Belfast	78%
2	New Lodge	Belfast	74%
3	Shankill	Belfast	71%
4	Ballymurphy	Belfast	68%
5	Ballee and Harryville	Mid and East Antrim	68%
6	Ardoyne	Belfast	67%
7	Rathcoole	Antrim and Newtownabbey	65%
8	Water Works	Belfast	64%
9	Turf Lodge	Belfast	64%
10	Falls	Belfast	63%

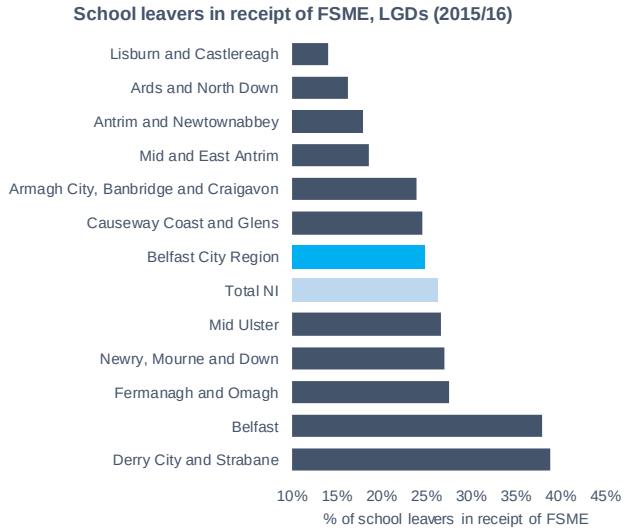
Highest Achievers in BCR

	Ward	LGD	%
1	Malone	Belfast	2%
2	Stranmillis	Belfast	4%
3	Drumbo	Lisburn and Castlereagh	8%
4	Ravernet	Lisburn and Castlereagh	8%
5	Cultra	Ards and North Down	9%
6	Knockbracken	Lisburn and Castlereagh	10%
7	Ballyholme	Ards and North Down	10%
8	Hillfoot	Belfast	10%
9	Helen's Bay	Ards and North Down	12%
10	Rosetta	Belfast	13%

63. There is an apparent correlation between socioeconomic indicators highlighting high levels of deprivation, poverty and worklessness and low levels of education achievement at GCSE level. **This highlights equity issues with regard to educational outcomes, and suggests that there is not equality of opportunity for children of all socioeconomic backgrounds in NI.**

64. **The figure below highlights BCR has a lower concentration of disadvantaged pupils (defined by FSME), relative to the NI average.** One in four pupils (25%) in BCR are in receipt of FSME, compared to 26% in NI as a whole **However, it should be noted BCR hosts LGDs at both ends of the scale.** For example, in BCC almost two in five (38%) school leavers are receiving FSME, compared to 14% in Lisburn and Castlereagh.

Figure 5.15: School leavers entitled to FSME by LGD (2015/2016), and comparison between relative concentrations of FSM entitlement to size of LGD



Source: NI School leavers survey

Proportion of wards in LGD compared to proportion of wards in top decile of pupils entitled to FSM (2015/16)

Local Government District	% of wards	% of wards in top declie of pupils entitled to FSM
Antrim and Newtownabbey	9%	2%
Ards and North Down	9%	0%
Armagh City, Banbridge and Craigavon	9%	4%
Belfast	13%	50%
Causeway Coast and Glens	9%	2%
Derry City and Strabane	9%	26%
Fermanagh and Omagh	9%	4%
Lisburn and Castlereagh	9%	0%
Mid and East Antrim	9%	4%
Mid Ulster	9%	2%
Newry, Mourne and Down	9%	4%
Belfast City Region Total	**56%**	**61%**

Source: NI School leavers survey

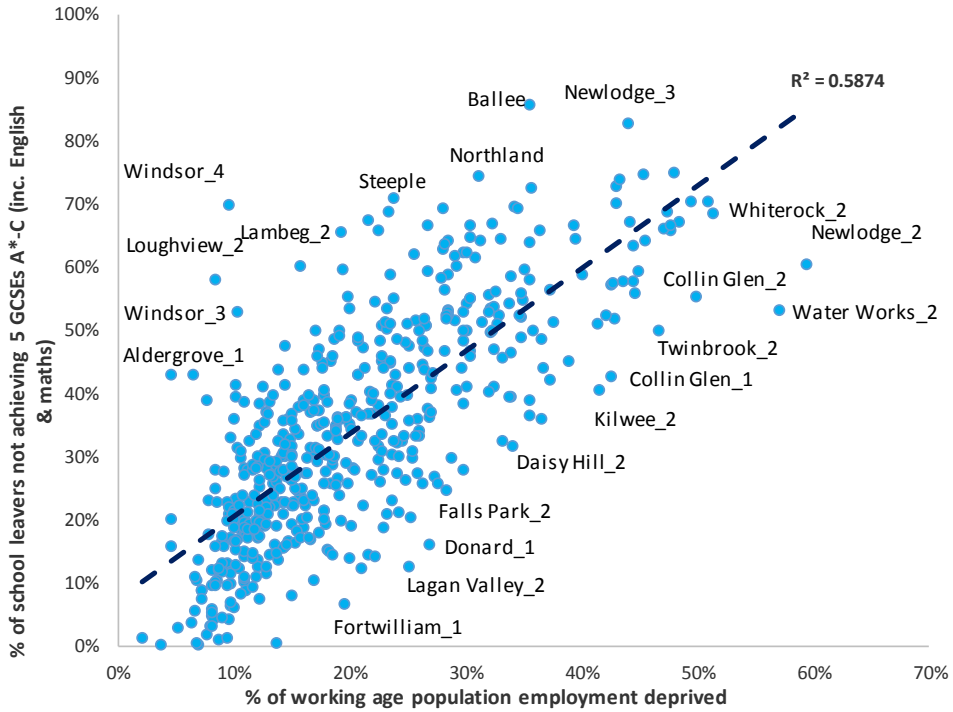
65. The proportion of wards within a region relative to the proportion of pupils in receipt of FSME within the same region indicates if the area has a proportionate or disproportionate share of disadvantaged pupils. In BCR as a whole the proportion of wards relative to pupils in receipt of FSME is proportionate (56% of wards versus 55% of NI FSME pupils).

66. However, this does not directly translate to equity within the region. Rather, **analysing separate LGDs which comprise BCR highlights one outlier and a cluster of similar trending LGDs.** In other words, 13% of the 462 NI wards are within BCC, yet BCC accounts for half (50%) of the wards in the top decile with the highest proportion of children receiving FSME. Contrastingly, both Ards and North Down and Lisburn and Castlereagh account for 9% of total wards in NI but 0% of wards within the top decile of the highest proportion of children receiving FSME.

67. Given the range of outcomes within BCR this suggests disadvantaged pupils are concentrated within small pockets of the region, with a high concentration in BCC. As a result **low academic achievement is also concentrated within small pockets of BCR.**

68. Academic achievement in BCR correlates with other economic variables related to deprivation. For example, the figure below highlights that there is a positive correlation between employment deprivation and low achievement (not achieving 5 GCSEs A*-C including English and maths) within Super Output Areas (SOA's). The data suggests worklessness in local communities is a factor which holds back school achievement.

Figure 5.16: Relationship between achieving 5 GCSEs A*-C including English and maths and employment deprivation, BCR SOAs (2015/2016)



Source: NI Multiple Deprivation Measure

Note: *Employment deprived is defined as proportion of working age population who are in recipt of at least one employment related benefit, and individuals who are not in recipt of an employment related benefit, nor have received income from employment*

69. The patterns illustrated in the above figures hold at the NI level (see Annex J). This is an important point as although BCR has a proportionate number of total SOA's classified as employment deprived compared to the region's share in the quartile and decile, there are differences between the LGDs within BCR. For example, Antrim and Newtownabbey hold 8% of total NI SOA's and account for only 1% within the bottom decile. Contrastingly, BCC accounts for 20% of total SOA's yet 55% of those within the bottom performing decile.

Table 5.9: Comparison between relative size of LGDs and the proportion of the working age population who are employment deprived (2015/2016)

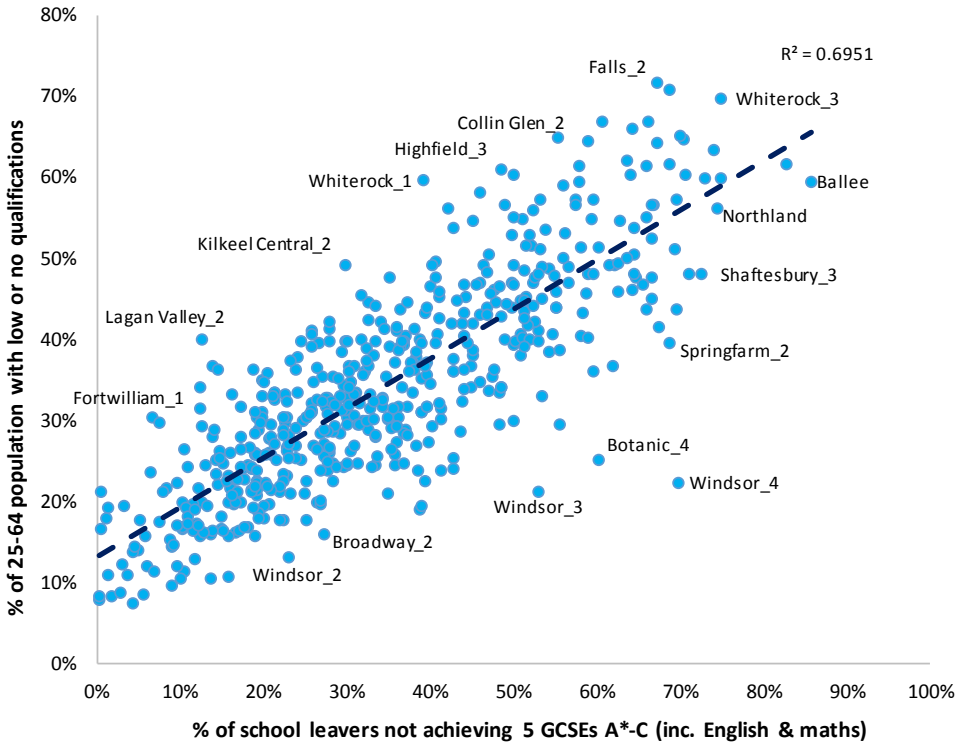
Local Government Districts	% of total SOAs	% of SOAs in bottom quartile	% of SOAs in bottom decile
Antrim and Newtownabbey	8%	4%	1%
Ards and North Down	10%	4%	1%
Armagh City, Banbridge and Craigavon	10%	6%	4%
Belfast	20%	37%	55%
Causeway Coast and Glens	8%	8%	3%
Derry City and Strabane	8%	17%	27%
Fermanagh and Omagh	6%	5%	3%
Lisburn and Castlereagh	8%	1%	0%
Mid and East Antrim	7%	6%	1%
Mid Ulster	7%	2%	0%
Newry, Mourne and Down	9%	9%	3%
Belfast City Region	**62%**	**61%**	**62%**

Source: NI Multiple Deprivation Measure

Note: Employment deprivation is measured as the proportion of working age population who are in receipt of at least one employment related benefit, and individuals who are not in receipt of the selected benefits, nor have received income from employment.

70. In general, statistical relationships between education achievement and economic indicators are stronger using small geographic classifications. This suggests that many of the challenges facing the NI education system are highly localised.

Figure 5.17: Relationship between achieving 5 GCSEs A*-C including English and maths and population aged 25–64 with low or no qualifications, BCR SOAs (2015/2016)



Source: NI Multiple Deprivation Measure

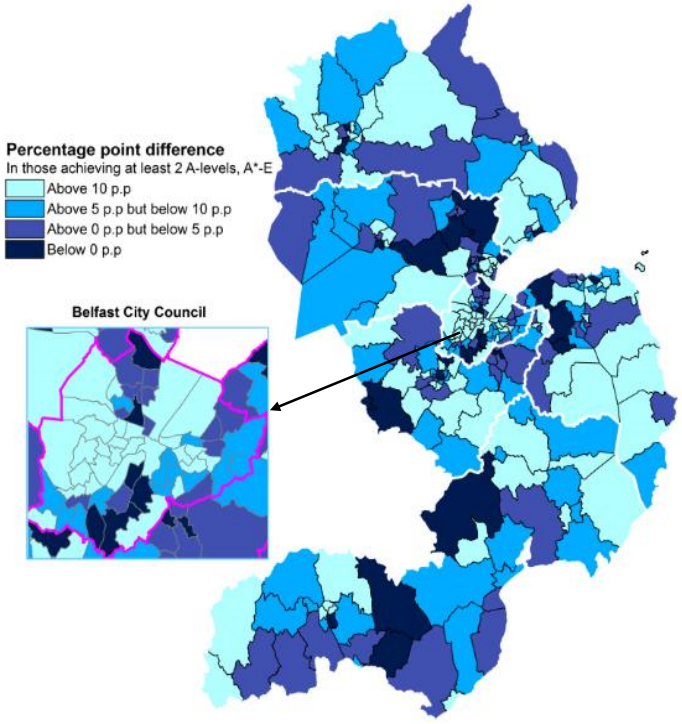
71. As discussed earlier in this chapter, empirical research highlights that levels of parental education have a strong influence on children's level of academic achievement. The figure above illustrates a significant association between the skills of the 25-64 year old population and academic performance. **The data suggests an**

intergenerational transfer of low skills whereby local communities in which the adult skills are low are also likely to be associated with school leavers having poor academic performance.

72. It is evident from the data that many of the areas propping up the bottom of the rankings with regard to low levels of achievement are the same areas that performed poorly 10 years earlier. Like many indicators of socioeconomic disadvantage the lack of progress over long time periods is often disappointing and suggests the current approach is not working.

73. Despite this, there has been an improvement across most areas of BCR over the past decade. The proportion of school children who leave school with at least two A-levels A*-E has increased from 47% in 2007/08 to 59% in 2015/16.

Figure 5.18: Change in the proportion of school leavers who achieve at least two A-levels grade A*-C, BCR, (2007-2010 versus 2013-2016)



Source: NI School Leavers Survey

Highest Improvement in BCR

	Ward	LGD	%
1	Falls	Belfast	26%
2	Clonard	Belfast	26%
3	Slemish	Mid and East Antrim	24%
4	Ballywalter	Ards and North Down	24%
5	Shaw's Road	Belfast	24%
6	Kells	Mid and East Antrim	23%
7	Beersbridge	Belfast	22%
8	Ballycrochan	Ards and North Down	20%
9	Drumaness	Newry, Mourne and Down	20%
10	O'Neill	Antrim and Newtownabbey	19%

Lowest/Negative change in BCR

	Ward	LGD	%
1	Boneybefore	Mid and East Antrim	-18%
2	Ballyhenry	Antrim and Newtownabbey	-12%
3	Ballyward	Newry, Mourne and Down	-9%
4	Ardeevin	Mid and East Antrim	-9%
5	Fairview	Antrim and Newtownabbey	-7%
6	Scrabo	Ards and North Down	-7%
7	Cairnshill	Lisburn and Castlereagh	-5%
8	Derryaghy	Lisburn and Castlereagh	-5%
9	Ballynure	Antrim and Newtownabbey	-5%
10	Moira	Lisburn and Castlereagh	-4%

74. At ward level four of the top 10 most improved wards in BCR are located in BCC. A further two are within Mid and East Antrim. Where areas of improvement are evident there may be opportunities to learn from best practice and assist schools in areas which have demonstrated little improvement yet remain towards the bottom of the education rankings.

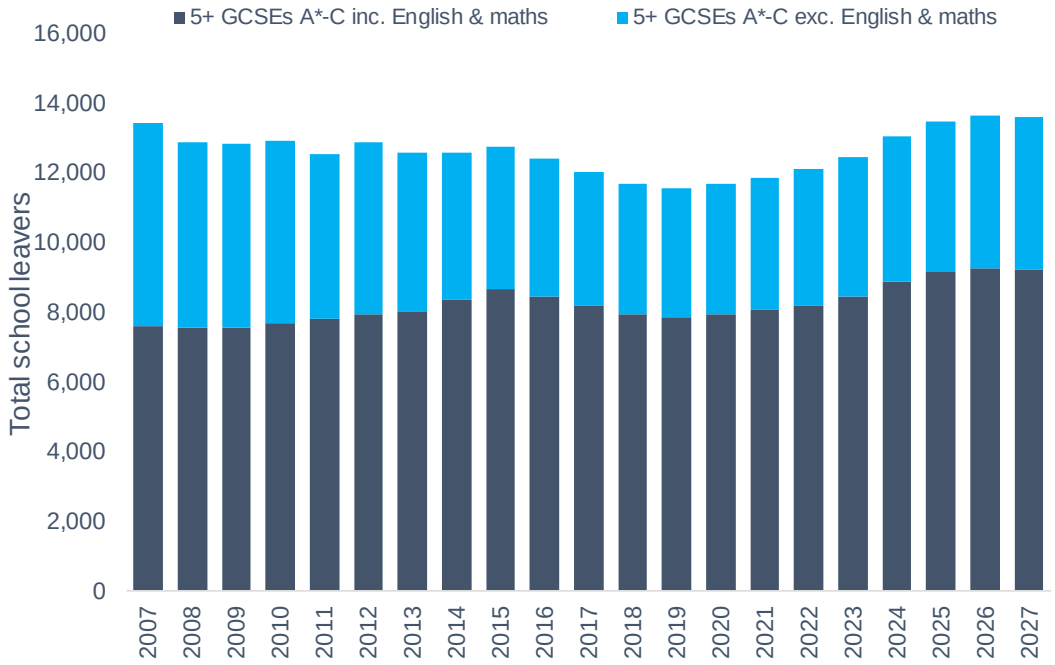
Future supply of skills from post-secondary education

75. Based on current demographics it is estimated that an average of 12,500 per annum children resident in BCR will leave the school system between 2017-27.

76. Assuming unchanged post-16 school participation and current performance in the school system it is estimated that **44,000 children resident in BCR over the next**

decade (2017-2027) will leave the school system without achieving the minimum standard of education expected by most employers. This is an important point, as a high proportion of school leavers with **low skills puts pressure on other parts of the education system**. Namely, high enrolment in publically subsidised courses at a relatively low NQF levels in FE and participation on publically funded training schemes such as Essential Skills and Training for Success (TfS).

Figure 5.19: School leavers achieving 5 GCSEs A*-C including English and maths vs those achieved 5 GCSEs (A*-C) excluding English and maths, BCR, (2007–2027)



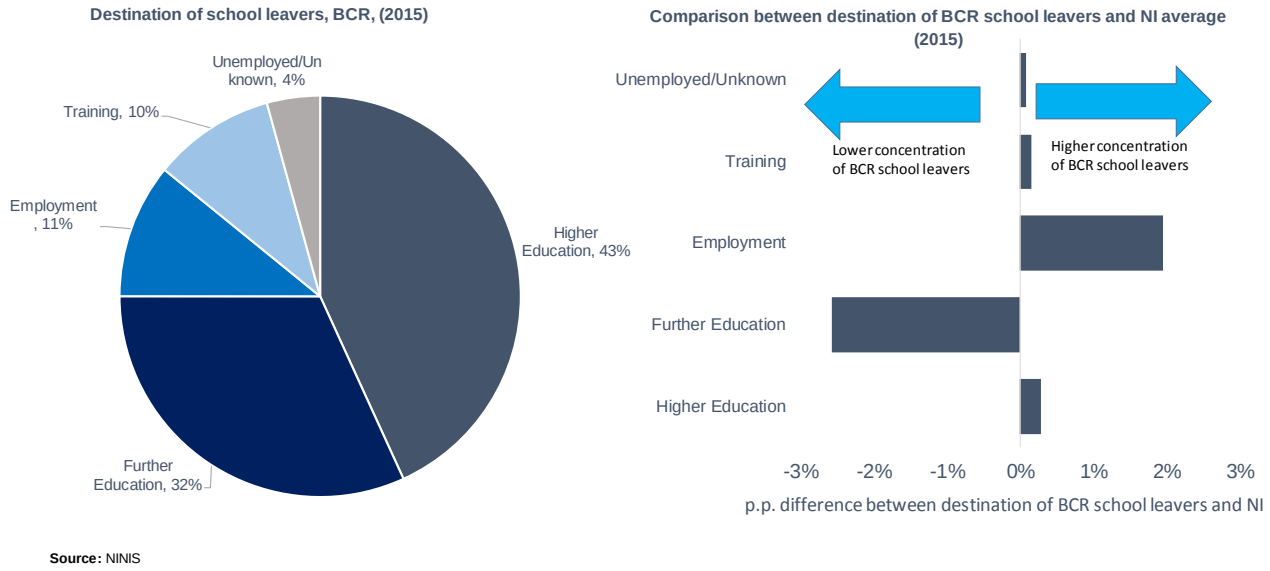
Source: NI School leavers survey

Post-secondary

Destination of school leavers

77. Upon leaving school 43% of school leavers proceed to HE and 32% to FE. The proportion in BCR leaving to HE is equal to the NI average (43%). However, the number of BCR school leavers proceeding to FE is slightly lower than the NI average (32% and 34% respectively). **School leavers in BCR are more likely to leave school to become employed (11%) compared to the NI average (9%)**. The rates of remaining destinations of school leavers in BCR are also equal to NI average; participate in a training programme (10%); and become unemployed/other status (4%).

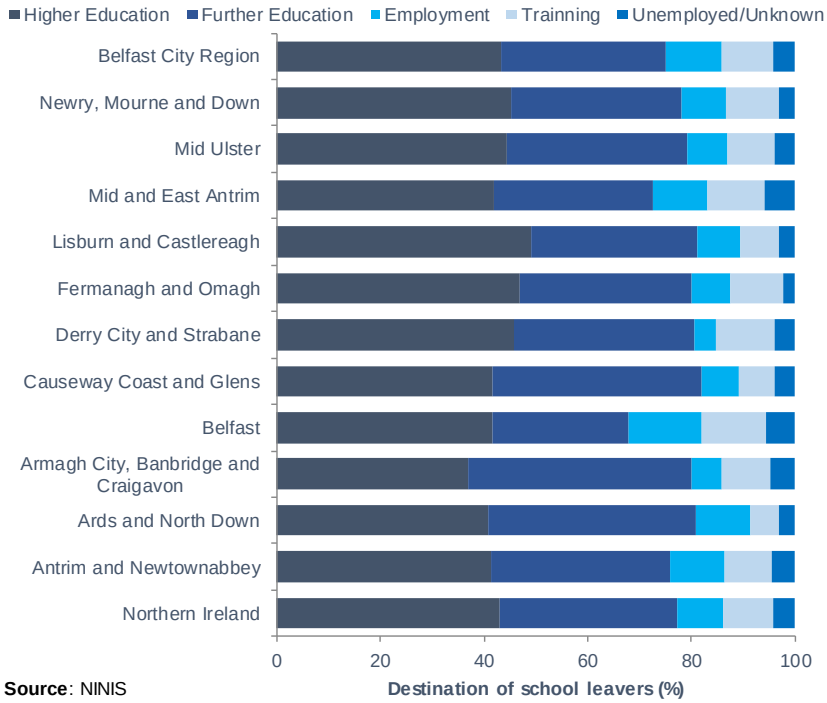
Figure 5.20: Destination of BCR school leavers as a percent of total and comparison with the NI average (2015)



Source: NINIS

78. The destination of school leavers varies across each of the constituent LGDs of BCR. For example, the proportion of school leavers entering HE in Lisburn and Castlereagh is almost half (49%) whereas in Ards and North Down the figure is 40%. Similarly, the proportion of school leavers entering employment is 14% in BCC yet the same figure is 8% in Lisburn and Castlereagh.

Figure 5.21: Destination of school leavers (% of total), LGDs (2015)

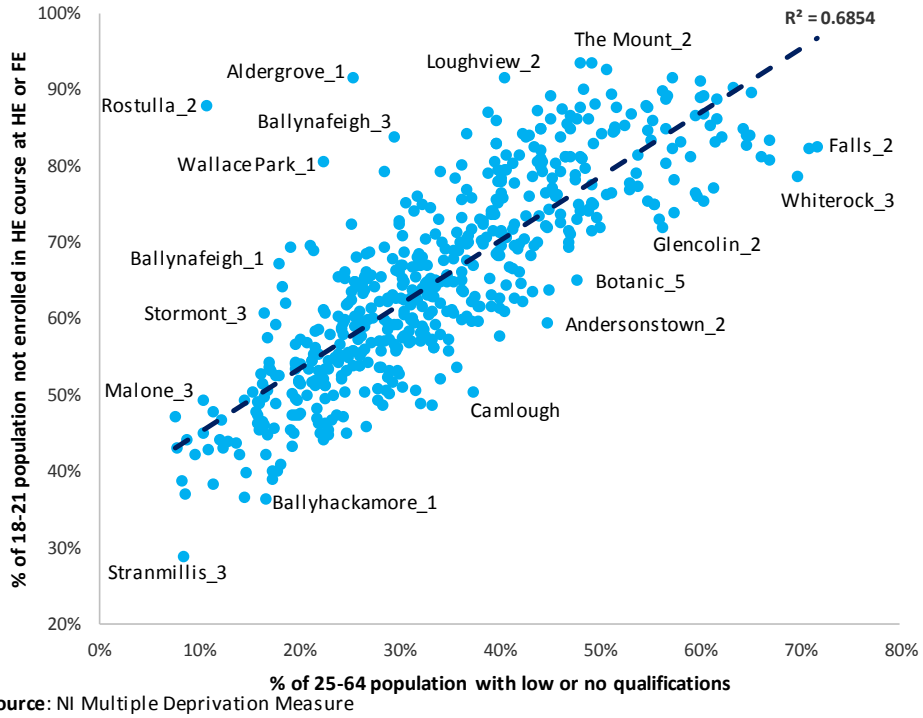


Source: NINIS

Higher education participation

79. There is a positive association between the proportion of 18-21 year olds not enrolled in a HE course against the proportion of 25-64 year olds with low or no qualifications within SOAs within BCR. **It is striking that low participation in HE courses occurs in communities that are characterised by low level skills**.

Figure 5.22: Proportion aged 18-21 not enrolled in HE courses at HE or FE (2015/16) vs % aged 25-64 with low or no qualifications (2011), BCR, SOA



Source: NI Multiple Deprivation Measure

Note: *SOAs where no data is avilable have been excluded*

80. The previous figures suggests that **young people's education aspiration is lower in areas of low adult skills.** While parental education, knowledge and skills clearly influence a child's development and education achievement, parental aspirations and parental expectations are also important. Unfortunately aspiration is highly correlated with income levels. This is confirmed by research from the MCS which finds that 80% of the richest fifth of mothers expect their child to go to university. For the poorest mothers this falls to 40%. Both are high levels of aspiration, but there is a significant gap between rich and poor[45].

81. The participation rate in HE across BCR is summarised in the table overleaf. **Amongst people under 21, BCR has a slightly lower level of participation in HE (34%) relative to the NI average (37%).** However, within BCR participation is varied across LGDs. For example, in BCC 17% of the 18-24 population participate in HE compared to 33% in Lisburn and Castlereagh.

[45] Goodman, A., Gregg, P. and Washbrook, L. (2011) Childrens education attainment and th aspirations, attitudes and behaviours of parents and children throughout childhood in the UK. *Longitudinal and life course studies* 2(1): 1-18

Table 5.10: Participation rate in HE by age (enrolments by age as a % of respective population), LGDs (2015)

HE enrolments as a % of total population	Aged 18 - 20	Aged 21 - 24	Aged 25 - 59	Aged 60+
Antrim and Newtownabbey	34%	19%	2%	0%
Ards and North Down	42%	21%	2%	1%
Armagh City, Banbridge and Craigavon	41%	19%	2%	0%
Belfast	23%	13%	3%	1%
Causeway Coast and Glens	38%	20%	2%	0%
Derry City and Strabane	40%	22%	2%	0%
Fermanagh and Omagh	47%	25%	1%	0%
Lisburn and Castlereagh	46%	24%	2%	1%
Mid and East Antrim	40%	20%	2%	0%
Mid Ulster	43%	19%	1%	0%
Newry, Mourne and Down	44%	23%	2%	0%
Belfast City Region	34%	18%	2%	1%
Northern Ireland	37%	19%	2%	0%

Source: NINIS

82. The distribution of HE participation by part-time enrolment and postgraduate enrolment highlights just under one third (30%) of HE enrolments are on a part-time basis. This compares to 27% for NI as a whole. Almost one fifth (18%) of total HE enrolments are postgraduate level. This varies amongst LGDs within BCR from a high of 36% in BCC to a low of 23% in Newry, Mourne and Down.

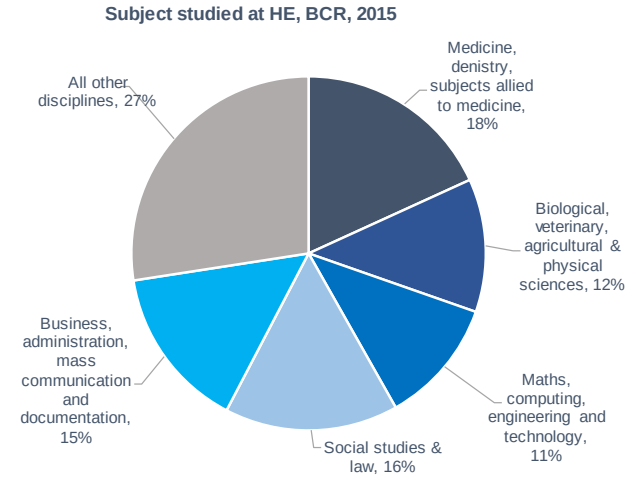
Table 5.11: Part-time and postgraduate enrolments, LGDs (2015)

Local Government District	Enrolments at HE institutions	% NI part-time enrolments	% NI postgraduate enrolments
Antrim and Newtownabbey	4,510	29%	16%
Ards and North Down	5,280	30%	15%
Armagh City, Banbridge and Craigavon	6,630	23%	14%
Belfast	11,375	36%	18%
Causeway Coast and Glens	4,805	22%	13%
Derry City and Strabane	5,800	22%	13%
Fermanagh and Omagh	4,060	20%	13%
Lisburn and Castlereagh	5,445	29%	16%
Mid and East Antrim	4,350	26%	14%
Newry, Mourne and Down	6,455	23%	13%
Belfast City Region	**37,415**	**30%**	**16%**
Northern Ireland	63,600	27%	15%

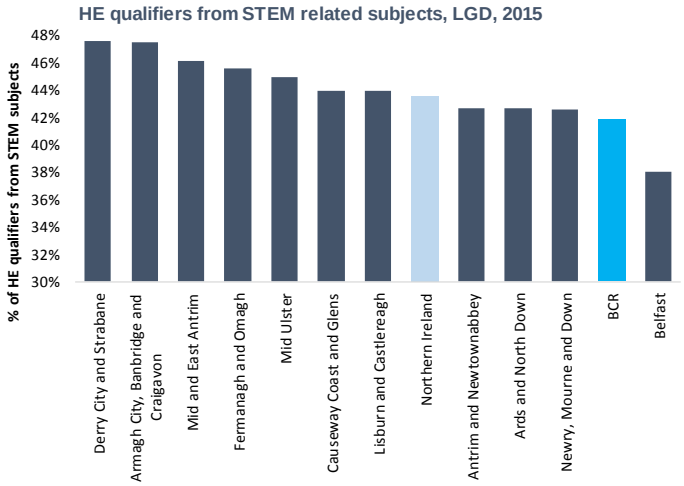
Source: NINIS

83. A relatively low proportion of qualifiers from HE are studying degrees in high demand subject areas such as sciences (30%) and maths, computing, engineering and technology (11%). BCR has a slightly lower proportion of graduates coming from both of these subject areas relative to the NI average. In total, 42%, of graduates are in STEM related subject categories, compared to 44% in NI average. Within LGDs which comprise BCR Mid and East Antrim hosts the highest proportion of qualifiers with STEM related subjects (46%) whilst BCC accounts for the lowest (38%).

Figure 5.23: HE qualifications by subject for BCR qualifiers and comparison of STEM across LGDs (2015)[46]



Source: NINIS



Source: NINIS

84. In considering the subject profile of the NQF level 6+ net requirement there are some imbalances. The largest gaps exist in maths, computing, engineering and technology (12 percentage points). **This suggests that some of the current subject mix is not in alignment with the subject demand for high level skills under a high growth scenario.**

Table 5.12: Current qualifiers vs future net requirement for NQF level 6+ by subject, BCR (2015, 2017-2027)

Subjects	% distribution of BCR qualifiers (2015)	% distribution of net requirement (2017 - 2027)	p.p. difference
Medicine, denistry, subjects allied to medicine	17%	15%	1%
Biological, veterinary, agricultural & physical sciences	11%	12%	-1%
Maths, computing, engineering and technology	10%	23%	-12%
Social studies & law	19%	11%	8%
Business, administration, mass communication and documentation	15%	16%	-1%
All other disciplines	28%	23%	5%

Source: NINIS & UUEPC

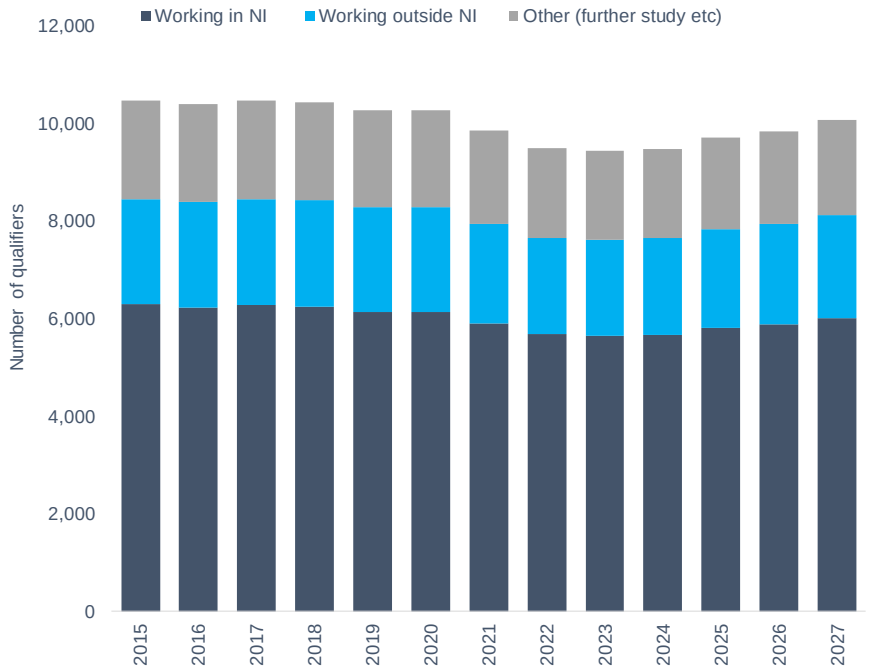
85. At LGD level the subject groupings are too broad to draw firm conclusions. However there does appear to be an abundance of generalist degrees in the 'social studies and law' and 'other' subject categories in comparison to a relative shortage of key STEM related subjects.

86. One other aspect to consider when interpreting the number of BCR residents qualifying from HE courses is the 'brain drain'. The qualifiers data above includes BCR residents studying at both NI HE institutions and HE institutions in other parts of the UK. At a NI level approximately 65% of NI domiciled qualifiers who graduate from HE institutions in other parts of the UK have not returned home six months after graduating. On the other hand, of the NI domiciled HE qualifiers who graduate from NI HE institutions, only 11% record destinations outside NI 6 months after graduating.

[46] A full list of subject profiles for LGDs within BCR is provided in Annex L1.

Assuming the same proportions apply to BCR residents, this would imply a loss of 2,280 highly skilled BCR residents in 2015/16.

Figure 5.24: Location of HE qualifiers in employment 6 months after graduating, BCR, 2015-2027



Source: DfE HE leavers survey, NINIS & UUEPC

87. Looking forward, over the coming decade approximately 8,030 BCR residents per annum are forecast to qualify from a HE course (assuming current rates of participation) and enter employment. However, 26% of BCR qualifiers in employment will work outside the NI labour market. Therefore, **over the coming decade BCR will lose 2,080 highly skilled residents per annum.**

Further education participation

88. The total number of regulated enrolments in FE colleges in BCR was 69,290, 54% of NI enrolments[47] in 2016. The participation rate in FE for those aged 16-19 and 20-24 in BCR is slightly below the NI average.

[47] The number of enrolments is higher than the number of individuals enrolled. In NI FE there are approximately 1.9 enrolments on regulated courses per individual.

Table 5.13: Participation rate in Further Education by age (enrolments by age as a % of respective population), LGDs (2016)

FE enrolments as a % of total population	Aged 16 - 19	Aged 20 - 24	Aged 25 - 59	Aged 60+
Antrim and Newtownabbey	76.2%	11.4%	2.6%	0.2%
Ards and North Down	118.3%	15.5%	2.8%	0.7%
Armagh City, Banbridge and Craigavon	111.2%	15.2%	3.6%	0.4%
Belfast	45.3%	9.4%	3.7%	0.5%
Causeway Coast and Glens	69.6%	11.8%	4.3%	0.4%
Derry City and Strabane	58.8%	14.0%	4.5%	0.6%
Fermanagh and Omagh	89.7%	19.0%	3.9%	0.5%
Lisburn and Castlereagh	88.1%	15.9%	3.4%	0.4%
Mid and East Antrim	68.2%	10.8%	2.9%	0.3%
Mid Ulster	97.8%	15.2%	3.6%	0.2%
Newry, Mourne and Down	98.9%	17.9%	4.0%	0.5%
Belfast City Region	**75.9%**	**12.4%**	**3.3%**	**0.5%**
Northern Ireland	**81.6%**	**13.9%**	**3.7%**	**0.5%**

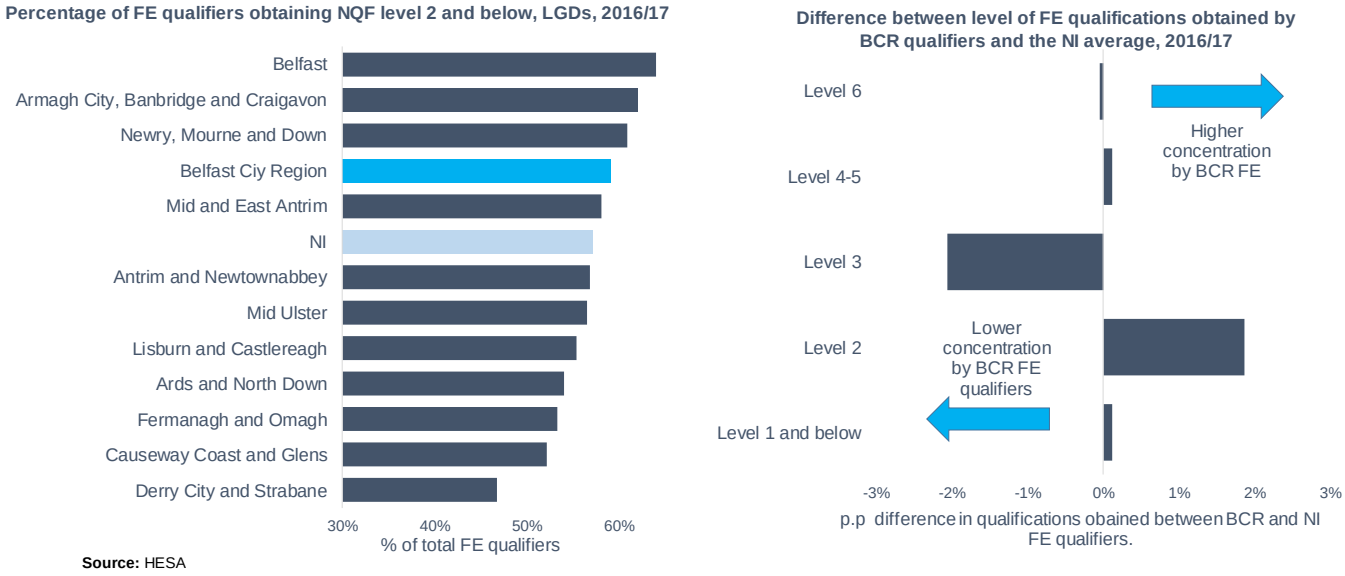
Source: NINIS

Note: Figures refer to total FE enrolments rather than individuals enrolled at FE. As such, one individual may have multiple enrolments leading to percentages in the above table of greater than 100.

89. **BCR residents have a slightly lower FE participation rate relative to the NI average is a consequence of the significantly lower participation rate in BCC and Mid and East Antrim.** The remaining council areas within BCR have FE participation rates clustered above the NI average. School leavers who have not achieved A-levels are most likely to be enrolled in courses in FE colleges six months after graduating. This translates to 69% of school leavers at lower-secondary level (i.e. NQF level 2) proceeding to study in FE colleges and a further 16% moving into training. Equivalent data for LGDs is unavailable, although it is likely that this proportion would be higher than the NI average for those LGDs with lower levels of academic achievement in school (e.g. BCC).

90. **The majority of individuals qualifying from FE colleges tend to qualify from relatively low NQF level courses.** In 2016/2017 25,100 BCR residents qualified from FE colleges. Of those qualifiers 59% qualified from courses equal to NQF level 2 and below and 30% from courses equal to NQF level 3.

Figure 5.25: Level of NQF qualifications achieved, FE leavers, 2016/17[48]



Source: HESA

91. The relatively high level of qualifiers at NQF level 2 and below is concerning from two perspectives.

    - **Longer term cost of school underachievement.** In BCR, 81% of school leavers have achieved NQF level 2 qualifications. However, only 68% of BCR school leavers achieve NQF level 2 including English and maths. This contributes to the relatively high number of enrolments in FE colleges in low level courses that often do not involve the participant increasing their level of qualification and moving up the NQF scale. There is a significant fiscal cost associated with delivering low NQF level courses, and must be considered within the context of the long term cost of under achievement in schools.

    - **Limited high level vocational and technical education.** Only 11% of individuals gaining qualifications in FE colleges are achieving a qualification at NQF level 4 or higher. However, this proportion is depressed by the sheer number of people undertaking low level qualifications in FE colleges. The overall number of people in BCR qualifying from NQF level 4+ courses in FE was 2,700 in 2016/17.

92. **Vocational and technical education is important from an economic perspective**. Skills demand amongst NI employers is edging higher. If the education system is to meet this demand it is imperative that a greater proportion of the workforce has higher level skills. Some of this demand will be fulfilled by graduates. However, less than half of school leavers (43%) pursue the university route[49]. Education and skills policy should to be equally concerned about the half of school leavers who do not go on to HE.

93. On the low skills side, **the evidence on improving basic skills such as literacy and numeracy is compelling.** Indeed, a recent report by the OECD concluded that

[48] A full breakdown of FE qualifications relative to NI for LGDs within BCR is provided in Annex L2.

[49] Although some school leavers do attend university when they are older.

the economic gains that would accrue solely from eliminating extreme underperformance in high income OECD countries by 2030 would be sufficient to pay for the primary and secondary education of all students[50].

94. The relatively small number of people qualifying from NQF level 4+ courses in FE compared to HE highlights the perceived difference in status between FE and HE. Some vocational qualifications, particularly those at higher (NQF level 3) and those that are familiar to employers (e.g. HND) are highly valued by the labour market. By contrast, the economic value of some lower level qualifications such as NVQ2's is mixed and often considered to be low.

95. **Parents and children often value HE and FE differently.** Part of the reason is that sectors which have traditionally employed a high number of people with vocational qualifications now employ less people. For example, manufacturing accounted for 27% of NI employee jobs in 1978 compared to 11% today. Another reason is that the sheer number of qualifications offered by FE colleges – all with different requirements – tends to confuse parents and students alike[51]. Finally, the careers information provided at school may be skewed towards a university education and not adequately communicate the economic returns to higher level professional and technical courses at FE. In other words, FE may not be presented as a viable alternative to children when at school[52].

96. This implies two things. Firstly, **labour market information is required to adequately measure the potential returns to qualifications in FE colleges.** New research methods have been employed in other parts of the UK to estimate the returns to FE using data linking methods and administrative datasets[53]. There is little reason why similar research could not be undertaken in NI[54]. Secondly, this information be communicated to young people to inform them of the value of different professional and technical options. **Ensuring that young people are aware that there are alternative options to university to gain a quality education can only be regarded as positive.**

97. Although no data exists in relation to the destination of leavers from FE colleges in NI at LGD level, it is possible to estimate the destination of leavers by assuming the NI data holds constant across NI sub regions.

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[50] OECD (2015) Universal basic skills: what countries stand to gain.

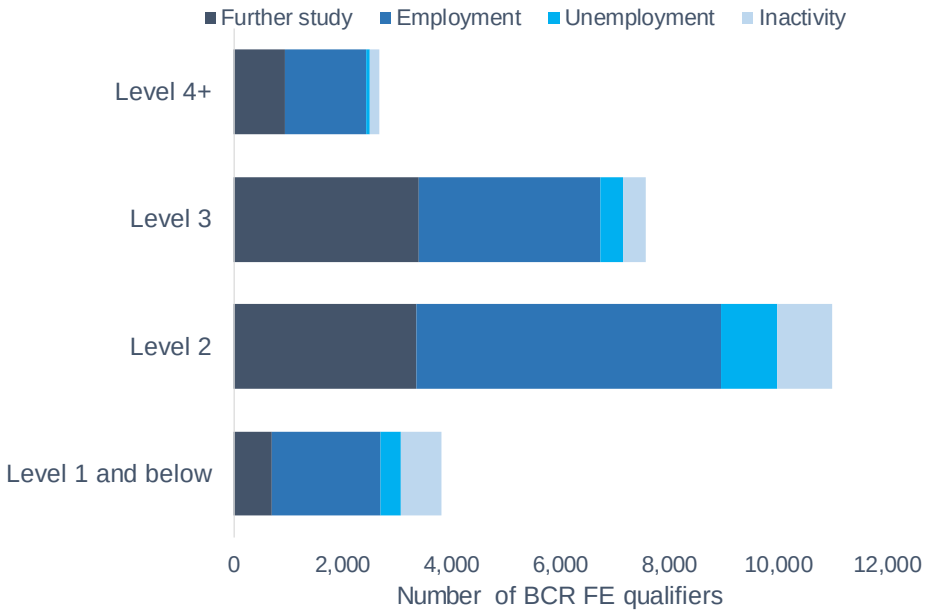
[51] Institute for Government (2017) All Change Why Britain is so prone to policy reinvention, and what can be done about it.

[52] OFSTED (2016) Getting ready for work

[53] Cambridge Econometrics and Warwick Institute for Employment Research (2015) Measuring the net present value of further education in England.

[54] This type of research would require the passing of the Digital Economy Act to provide a legal gateway to enable data linking. Other parts of the UK have this in place. However, in NI the act was not passed prior to the collapse of the NI Assembly.

Figure 5.26: Destination of FE qualifiers by level of NQF achieved, BCR (2016/17)



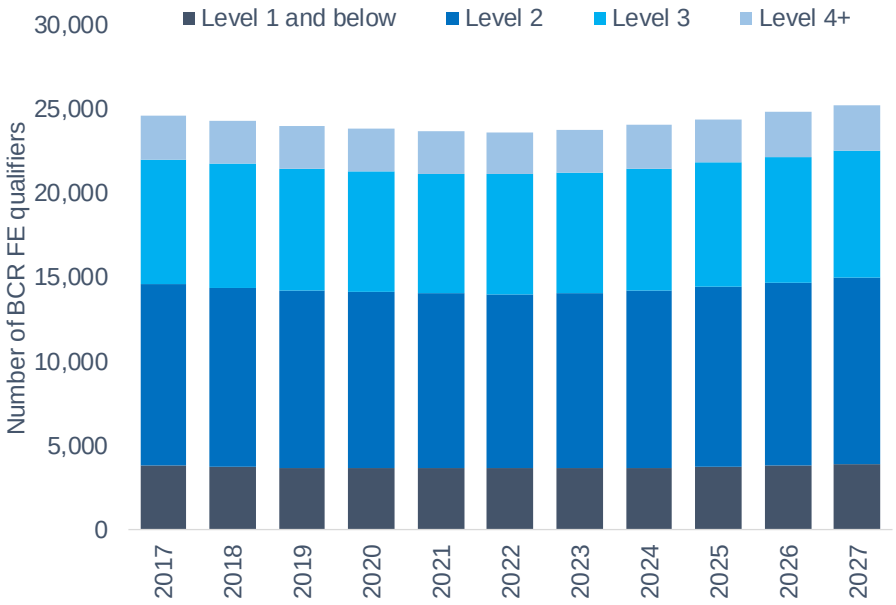
Source: FE Leavers survey & UUEPC

98. **It is estimated that over one third (34%) of FE qualifiers in BCR proceed to further study after achieving their qualification.** The rate of progression onto other education courses is high across NQF level 1-5. However, people achieving NQF level 4-5 are likely to proceed to HE. At below NQF level 3 (exclusive) progression up the NQF scale is more ambiguous. Although a large proportion of qualifiers at this level proceed to further study (27%), **it is not clear from the data whether this represents upward progression to higher level courses or is a recycling of learners between courses at the same NQF level.**

99. To effectively assess whether learners are progressing to higher levels of qualification, and whether there is an element of learner recycling further research is required. To accurately assess this **it is important that longitudinal systems of data collection are improved to effectively track individuals through their education journey.**

100. Looking forward, based on current levels of participation and enrolment patterns, it is estimated that there will be an average of 24,200 per annum (2017-2027) individuals living in BCR qualifying from FE over the next 10 years.

Figure 5.27: FE qualifiers by level of qualification achieved, BCR (2017-2027)



Source: NISRA, FE Leavers Survey & UUEPC

101. On average, over the coming decade 14,330 BCR residents per annum will gain a qualification below NQF level 2 at FE, 7,320 will qualify from a NQF level 3 course; and 2,580 will achieve a qualification NQF level 4 or above.

Adult learning and training programmes

102. In 2016 there were 19,180 essential skills enrolments amongst BCR residents. These are courses designed to improve peoples' reading, writing, maths or ICT skills. In other words to ensure people are equipped with basic skills. The majority of participants are aged under 25 (85%) and not in employment (80%).

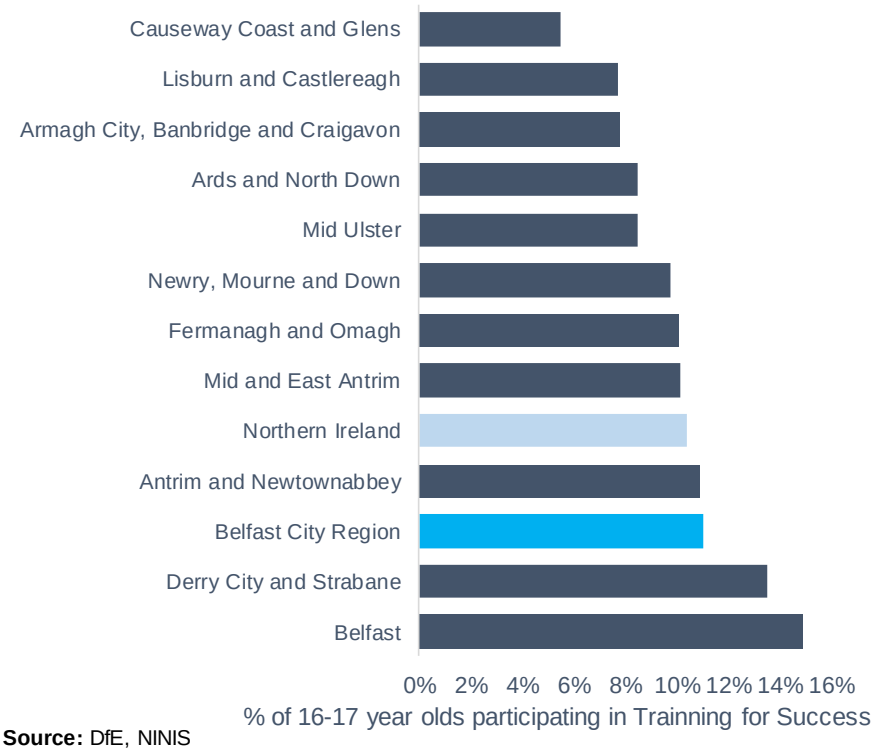
Table 5.14: Essential skills enrolments (% of 15-24 year old population), LGDs (2016)

Local Government District	Number of enrolments	Enrolments as % of 15-24 population
Northern Ireland	**35,780**	**15%**
Antrim and Newtownabbey	2,590	15%
Ards and North Down	2,460	14%
Armagh City, Banbridge and Craigavon	3,550	14%
Belfast	6,180	12%
Causeway Coast and Glens	3,050	16%
Derry City and Strabane	3,640	18%
Fermanagh and Omagh	2,390	17%
Lisburn and Castlereagh	2,180	13%
Mid and East Antrim	2,780	17%
Mid Ulster	3,250	18%
Newry, Mourne and Down	2,990	13%
Belfast City Region	**19,180**	**14%**

Source: DfE, NINIS

103. Another programme which low achievers join after leaving school is TfS. The programme guarantees up to 104 weeks of training to people aged 16-17. Although it is possible to achieve NQF level 3 qualification, almost all participants are working towards either an NQF level 1 or NQF level 2 qualification. In BCR there are currently 2,990 people participating on the programme.

Figure 5.28: Training for Success participation (% of 16-17 year old population), LGDs (2016)



Source: DfE, NINIS

104. The participation rate on the programme in BCR is slightly above the NI average (11% versus 10% respectively). This is largely influenced by the high participation rate within BCC (15%) as the majority of the remaining LGDs which comprise BCR are clustered below the NI average. The number of TfS participants in 2016 is equal to just under one third (32%) of the entire cohort of school leavers in 2015. **These proportions are and indicative of the ongoing cost of failing to tackle underachievement at a much earlier stage in the school system.**

105. The other major government training programme is Steps to Success. In BCR there are 6,390 enrolments in the programme. This translates to 9.2 enrolments per 1000 individuals aged 16-64, compared to the NI average of 10. Participation in this programme is compulsory for out of work adults in receipt of unemployment benefit (for job seekers aged 18-24 after nine months and after twelve months for people aged over 25). Therefore, enrolment numbers are inextricably linked to the employability of local residents and is higher in areas where there are higher levels of unemployment.

Table 5.15: Steps to success participation (per 1000 16-64 population), LGDs (2016)

Local Government District	Total enrolments	Enrolments (per 1000 16-64 population)
Derry City and Strabane	2103	21.9
Belfast	2826	12.7
Causeway Coast and Glens	1052	11.7
Belfast City Region	**6390**	**9.2**
Fermanagh and Omagh	658	9.1
Ards and North Down	862	8.9
Newry, Mourne and Down	961	8.7
Armagh City, Banbridge and Craigavon	1020	7.7
Mid and East Antrim	657	7.6
Antrim and Newtownabbey	558	6.3
Mid Ulster	575	6.3
Lisburn and Castlereagh	526	5.9

Source: NINIS

106. Those on Government Training Schemes (GTS) are out of work but are not classified as unemployed. As such, the data provides an indication for hidden unemployment and is important to consider in the context of better understanding the performance of the local labour market.

Key points and policy remarks

Key points

107. There are a number of key points which have been highlighted in this chapter:

- The widening of access of HE has contributed to an increase in the proportion of BCR workers with a degree level qualification.
- There are considerable differences between the skills profile of employed and non-employed residents in BCR.
- The impact of family background and parents is critical in child development. Parents matter not just for the resources they provide a child but for their own education achievement, attitudes towards education, aspirations and methods of parenting. The home learning environment provided by parents, particularly in the early years, is arguably a more important determinant of academic achievement than initiatives undertaken within schools.
- Empirical literature highlights a range of factors that negatively influence children's academic performance such as income, level of education of parents, household employment status, poverty and household structure. A review of data has highlighted that BCR performs close to the NI average across a range of socioeconomic indicators which are known to be predictors of low achievement. However, excluding BCC from a number of indicators highlighted the remaining region performing above the NI average.
- The proportion of low achievers at GCSE level in BCR is similar to the NI average. However, the rate varies across LGDs which comprise BCR where under achievement is spatially concentrated in high deprivation areas within BCR.

- Excluding BCC from BCR there is a high rate of school leavers who achieve an NQF level 2 qualification (i.e. 5 GCSE's A*-C) including a A*-C grade in English and maths. However, the rate drops significantly when BCC is included within the analysis.
- Although there has been an improvement in the performance of pupils entitled to FSM's, the gap between FSME and non-FSME pupils has remains relatively unchanged.
- HE participation varies amongst LGDs which comprise BCR. More specifically, participation appears to be very low in communities typified by low levels of qualification amongst the adult population highlighting intergenerational problems.
- A relatively low proportion of students study STEM related subjects when compared against the subject distribution of the NQF level 6+ net requirement.
- Very few FE qualifiers achieve a qualification level above NQF level 3.
- Training for Success participation in BCR varies throughout the region. BCC has the highest participation rate which is a direct consequence of having a relatively high number of low achievers at GCSE level. However, BCR also hosts Lisburn and Castlereagh which has the second lowest participation rate.

Policy remarks

108. The above data has a number of implications for policy:

- To overcome social disadvantage there is a need to intervene with high quality and intensive early education programmes. Young children at risk of low education achievement who have not yet begun formal schooling should not be beyond the reach of public policy.
- Investment in children must be sustained throughout schooling if they are to be effective in the long-run.
- Early intervention programmes are likely to be high cost, and therefore need to be targeted at disadvantaged pupils. Particularly if such investments are to be sustained throughout a child's schooling. The policy challenge is to help these vulnerable families build up more supportive environments despite the many social and economic difficulties they face.
- While schools can help under-achieving pupils, many of the factors that determine academic achievement are outside the control of the school itself and require a more open debate about the role of schools and the responsibilities of parents.
- A relatively high proportion of graduates are in narrow unspecialised subjects, and STEM shortages are evident. Improving labour market intelligence in this area by using data from tax records will provide an invaluable source of data to help deliver world class careers advice.
- Better systems of data collection could provide insight into a number of areas including graduate underemployment; earnings data related to different courses; and returns to FE qualifications. Other countries use this form of data in a number of ways ranging from curriculum design to funding decisions.

6. Can Belfast City Region residents' service tomorrow's skill needs?

Total skills supply

1. In total 46,660 BCR residents per annum are forecast to gain qualifications over the coming decade. However, only 24,750 are projected to enter the labour market (i.e. become economically active (either employed or unemployed and actively seeking employment). The majority of the remainder of people gaining qualifications proceed to further study.

Table 6.1: Average annual labour market supply by skill level, BCR (2017-2027)[55]

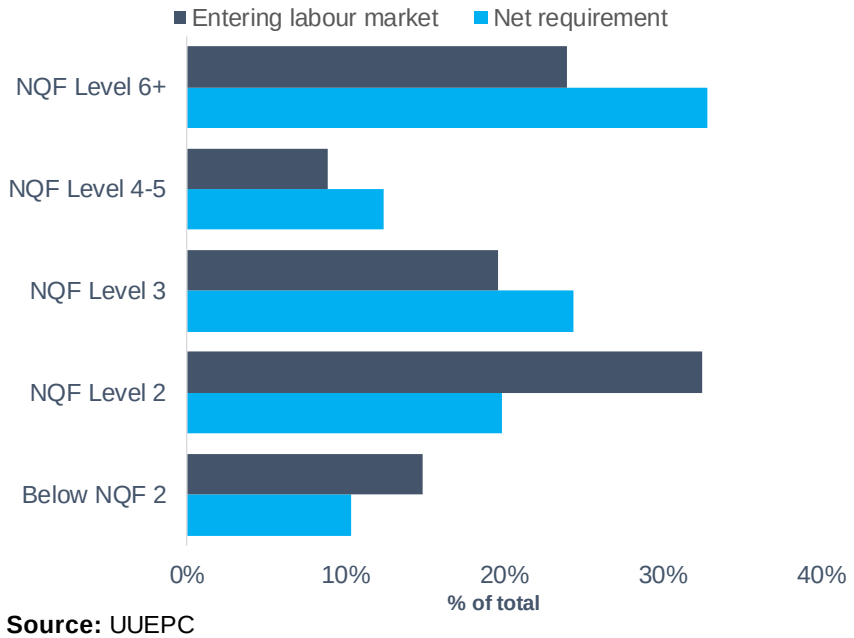
	School leavers		FE leavers		HE leavers		Total	
	Total leavers	Entering labour market	Total leavers	Entering labour market	Total leavers	Entering labour market	Total leavers	Entering labour market
Below NQF level 2	2,300	1,020	3,690	2,290	*	*	5,990	3,310
NQF level 2	2,860	820	10,640	6,410	*	*	13,500	7,230
NQF level 3	7,310	750	7,320	3,620	*	*	14,630	4,370
NQF level 4 - 5	*	*	2,460	1,360	830	650	3,290	2,010
NQF level 6	*	*	110	80	6,640	5,450	6,750	5,520
NQF level 7 - 8	*	*	*	*	2,480	2,300	2,490	2,310

Source: UUEPC

Note: ** refers to not applicable*

2. Benchmarking the skills profile of people leaving the labour market each year against the net requirement highlights some important issues. Firstly, **the number of graduates entering the labour market is below the net requirement.** It is important to note that the figure below only depicts the distribution of qualifiers against the distribution of the net requirement. It is not possible to compare the demand and supply of people from BCR in absolute terms. The estimated number of BCR residents entering the labour market does not include the commuter impact.

Figure 6.1: Net requirement vs skills profile of labour market entrants, BCR (2017-2027)



Source: UUEPC

[55] Data includes BCR residents qualifying from non-NI HEI's.

3. Areas of misalignment are an **oversupply of low-level skills at NQF level 2 and below and a shortage of mid-level skills at NQF level 3-5.** This is largely a supply driven issue with so few people studying qualifications at these levels who enter the labour market. The majority of people who gain qualifications at these levels proceed to further study. This results in a deficit of people with mid-level skills participating in the labour market.

Local level skills balance

4. **The skills supply in BCR varies significantly across different areas.** For example, in Court (BCC) 46% of school leavers have achieved 5+ GCSE's A*-C including English and maths compared to 88% in Downshire West (Lisburn and Castlereagh). Similarly, in Court 16% of 16-64 population have achieved a tertiary level qualification (NQF level 4+) whereas in Castlereagh South the same figure is 46%[56].

5. It is evident that areas where qualification levels of education leavers (skills flow) are relatively lower than the NI average are the same areas where the qualification level of the population (skills stock) is also below the NI average. In addition, the same areas tend to perform poorly on other social and economic indicators.

6. The table overleaf presents a summary of the top and bottom performing DEAs within BCR across a range of skills, economic and social indicators. It should be noted that the selection of top and bottom performing regions are merely indicative as there is no formal analysis in ranking sub-regions.

[56] A full list of the electoral wards which comprise each District Electoral Area (DEA) is included in Annex M

Table 6.2: Summary of top 10 and bottom 10 DEAs within BCR (1= top performing in NI, 80= bottom performing in NI)

		Court	Offpark	Black Mountain	Titanic	Colin	Killultagh	Castlereagh South	Downshire West	Downshire East	Holywood and Clandeboye
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	80	79	76	77	70	8	6	1	2	3
	% of school enrolments entitled to FSM	80	79	77	76	74	5	3	1	4	2
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	76	74	75	68	70	8	12	3	4	*
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	80	74	66	78	35	45	41	28	40	34
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	78	68	69	76	44	62	67	18	39	22
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	79	77	76	78	62	27	1	3	2	9
	% of HE qualifiers achieving a postgraduate qualification (L7-8)	69	66	78	7	39	9	4	15	16	9
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	80	65	68	18	71	42	40	9	32	79
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	80	79	76	67	59	10	1	9	6	4
	% of 16-64 population with high qualifications (NQF level 4+)	80	79	78	25	69	10	1	6	8	4
	% of 16-34 population with low qualifications (below NQF level 2)	80	78	75	64	61	4	2	11	7	29
	% of 16-34 population with high qualifications (NQF level 4+)	80	79	76	7	69	9	3	5	13	10
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	78	79	77	71	75	2	1	3	4	5
	Social security clients (client group analysis) as a % of the population (16-34)	79	80	73	74	75	9	1	4	2	6
	Housing benefit claimants as a % of the population (16-64)	78	79	75	76	73	1	2	3	6	7
	Housing benefit claimants as a % of the population (16-34)	79	80	64	76	71	3	1	13	5	9
	% of households with no adults in employment	79	78	77	67	63	1	4	11	12	40
	% of households with no adults in employment with dependent children	76	77	75	65	78	6	1	2	7	3
	% of households with lone parents with dependent children	76	78	77	72	80	16	6	2	3	4
	% of people employed who are either managers/senior officials or professionals	78	79	80	75	73	5	11	3	2	1
	Employment rate (%, 16-74 population)	79	78	77	55	71	1	3	7	12	26
	Unemployed who have never worked (% of unemployed)	77	76	79	69	75	18	4	3	8	14

Source: NISRA, DfE, DE, 2011 Census, DfC, UUEPC

Ranked in the top 10 performing DEA's in NI

Ranked in the bottom 10 performing DEA's in NI

7. There are clear divides across the region, with some DEA's within BCR consistently ranking amongst the poorest performing areas in NI and other amongst the top performing. The key concern is that DEAs **that have performed poorly with regard to the skills stock also perform poorly on metrics related to the flow of skills**. By implication, these areas will continue to fall behind better performing DEAs in the absence of policy intervention subsequently widening the performance gap between areas throughout BCR.

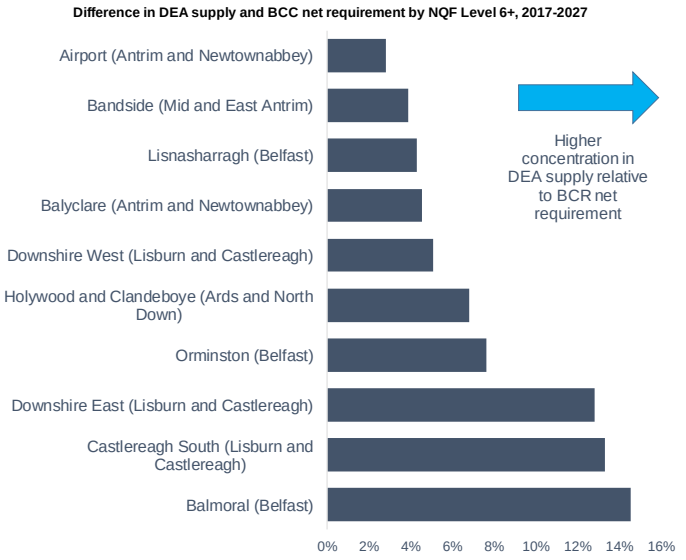
Aligning the demand and supply of skills at local level

8. The vast differences in the skill profile of the supply side of the economy across areas within BCR lead to differing skills balances when compared to BCR net requirement. The figures overleaf highlight the top and bottom largest percentage point differences between the proportion of NQF level 6+ qualifiers within the supply of people entering the labour market and the proportion of NQF level 6+ people demanded, as part of BCR net requirement over 2017-27.

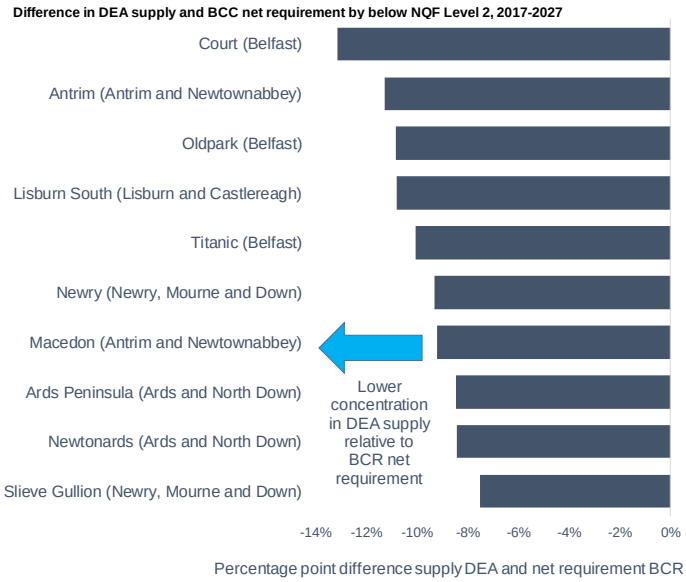
9. The largest gap is recorded in Balmoral (BCC) where the supply of NQF level 6+ qualifiers is 15 percentage points above the net requirement. This compares to Court (BCC), where the supply of high-level qualifications is 13 percentage points below its

share of the net requirement. The large gaps are indicative of the differences in HE participation across areas within BCR as discussed in the previous chapter (and illustrated using GIS in Annex D3).

Figure 6.2: Percentage point difference in demand and supply of NQF level 6+ (highest and lowest differences), BCR DEAs (2017-2027)



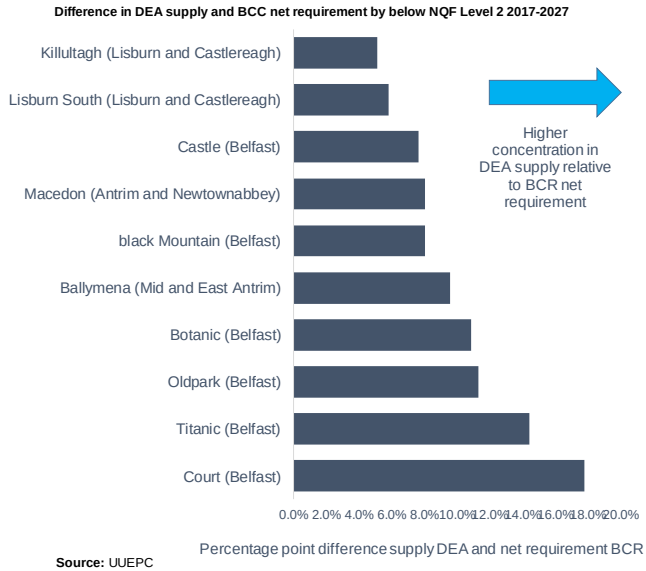
Source: UUEPC



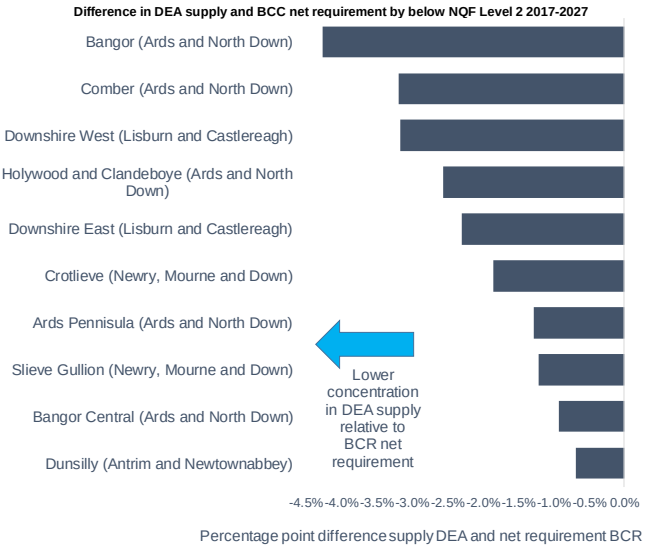
Source: UUEPC

10. In a number of areas there is an oversupply of people with low-level qualifications (below NQF level 2) entering the labour market compared to BCR net requirement. The top three are within BCC: Court (18 percentage point difference); Titanic (14 percentage point difference); and Oldpark (11 percentage point difference).

Figure 6.3: Percentage point difference in demand and supply of NQF level 2 (highest and lowest differences), BCR DEAs (2017-2027)



Source: UUEPC

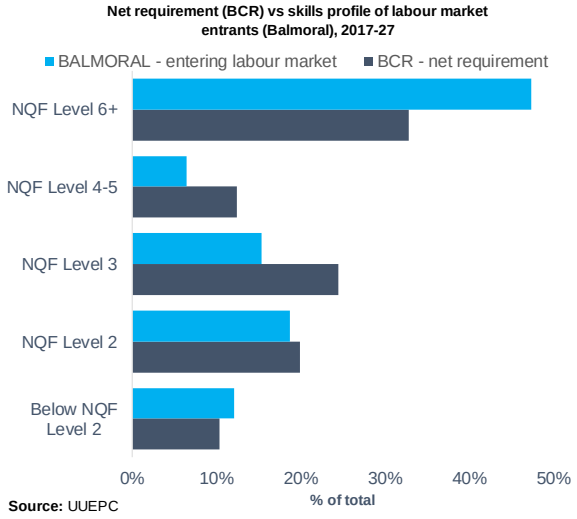


Source: UUEPC

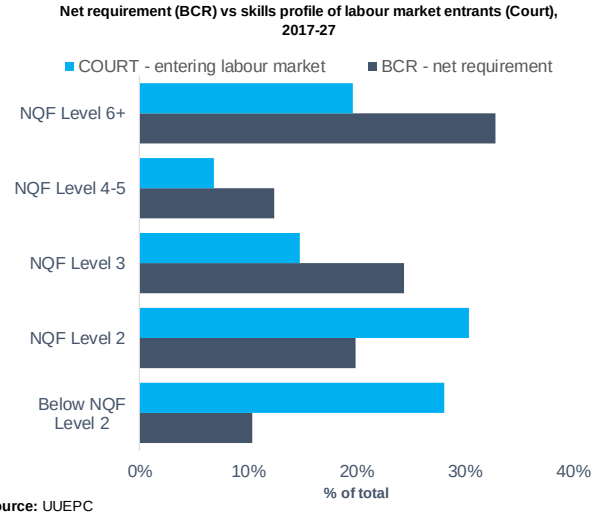
11. Contrastingly, there are a number of areas where very few people enter the labour market with low-level skills. The best performing areas within BCR which limit the supply of low skills are: Bangor East; Comber; and Downshire West.

12. There are significant differences in the supply of high-level skills across areas within BCR. For example, in Court only 20% of the qualifiers entering the labour market are qualified to NQF level 6+ compared to 47% in Balmoral.

Figure 6.4: Net requirement vs skills profile of labour market entrants, Court and Balmoral (2017-2027)[57]



Source: UUEPC



Source: UUEPC

13. There is a **diverse range of labour markets operating within BCR that specialise in producing qualifiers at differing ends of the skills spectrum**. Therefore, sections within BCR face a disparate set of labour market challenges and produce qualifiers associated with very different types of jobs. The high proportion of low level qualifiers in Court are dependent upon non-graduate jobs that are easily accessible given labour mobility problems amongst low skill and low wage jobs.

14. Where there is misalignment with the net requirement firms have the option to import the skills required. Historically firms have tended to import higher numbers of people to fill vacancies requiring lower levels of qualifications. If the level of in-migration were to decrease in the future it would become imperative to re-active dormant labour which is currently economically inactive to fill these positions.

15. This analysis is completed using DEA's as sub-regional analysis at more disaggregated geographies is not possible. Although school and HE data is available at ward level, it is not possible to get FE data on a 'number of individuals' basis. It is likely if this analysis had been undertaken at ward level the divergent nature of local areas within BCR labour market would be more pronounced.

Key points and policy remarks

Key points

16. There are a number of key points which have been highlighted in this chapter:

- The number of graduates entering the labour market is below the forecast net requirement for high skills over the next decade.

[57] The demand and supply balances for all DEA's within BCR are included in scorecards in Annex M1-M6 of this report

- There are a shortage of people entering the labour market with mid-level skills (NQF level 3-5).
- There is an oversupply of people with low level skills, with relatively few job opportunities projected for education leavers below NQF level 2.
- There is a huge difference in the skills profile across different LGDs which complete BCR. Areas that have performed poorly with regard to the skills stock are also performing poorly on metrics related to the flow of skills.

Policy remarks

17. The above data has a number of implications for policy:

- There are some areas within BCR where there is a large misalignment between the demand and supply of skills. From an economic policy perspective this suggests two possible approaches. Firstly, to ensure that there is a mix of opportunities created across the economy at all skill levels to enable everyone to benefit from growth. Secondly, to upskill large numbers of the population to meet the demand for higher-level skills.
- It is disappointing that many of the lowest performing areas within BCR across a range of skills measures are the same areas which have scored poorly on socioeconomic indicators for more than a generation. Low levels of school performance indicate that these areas are falling further behind and need to take priority in any inclusive growth agenda. However, it is important that the effect of previous initiatives be considered. These areas have been the attention of policy focus in the past, yet there appears to have been little relative improvement.
- The factors affecting education performance span a wide range of policy areas. Therefore, a multi-agency locally focussed response is required. With limited examples of best practice in transforming 'left behind' places there is scope to test pilot initiatives.

7. Summary and policy remarks

1. This report has provided a review of recent skills trends in BCR and developed an economic model to forecast the demand for skills under a high growth scenario. The high growth scenario is consistent with the general economic ambitions of LGDs which comprise BCR.

2. The review and modelling highlights misalignments within the region.

   - **BCR workplace:** BCR is highly dependent upon BCC generating job opportunities that are associated with high productivity and high skilled individuals. The job opportunities in the remaining LGDs which comprise BCR tend to be more concentrated within sectors such as retail and manufacturing.

   - **BCR residents:** The skill profile of BCR residents is less concentrated in qualifications at the higher end of the skills spectrum and more concentrated within mid to low level skills, relative to BCR workplace skill structure. This is largely influenced by the high weighting of jobs in BCC associated with high skills.

   - **Sub-regional disparities in BCR**: The performance of education leavers within BCR tends to be broadly similar to the NI average, however the performance across the LGDs within BCR varies significantly. In particular, when BCC performance is excluded BCR tends to outperform the NI average.

3. BCR's dependency on BCC to provide high skill and high productivity jobs influences a culture of commuting to a congested city. To fully embrace an inclusive growth strategy it is important over the long term such job opportunities are accessible throughout the region.

4. There is also a challenge in balancing the skills profile of residents and workplace opportunities within BCR. The range of skill profiles and academic achievements across each of the LGDs which comprise BCR suggest a mix of approaches is likely to be required.

5. This report does not make policy recommendations, but a number of policy observations are drawn out.

Skills model demand side

Growth of BCR economy

6. **Given the magnitude of BCR job growth over the period 2012-2017 was equal to the NI average** (9%), accounting for almost two thirds (64%) of total NI job growth. Importantly, **over one third (36%) of BCR job opportunities were generated within BCC**, highlighting dependency on BCC**.** The sectors which have experienced particularly strong job growth in the last five years are other services, administration and support activities and accommodation and food.

7. Under a high growth scenario, **future job growth (expansion demand) over the coming decade in BCR is forecast to be driven by high skill sectors such as**

professional services and ICT. This translates to high growth in science and technology occupations, which highlights the importance of education performance in STEM subject areas.

8. **When focusing on skills forecasting it is prudent to plan for skills needs in an aspirational nature based on the ambitions of economic policy**. There is a risk of oversupplying skills if the aims of economic policy are not achieved, which would involve a cost at the individual level for people investing skills unable to find suitable employment opportunities. However, this potential cost is relatively lower when considered alongside the potential cost of undersupplying skills. If businesses are unable to find the skilled labour required to expand their businesses it depresses competitiveness, productive capacity and holds back future job growth.

Replacement demand and its importance

9. Although BCR is forecast to experience rapid employment growth in under a high growth scenario, **net replacement demand provides 2.0 times as many job opportunities** (replacing workers who have retired, moved to another position etc.).

10. The largest sectors with regard to employment numbers tend to be associated with the highest levels of replacement demand. Therefore, sectors such as health, wholesale and retail and public administration will have relatively large levels of replacement demand in the BCR economy. This is an important point with regard to careers advice, as **sectors do not necessarily have to be growing rapidly in order to provide job opportunities.**

Net requirement from education and migration and its composition

11. The net requirement from education and migration is the total number of job opportunities (expansion and replacement) which require labour from either the education system or from migration (i.e. that the demand cannot be filled from inside the existing labour market).

12. The sector forecast to provide the most job opportunities in BCR is professional scientific and technical followed by administration and support services and hospitality. However, recalling the point made above **sectors do not have to be growing rapidly in order to create job opportunities given the role of replacement demand**.

13. Of the net requirement from education and migration **over the coming decade, 33% of job opportunities will require a degree level qualification** (NQF level 6+). Only 10% of the net requirement from education and migration will require qualifications below NQF level 2.

14. Individuals with low levels of education attainment and skills are increasingly disadvantaged in the labour market. **The net requirement has a higher skills profile than the current stock of workers in BCR**. This suggests that it is imperative that policy minimises the number of young people with low-level qualifications. Education and labour market policies that support the most vulnerable

groups can bolster inclusive economic growth by equipping individuals of all backgrounds with the skills to obtain 'good' jobs.

15. **The most in-demand subjects from education and migration amongst graduates (NQF level 6+) are: business and finance; medical related subjects; and maths and computer science.** At sub-degree level (NQF level 4-5) the most in-demand subjects are health, public services and care; business administration finance and law; and engineering and manufacturing technologies.

Intra labour market flows

16. **The majority of job vacancies are filled by people already working in the labour market (i.e. job-to-job movements).** Many of the vacancies requiring lower levels of qualification are filled by those already within the labour market, rather than recruitment from the education system (net requirement from education and migration).

17. Although there remains a significant proportion of people working in the labour market with low-level qualifications, they have work experience and are not necessarily low skilled. There creates an insider-outsider element within the area of the labour market characterised by low qualifications. In other words, low qualified individuals inside the labour market have some mobility to move between jobs. However, once a person with low levels of qualifications is out of work it is difficult for them to find suitable opportunities to re-engage in the labour market.

The importance of skills

The impact of skills on economic and social development

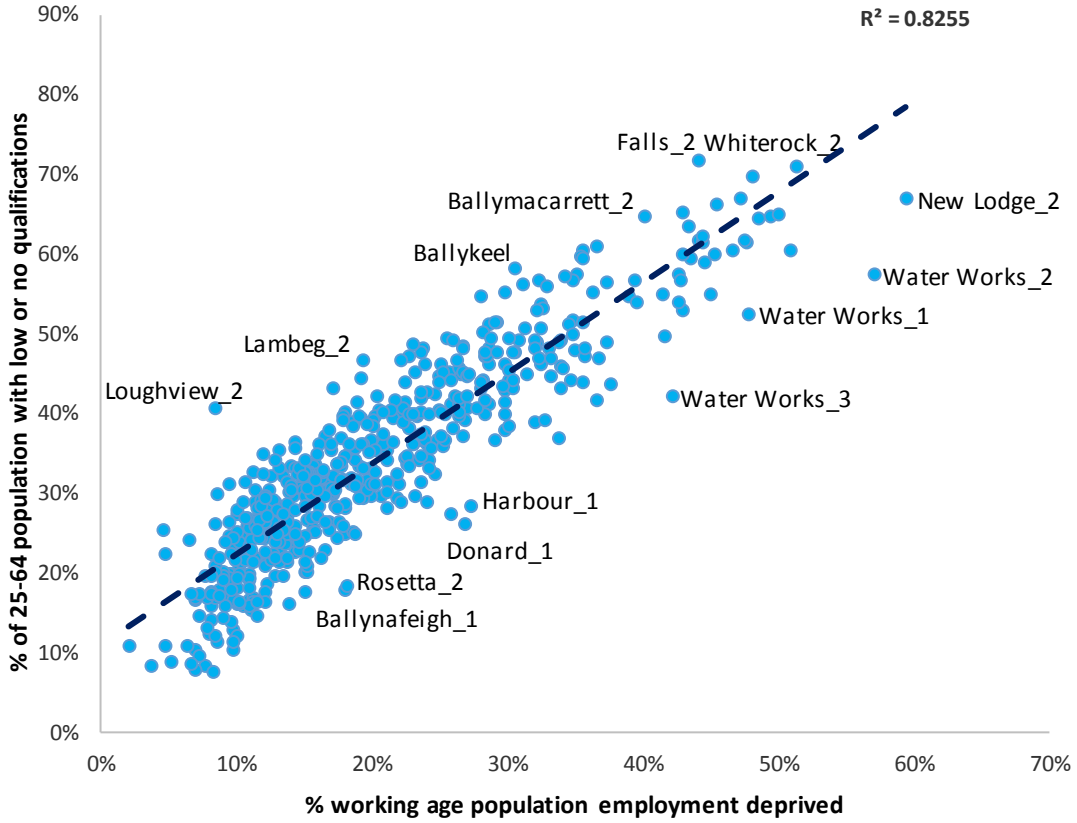
18. Economic and social development are closely related to the skills of the population. The OECD survey of adult skills highlighted that individuals with poorer foundation skills are far more likely than those with advanced literacy skills to report poor health, to believe they have little impact on political processes, and not to participate in volunteer activities[58]. There is a wide range of evidence available in published literature to demonstrate the **importance of formal skills in driving economic growth and providing a return to those investing in higher-level skills.**

19. In BCR, 87% of working age people with an NQF level 4+ qualification are in employment compared to 65% amongst working age people with a highest level of qualification below NQF level 3. In addition, a graduate (NQF level 6+) in NI has an earnings premium of more than 100% compared to a person with a highest level of qualification below NQF level 2.

20. The figure overleaf reinforces the impact of skills and employability in the context of BCR as it positively correlates the proportion of working age population defined as employment deprived against the proportion of 25-64 year olds with low or no qualifications.

[58] OECD (2012) The Survey of Adult Skills. Readers companion, second edition.

Figure 7.1: Proportion of 25-64 year olds with low or no qualifications (2011) versus % of working age population employment deprived (2015/16), BCR SOAs



Source: NI Multiple Deprivation Measure

Note: *Employment deprived is defined as proportion of working age population who are in recipt of at least one employment related benefit, and individuals who are not in recipt of an employment related benefit, nor have received income from employment*

The skill structure across BCR

21. When reviewing the stock of **skills it is important to recognise the variation in skill structure across LGDs which comprise BCR**. For example, in BCR the rate of school leavers achieving 5 GCSEs A*-C including English and maths (68%) is equal to the NI average. However, this figure varies from a high of 78% in Lisburn and Castlereagh to a low of 62% in BCC. Similar patterns exists across LGDs when analysing FE and HE participation and attainment levels i.e. BCC performs relatively poorer than other LGDs in BCR.

22. In a similar fashion the skill structure of BCR workforce is broadly similar to the NI average. For example, 36% of workers have achieved at least a tertiary level qualification, compared to 34% in NI as a whole. However, when analysing the individual council areas which comprise BCR the same figure fluctuates from a high of 44% in BCC to a low of 27% in Mid and East Antrim.

23. Recognising these variations is an important point when considering the resident versus workplace skills balance in BCR. Although the region as a whole has some misalignments, a deeper analysis reveals significant spatial differences. There are significantly lower resident qualifications in BCC relative to the workforce. However, in other council areas this relationship is less pronounced or in the opposite direction i.e.

higher resident skills compared to workplace. The higher concentration of tertiary qualifiers within BCC workplace is indicative of the relatively higher concentration of employment in sectors and occupations associated with highly skilled individuals. This implies workers from within BCR commute to BCC to fill the high concentration of vacancies typically associated with highly skilled individuals.

24. Despite the marginal misalignment between resident and workplace skills in BCR, the **more significant misalignments at LGD level still pose an important issue to consider**. The differences in LGDs highlight the difficulty some residents will have in accessing employment within their LGD. Labour mobility in NI is low relative to other parts of the UK[59]. Therefore, a mismatch between the skills of residents and jobs within an area will lead to wider employability challenges, particularly amongst the low skilled.

25. To improve the employability prospects of all BCR residents there are a number of options.

    - **Over the longer term policy incentives to generate more employment opportunities outside BCC** for those with higher qualification levels would not only improve the BCR skill imbalance but imbalances in individual LGDs.

    - Contrastingly, another option is to **generate more employment opportunities for those with lower level skill levels** within LGDs such as BCC where there is a high concentration of low qualifications. This is often a consideration overlooked by economic policy, which tends to focus on the above point around raising employment in higher productivity jobs.

    - **Local residents could be upskilled across the region** to better align with local demand and supply conditions, particularly given structural changes felt across the labour market.

26. Another element to consider when analysing the stock of skills in BCR is the demographic composition of the available labour. Within BCR there are differences in qualifications between different age groups. **That is higher qualified younger people and less qualified older people, this implies the stock of skills will gradually improve as people with low-level qualifications retire**.

School education system

Improving school achievements

27. Over the long term the stock of skills in BCR could be improved by reducing the number of low qualifications entering the labour market. In particular, reducing the number of school leavers with low educational achievement (i.e. not achieving 5 GCSEs A*-C including English and maths).

[59] Oxford Economics (2014) Labour mobility in Northern Ireland. Analysis of the determinants of labour mobility, and the degree of and barriers to labour mobility in Northern Ireland. A report for the Department for Employment and Learning.

28. The rate of school leavers in BCR achieving this level of attainment varies across LGDs. A more in depth spatial analysis highlights the geographical concentrations of low achievement in school leavers. That is, the rate of low achievers is significantly higher amongst inner city areas which also perform poorly on a range of other social and economic indicators.

29. Although the multifaceted economic and social factors outside the school system make this issue particularly difficult to address, a number of areas have experienced significant improvements in recent years from which policy lessons may be drawn. For example inner city areas such as Falls and Clonard both experienced on average a 26 percentage point increase in the proportion of school leavers achieving at least 2 A-levels A*-E over the period 2007/08-2015/16. A potential future research project could be a best practice review of schooling, with more detailed study of schools which have recorded improved results.

30. It is also important to draw upon school achievement in the context of employability. In other words, **the difference in the proportion of school leavers achieving any 5 GCSEs A*-C and those including English and maths is significant in addressing labour market barriers.** In BCR 80% of school leavers achieve any 5 GCSEs A*-C and 66% including English and maths, a 14 percentage point difference. The difference in achievement varies from 18 percentage points in BCC to 12 percentage points in Lisburn and Castlereagh. Importantly, achieving at least a pass grade in those two core subjects is often a prerequisite for employment, education courses and employment and training programmes. This highlights the value placed on literacy and numeracy skills within the labour market. A reduction in the gap between these two groups of achievers would reduce labour market barriers and decrease the number of school leavers likely to enter FE institutions to re-sit GCSE maths and English.

The impact of school structure on pupil performance

31. There are a number of factors inherent in the structure of the NI school system and within individual schools that affect pupil performance. It is beyond the scope of this study to undertake an analysis of either. However, empirical literature concludes that a number of features of schools contribute to an overall improvement in academic performance including financial resources (especially for disadvantaged pupils)[60]; accountability (e.g. inspections)[61]; autonomy[62]; school leadership[63]; and the degree of school choice available to parents and children[64].

32. Academic selection is a contentious issue in NI and this report has not studied the pros and cons of a selective education system in detail. However, **it would be remiss not to flag the large discrepancy in achievement between and grammar and**

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[60] Gibbons, S. and McNally, S. (2013) *The effects of resources across school places: A summary of recent evidence,* CEP Discussion papers, CEPDP1226, London: Centre for Economic Performance, London School of Economics and Political Science.
[61] Gibbons, S. and Machin, S. (2003) Valuing English Primary Schools, *Journal of Urban Economics* 53: 197-219
[62] Machin, S. and Silva, O. (2013) School structure, school autonomy and the tail, CEP special report, London: Centre for Economic Performance, London School of Economics.
[63] Brandy C. Sirchia Huguet, (2017) "Effective leadership can positively impact school performance", On the Horizon, Vol. 25 Issue: 2, pp.96-102.
[64] Allen, R. and Burgess, S. (2011) Can school league tables help parents choose schools? *Fiscal Studies* 32(2): 245-261.

non-grammar schools. Almost all (95%) school leavers in NI from grammar schools achieve at least five GCSE's A*-C including English and maths, compared to less than half (48%) in non-grammar schools. There are also large differences between grammar and non-grammar schools with regard to the school intake. Grammar schools have a much lower proportion of enrolled pupils entitled to FSM (14%) compared to non-grammar schools (39%). **The differences in school intake alongside drastically different levels of performance have clear implications for social mobility.**

33. The empirical evidence overwhelmingly supports the notion that academic selection does not improve academic outcomes for the average student. Evidence from Norway[65], Sweden[66] and Finland[67] (which all moved from a selective system to a comprehensive system) highlights the beneficial effects on average attainment and particularly strong positive effects for lower socioeconomic groups. Major reforms in Poland's school system helped to dramatically reduce performance variations amongst schools while at the same time increasing overall performance[68]. The key message is that **countries do not have to sacrifice high performance to achieve equity in education opportunities**.

34. A difficult aspect of this policy debate is that people often confuse the positive effects of attending a grammar school from the overall effect on education attainment from having a selective system compared with a comprehensive one. In other words, people often fail to consider the impact of a selective system of those who fail to get into a grammar school and the cost associated with a lower probability of attaining the minimum standard of education expected by the end of compulsory schooling.

The impact of the home learning environment on pupil performance

35. The literature reviewed in this research has highlighted that the **home learning environment is arguably a stronger influence on a child's education performance than the school environment**. There is evidence which outlines the positive impact programmes have had which aim to train parents how to teach their children literacy skills[69].

36. The evidence on parenting raises some challenging issues from a policy perspective. Parents matter a great deal in their child's education. They influence academic achievement in the resources they provide, the way they raise their children and their aspirations for them. Many will be uncomfortable both with the state determining what makes for a good parent, and with the state telling parents how to parent. However, there less reservations with the state determining what makes a good teacher or an effective school. Taking into account the convincing evidence that the home-learning

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[65] Aakvik, A., K. G. Salvanes and K. Vaage (2010) "Measuring heterogeneity in the returns to education using an education reform", European Economic Review, 54, pp. 483–500.

[66] Meghir, C. and M. Palme (2005), "Educational reform, ability and family background", American Economic Review, 95:1, pp. 414–424.

[67] Pekkala Kerr, Sari, Pekkarinen, Tuomas and Usitalo, Roope, (2013), School Tracking and Development of Cognitive Skills, Journal of Labor Economics, 31, issue 3, p. 577 – 602.

[68] Wes, M. Rzeczpospolita, C.B. (2016) Poland's Education system: Leading in Europe. World Bank.

[69] Senechal, M. and Young, L. (2008) The effect of family literacy interventions on children's acquisition of reading from kindergarten to grade 3: A meta review. *Review of Education Research*

environment matters more than school for a child's development **it should be acknowledged that many of the factors affecting a child's academic progress are outside the control of schools, and may require a different approach.**

Quantifying the cost of underachievement in the school system

37. Research has not been undertaken in NI to identify the true cost of the long tail of underachievement in schools. Calculating such a cost is multi-faced comprising lost potential with regard to opportunity cost, and a fiscal cost associated with underachievement.

38. **Under achievement is likely to lead to a significant fiscal cost across a range of public policy interventions**. Firstly, low achievers are likely to be tied up in the education and training system for a number of years at significant public cost. They are also much more likely to become workless and generate a cost via out of work benefit payments.

39. Considering the wide range in pupil performance rates across BCR school the cost of underachievement is likely to vary significantly depending on the area. Therefore, further research to quantify the economic cost should recognise this as the region is likely to require diverse policy responses. Any further research into this area would be beneficial in beginning public conversation on how underachievement can be best tackled as it ultimately leads to a range of social and economic inequalities over a person's lifetime.

Further education institutions

Professional and technical skills

40. The NQF profile of qualifiers in FE colleges is weighted towards low level qualifications. The rate of FE qualifiers achieving highest qualification below NQF level 2 in BCR is above the NI average (59% and 57% respectively). Additionally, only one-tenth of FE qualifiers in BCR achieve a qualification higher than NQF level 3, demonstrating the **limited supply of people studying higher level vocational qualifications focussed on professional and technical skills**.

41. Moving qualifiers towards higher level professional and technical skills is important from an economic perspective. Labour demand and supply in BCR appears to be misaligned with a shortage of people with qualifications at NQF level 3-5 entering the labour market.

42. In most other OECD countries a much higher proportion of students enrol in these types of courses compared to NI, and they are valued by firms and students as highly as university qualifications. In NI (and the UK) parents, teachers and students seem to view professional and technical qualifications as lower status than degree qualifications. This leads to students not considering an FE path when making decisions related to their tertiary level education, which contributes to mid-level skills shortages. **There are clearly efforts required to change these perceptions**, and make young people aware of the higher-level options available to them in FE, and the potential economic returns associated with each course offering.

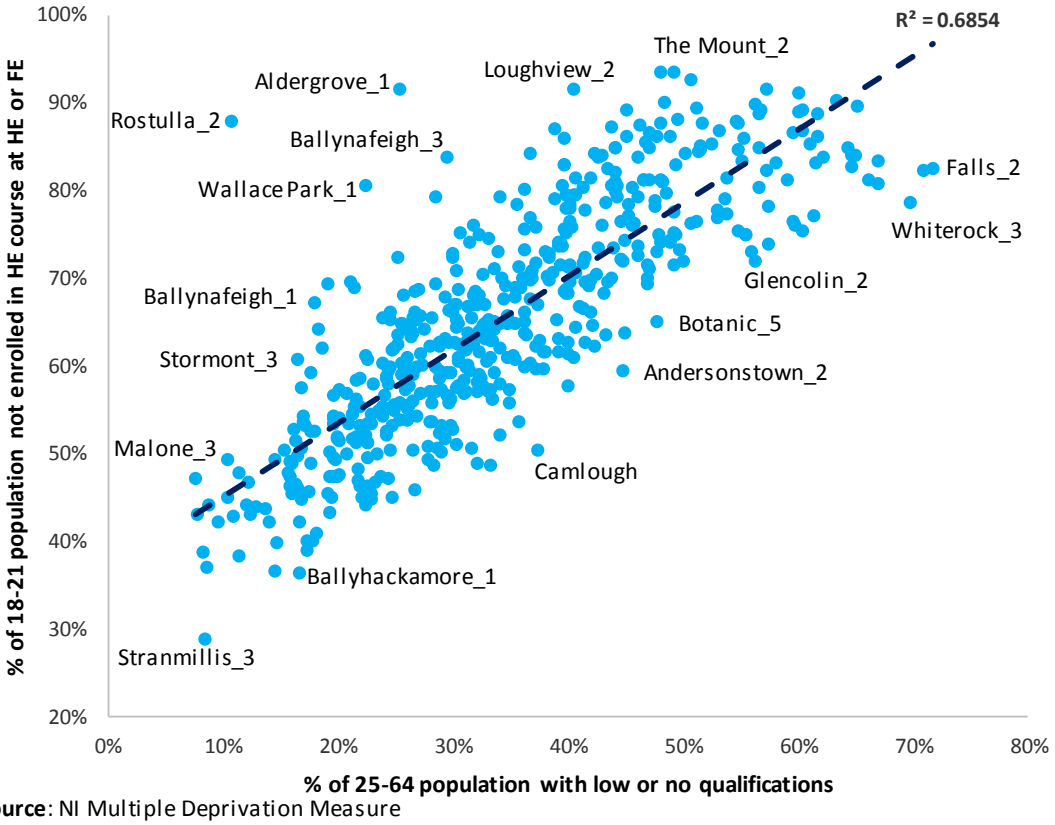
Higher education institutions

Participation in higher education

43. **The participation of young people (18-20 year olds) in HE is below the NI average in BCR** (37% and 34% respectively). The figure is significantly skewed by low rates of participation in BCC (23%), excluding BCC from the analysis the rate increases to 41%.

44. **The HE participation rate of young people is directly influenced by school performance across the region.** For example, given lower levels of academic achievement in BCC a lower rate for this LGD is unsurprising. There is a troubling relationship between participation in HE and the skills of the 25-64 population, whereby very few young people participate in HE in areas with very low levels of adult skills. This is a pattern which policy should seek to break.

Figure 7.2: Proportion of 25-64 year olds with low or no qualifications (2011) versus % of 18-21 population not enrolled in HE course at HE or FE (2015/16), BCR SOAs



Source: NI Multiple Deprivation Measure

Note: *SOAs where no data is avilable have been excluded*

Subject diversity

45. In BCR 27% of graduates qualify from unspecialised subjects which is equal to the NI average. However, it is estimated that over the coming decade **22% of graduate demand will be for qualifiers in STEM related subjects** (maths, computing, engineering and technology), yet at **current levels only 11% of BCR graduates** qualify **from these subjects.**

46. The high growth forecast in a number of STEM related sectors (e.g. ICT) directly drives the requirement of students graduating from STEM related degree programmes. It will be important to ensure that the future supply of graduates is adequate to meet the demand in high growth sectors such as ICT.

47. School participation and performance in STEM related subjects linked to high growth will enable new university entrants to participate in degree courses requiring STEM related skills. Additionally, **quality careers information as early as possible relating to the benefits of STEM is an important step** to encourage more people to study STEM related subjects. Often certain STEM courses have entrance criteria linked to particular subjects at A-level and it is important such information is communicated accurately.

48. Aside from providing more degree subject options being available to new university entrants, studying STEM subjects at A-level can also contribute to better labour market outcomes. A recent study found that pupils who achieved a single STEM A-level (possibly amongst others) achieved a wage return of 20% from doing so, the return for those achieving at least 2 A-levels not including a STEM subject was just 5.3%[70].

Lifelong learning

Focus on low skilled and out of work

49. It is important to recognise that public resources for skills, education and training are finite. Key target groups should be young people (particularly those who are out of work), people with low skills currently excluded from the labour market who would 'like to work' and workers with low level skills who have not continued to advance their skills over the life course through training or other lifelong learning methods. **Addressing changing skill needs in the economy is essential to shield workers with low skills from the negative effects of job loss and structural change.**

50. **Upskilling poorly qualified parents can be effective** on two fronts. Firstly, by improving employment prospects for out of work adults and occupational mobility for in-work adults. Secondly, an improvement in parent's skill levels has a positive impact on children's school performance.

51. The number of people in work receiving accredited training that moves them up the NQF scale is relatively small. In addition, rising participation in non-standard working arrangements creates a need for learning incentives not directly tied to one's job. For example, France grants training leave rights to individuals which are preserved upon job loss and transferrable between employers.

52. Although lifelong learning should be encouraged for all, from a public resources perspective, it is likely that the returns to education are much higher amongst younger people compared to older people. International evidence highlights that other countries are making effective use of the available administrative data as an evidence base to ensure better value for money on training initiatives relating to the

[70] Conlon, G., and Patrignani, P. (2015) 'The earnings and employment returns to A-levels', London Economics.

unemployed. For example, Ireland introduced a statistical profiling tool called PEX (Probability of Exit). It estimates the probability that jobseekers will exit unemployment within one year based on a model using a wide range of economic and social indicators. Claimants with the lowest probability of exit are then selected for more intensive or more active case management.

Social and economic influences on education performance

Identifying influences on education performance

53. The list of causal factors influencing education performance is too long to discuss in detail in this report. However, bi-variate correlation analysis across economic and social indicators undertaken in this research highlights significant relationships between a number of factors and education performance:

- **Intergenerational transfer of low skills:** There is a high correlation between areas where a high proportion of school leavers are failing to achieve at least 5 GCSE's including English and maths, and the skills of the 25-64 population. This suggests that there is an increased probability of low achievement at school where parents' highest level of qualification is relatively low.

- **Socioeconomic status:** There is a strong correlation between socioeconomic indicators such as FSME, employment deprivation and school performance.

- **Aspiration in high deprivation areas:** Low participation rates of young people enrolled in a HE level course is concentrated within small pockets of BCR, particularly within inner city Belfast. The rate of participation significantly correlates with the proportion of 25-64 year olds qualification levels. That is, areas with low participation in HE course are also associated with low levels of adult skills. This implies low adult skills in an area can negatively affect the education aspiration of young people.

- **Family structure:** There is a statistically significant relationship between the proportion of births to lone parents and school performance. Lone parents are also likely to be low achievers relative to other family types which disproportionately associates children of lone parents to outcomes associated with low adult skills. Further, the rate of lone parents in an area significantly correlates with a range of indicators relating to poverty. Therefore lone parents are a particularly vulnerable family structure to poor educational performance of children.

54. These factors reinforce each other which contributes to concentrated areas with low level skills, in turn negatively impacting a cycle of social and economic indicators. There is no single policy initiative that will solve the spatial concentration of skills deficits across BCR. Therefore, **a multi-agency locally focussed response is required. Without a recognised panacea to address this issue there is scope to test pilot initiatives**. With high concentrations of underachievement in relatively small spatial units new approaches can be tested and rolled out to other locations if there is evidence of a demonstrable positive impact.

Effectively targeting areas in need of support through data

55. The literature and data available highlight that there are children in households with particular types of characteristics that are more likely to fall behind, specifically in the early years of their education.

56. The bi-variate correlations undertaken in this report illustrated significant relationships between socioeconomic variables and academic achievement. Using a range of socioeconomic indicators alongside currently unpublished administrative data (household income, households with out of work adults etc.) it is possible to identify specific areas where schoolchildren have a higher probability of falling behind and thus a higher probability of low achievement. This would pave the way for **early interventions with targeted support to tackle learning barriers**.

Employability

Government training programmes

57. Government training schemes such as Training for Success and Steps to Success are designed to help equip individuals with skills to improve their employability. In BCR the rate of individuals participating in Training for Success is above the NI average (11% and 10% respectively). However, the rate varies from a high of 15% in BCC to 7% in Lisburn and Castlereagh.

58. The participation rate on Training for Success is directly linked to school performance across LGDs. In other words, areas within BCR which have performed poorly in terms of school performance are likely to have higher rates of participation. Additionally, Steps to Success is a compulsory programme for long-term unemployed individuals and so, areas of with high rates of unemployment will subsequently have higher participation rates on the training programme.

59. Importantly, the number of participants on these programmes is of a sizable scale and often overlooked. There is evidence of participant recycling on the programme with people who had previously participated re-joining the programme. The cost of delivering such programmes is significant, and the evidence of successful labour market outcomes is mixed. **The high number of participants on such schemes is considered a legacy cost directly linked to the long tail of underachievement in NI schools.**

Employer attitudes

60. The 2017 CBI/Pearson education and skills survey highlighted that in NI more than four in five local businesses expect to hire high-skilled roles in the next three to five years; but only three in every ten companies (29%) are confident of having the supply of talent they need to fill them[71].

61. This is a common complaint amongst employers, and **the numbers of employers consistently reporting a lack of basic employability skills amongst graduates**

[71] CBI/Pearson (2017) Helping the UK thrive; CBI/Pearson Education and skills survey

is concerning. Fewer students working in part-time jobs may explain part of this[72] or a lack of work based learning within degree programmes.

62. The 2015 Employer Skills Survey (ESS) highlighted that many firms found people skills lacking amongst applicants. The main skills listed as lacking amongst applicants included an ability to prioritise their own tasks (47%); customer handling skills (41%); managing or motivating other staff (40%); sales skills (37%); and team working (36%).

63. More than half of firms in the CBI/Pearson survey stated that poor careers advice is a major cause of skills shortages in the NI economy. Over 80% stated that they would be willing to play a greater role in supporting careers advice in schools and colleges. With such a high proportion of employers stating that they are willing to make a positive contribution towards helping students make good choices, it suggests that **there is further scope for initiatives to include employers in curriculum and course design.**

Provision of workplace related skills

64. Many of the competencies and behaviours demanded by employers are difficult to develop outside of a real workplace. For example, attitudes towards work, including taking responsibility, meeting deadlines, and knowing how to act in a given situation. There is a legitimate argument that it is not solely the role of education institutions to provide students with these type of workplace skills. Instead, some responsibility should be on employers to adequately train their staff to ensure they have skills for their workplace. **Improving the soft skills of graduates should be a shared responsibility between education providers and employers.**

65. **In the classroom, efforts should be made to simulate the work environment through use of solving applied problems that frequently occur in the workplace**. If employers want to help shape the skills of the supply of graduates in degree subjects related to their business it can be achieved by developing relationships with education providers and contributing to course design.

Work placements

66. **Increased participation in HE has created a large group of labour that is relatively homogenous in nature.** Recent graduates have relatively similar levels of school achievement and degree classifications awarded have skewed upwards over the past twenty years. For example, of the first degrees awarded in 2017, 23% were awarded first class honours compared to just 7% of a smaller cohort in 1997. Similarly, in 2017 the proportion of first degree qualifiers achieving a third class/pass degree classification was just 2.9% compared to 11.2% in 1997.

67. **With high numbers of qualifiers with relatively similar CV's it is important to stand out from the crowd**. To compliment degree level qualifications employers also

[72] UKCES (2015) The death of the Saturday job. The decline of learning and earning amongst people in the UK.

expect students to possess wider employability skills. The most effective way for students to improve their employability skills is to undertake a work placement.

68. **The evidence that a placement year improves employability opportunities is strong**[73,74]. Indeed, a lack of work experience is a key labour market barrier for graduates. Many recruiters also consider that hiring candidates who have proven their abilities during a placement to be a more reliable way of employing graduates[75].

69. The widening of participation in HE and limited placement opportunities amongst local employers leads to many students being unable to secure a work placement. There is a need to increase the number of work placements to effectively align the supply and demand for placements. Therefore, universities need to engage with employers to develop solutions on how best to achieve this.

The labour force today

Adapting to change in the labour market

70. The modern labour force is currently undergoing a period of transformational change, with some occupations being vulnerable to skills biased technological change. This change highlights the **importance of continued lifelong learning to enable greater occupational mobility within the NI labour market**. A critical question is if lifelong learning opportunities are accessible to all, and understanding what barriers exist.

71. As a wider point, we should aspire to deliver world-class careers advice in tune with labour market needs in schools as early as possible. **Pupils should be provided with all the available labour market information in order to make informed career choices (e.g. a careers information portal)**. When choosing degree subjects pupils should at least have an awareness of the number of job opportunities related to their degree before choosing a degree subject.

Skills versus qualifications in the labour market

72. There are also many people within the existing labour market who have a low level of qualification, yet are highly skilled. In other words, **people employed have accumulated skills on the job but do not have a qualification on the NQF framework to recognise their skill level**.

73. This is an important aspect to consider in the local labour market. There are many people still participating in the labour market over 50 who entered into employment when there was a much lower emphasis on formal qualifications. While a lack of formal qualifications may not be an issue for an older worker who has worked for the same firm for many years. If that person were to become unemployed, they may face

[73] Mason G., Williams G. and Cranmer S. (2006) 'Employability skills initiatives in higher education: what effects do they have on graduate labour outcomes?' London: National Institute of Economic and Social Research
[74] Hall M., Higson H. and Bullivant N. (2009) 'The role of the undergraduate work placement in developing employment competences:Results from a five-year study of employers' Aston Business School, Birmingham
[75] High fliers (2018) The graduate market in 2018

challenges in obtaining suitable employment, and would encounter similar difficulties if attempting to move between jobs.

74. Validating formal and non-formal learning strengthens individual's incentives to invest in training, helps to promote job-to-job transitions, and can reduce the incidence of under-qualification. **A recognition of prior learning would strengthen the signalling power for individuals who are highly skilled but poorly qualified** due to the labour market conditions at the time they left the formal education system.

Looking forward

Plan for success – but have a back-up plan

75. It is advised to plan the supply of skills based on the economy policy seeks to achieve, although it is also important to be cognisant of the potential for oversupply. If the BCR economy were to experience a recession, stagnant job growth or a sector shock there is a potential for an oversupply of graduates. Therefore, it is **important to have measures in place to mitigate the potential for an oversupply of skills** (e.g. conversion courses for workers made redundant, training rights for young people unable to secure employment after graduation etc.).

Consider the links to wider policy

76. **There is a mismatch across skill levels between current skill stock and estimated skill demands.** It is likely that BCR will remain reliant upon BCC to generate a large volume of jobs, specifically those associated with high skills and high productivity. This has implications for transport planners, as high job growth in sectors such as ICT and professional services will likely lead to increased commuting and congestion in BCC. Therefore, over the medium term it will be important to strengthen connectivity to BCC and consider measures to reduce congestion. Over the longer term, ensuring such job types are accessible across BCR will relieve pressure on the transport infrastructure and fit with the wider policy aim of inclusive growth.

Consider fiscal implications of underachievement

77. There is a clear causal link between social inequality and educational achievement, with the relationship being particularly strong when the data is analysed using small geographies such as wards and SOA's. **If public policies do not deal directly with the root causes through education and skills formation the cost of redistributive policies like taxes and social transfers (i.e. unemployment, training and out of work sickness payments) is likely to be much higher in the long run.**

78. The OECD[76] estimated that the economic gains that would accrue solely from eliminating extreme underperformance in high-income OECD countries by 2030 would be sufficient to pay for the primary and secondary education of all students. Therefore, any underinvestment in skills against a backdrop of short-term fiscal

[76] OECD (2015) Universal basic skills: what countries stand to gain.

constraints can be short-sighted and ignore the potential long-term return on investment.

Using longitudinal data to track the effectiveness of education system and training programmes

79. Tracking and analysing longitudinal data can provide clarity on the effectiveness of courses across each stage of the education system as well as government training programmes. Better tracking the education journey of learners through all stages the education system can provide huge policy insights.

    - **Grade repetition:** Numerous research articles have highlighted the negative consequences of grade repetition in schools. Enrolment data in FE suggests a version of this occurs in the post-secondary education system in FE colleges, with a recycling of students who undertake multiple courses without moving up the qualifications ladder. While the data indicates that this is likely to occur, there is no conclusive statistical evidence base. By better tracking students throughout their entire education journey the outcomes of their courses could be more effectively evaluated, and students course-to-course transitions could be better understood.

    - **Government training programmes**: higher spending does not always translate to higher levels of achievement. For example, numerous publically funded training schemes are relatively ineffective at raising achievement. Data analytics methods such as data linking should be utilised to measure the value added of different courses/training programmes (e.g. linking learners to tax records to monitor their labour market performance). The benefit of data linking methods using administrative data is that it enables data to be analysed on a longitudinal basis. For example, participants on training schemes can be tracked for a period of years to ensure that after qualifying that they maintain their labour market participation and that their earning potential has increased. Crucially, this type of programme evaluation can identify if the same individuals reappear in other out of work training schemes at a later point.

80. The need to better quantify student outcomes also applies to tertiary education. By linking student information to tax and benefit records it is possible to gain insight in a number of areas:

    - **Graduate underemployment**: There is some evidence of graduates being employed in non-graduate occupations in recent years. This could be either a demand side weakness or linked to the expansion of HE participation. This is an area requiring further research. Linking to tax records would provide insight that is currently unavailable from published data sources.

    - **Course value**: Earnings data available at the UK level highlights a diverse earnings profile across degree subject areas. Linking to tax records could potentially quantify differences in earning potential across degree courses.

    - **Returns to FE**: Currently very little data is available relating to the long-term returns to a qualification obtained in a FE institution. Tracking earnings in the years following the successful completion of a FE course could provide valuable

data that would help to change perceptions amongst parents and students regarding FE. This would be a helpful addition to the available research and could help effectively communicate the positive economic outcomes associated with professional and technical qualifications.

81. The range of research possibilities from linking education data to tax records is almost limitless. The data gathered from this undertaking could inform careers information and improve student's ability to make informed career choices. The data could also be used to inform funding decisions. For example, in 2017 Estonia introduced a new funding model for HE based on performance with one of the assessment indicators being the labour market outcomes of graduates.

Understanding what works

82. With better, and more integrated, systems of data collection it should be possible to undertake a **meta-evaluation of all forms of public intervention relating to skills**. To effectively evaluate policy impacts a record should be developed which holds data on each individual, the assistance they received and the outcomes associated with the intervention. This approach will avoid the problem of double counting individuals who have participated in multiple education and skills initiatives. **Before any significant new interventions are introduced it is important to understand what has worked best within the publically funded education and skills system.**

Effective skills planning involves a coordinated approach – the need for qualitative evidence

83. Many employers report difficulties finding workers with the skills they require, and a high share of adults are working in jobs that are not well matched to their qualifications. Skill imbalances can lead to lower earnings and job satisfaction at an individual level alongside stunted productivity growth and lower economic growth at a macro level. Therefore, effective planning of skill needs is of critical importance.

84. Skills modelling uses assumptions drawn from recent data relating to sectors and occupations. However, this approach assumes that the labour market is currently in equilibrium. In other words, the skills currently operating in sectors and occupations match employer demand.

85. Given this drawback to relying purely on quantitative data for skills planning it is **important to gather qualitative views from employers relating to skill needs**. This can take the form of a consultation exercise, or an independent body. For example, in Ireland the Expert Group on Future Skills Needs is an independent non-statutory body that includes representatives from the business community, education and training providers, trade unions, and a small number of Government Agencies.

86. Quantitative evidence can only provide insight to a certain extent. **Qualitative data is required to provide a full picture of the skills environment within BCR**. For example, the voice of those outside the labour market often goes unheard. To actively understand labour market barriers amongst relatively recent qualifiers a 'big conversation' is required with the under 25's. This could include research amongst

both young people outside the labour market and recent graduates to assess the level of underemployment in BCR.

87. Although the constituent LGD's within BCR each face a disparate set of challenges, many policies related to economic development require a coordinated approach. For example, with the current skills profile of BCC's residents the city will continue to be reliant upon commuters to meet the demand for high skilled labour generated by businesses resident in BCC. Conversely, residents in other LGD's within BCR with relatively lower levels of skills demand rely on sustainable infrastructure with efficient transport connections to Belfast city centre. An effective use of funds may **include BCC investing in infrastructure projects** where the majority the development is **outside the BCC boundaries** (i.e. other BCR LGDs), **and a centralised skills funding pot whereby areas such as BCC with a significant skills deficit would receive a proportionately larger share of the funding.**

Concluding remarks

88. This report has identified the position of BCR in relation to forecasted future skill demands. The research has drawn together analysis and literature from wide ranging social and economic indicators which influence skills potential within a region.

89. The demand for future skills is estimated to be concentrated amongst mid to high level skills (NQF level 3-6+) over the coming decade and the region is expected to continue to rely upon BCC for high skill job opportunities.

90. An analysis of the supply side identified significantly diverse skill stock and educational performance across LGDs which complete BCR but as a whole performances tended to be close to the NI average on a number of supply side indicators.

91. The contrasting positions of LGDs, wards and SOAs which constitute BCR across various indicators highlights the inherent diversity and subsequent need for flexible policy responses within the region – no 'one size fits all'.

92. There has been progress in a number of areas with regard to skill profiles from which future policy can learn lessons. However, it is important to note there has been little evidence of convergence. Policy should consider learning from areas within BCR which have seen improvements in skills over recent years and apply relevant lessons to those areas consistently performing poorly. As skills represents the most effective route out of poverty, tackling low performance in these 'left behind' areas must be an economy with aspirations of promoting inclusive growth for all its residents[77].

[77] Belfast City Council (2017) The Belfast Agenda. Your future city. Belfast's community plan.

Annex A: Skill requirement's for tomorrow's economy – Baseline Scenario

Baseline Scenario

1. The baseline is the economic scenario which directly links to the UUEPC economic forecasting model. **The baseline scenario is what UUEPC considers to be the most likely economic trajectory for the local economy.**

2. **The employment outlook in the baseline scenario is considerably lower than the high growth scenario presented in chapter three of this report**. The high growth scenario involved an increase in workforce jobs of 40,800 (2.1% per annum) compared to 15,200 in the baseline scenario (see figure 3.1). The largest differences between the two scenarios are in the information and communication and professional services sectors. Under the high growth scenario the information and communication sector creates 8,100 additional jobs between 2017-2027, compared to 2,600 under the baseline scenario. The professional services sector creates 10.3k additional jobs under high growth scenario, compared to 3,400 in the baseline scenario (see table 3.1).

Demand for labour in BCR

3. While the net change in employment – technically termed expansion demand - is often more widely understood and 'visible' within the economy as a driver of future demand, it remains the case that, especially in the baseline scenario, future skills and employability demand will still be significantly determined by net replacement demand.

4. The table below summarises expansion and replacement demand forecasts for BCR over the 2017-2027 period for the baseline and high growth scenarios.

Table A.1: Expansion and replacement demand, BCR, (2017-27)

Demand category	High growth (2017-2027 per annum)	Baseline (2017-2027 per annum)
Gross demand	51,790	46,210
Expansion demand	5,950	2,160
Replacement demand	45,840	44,050
Filled from within the existing labour market	33,710	32,410
Net replacement demand	12,130	11,640
Net requirement from education and migration	**18,080**	**13,800**

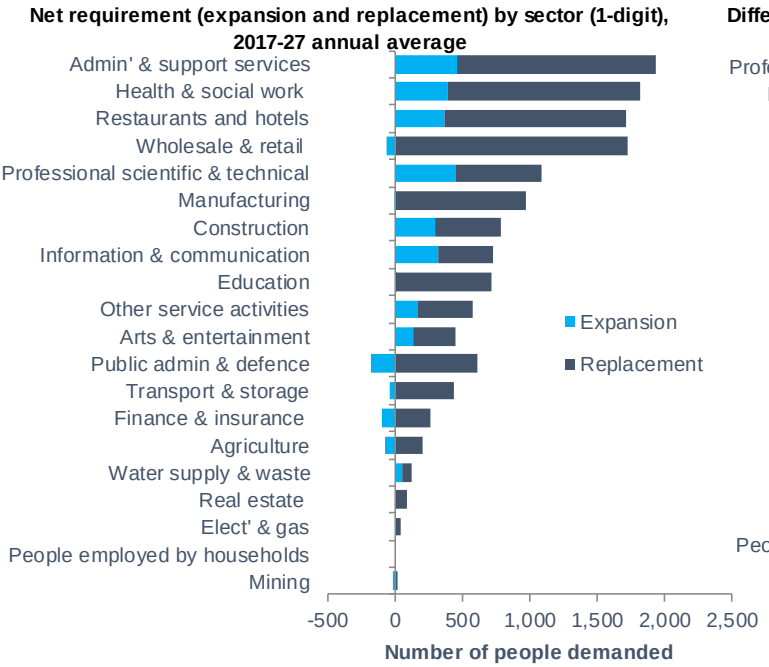
Source: UUEPC

5. As is illustrated from the table above, under baseline conditions with lower expansion demand, a larger component of labour demand comes from replacing workers who have left their position. **Under baseline conditions net replacement demand is forecast to be 5.4 times larger than expansion demand**. On average, over the 2017-27 period the annual net requirement from education and migration is forecast to be 4,280 lower compared to the high growth scenario.

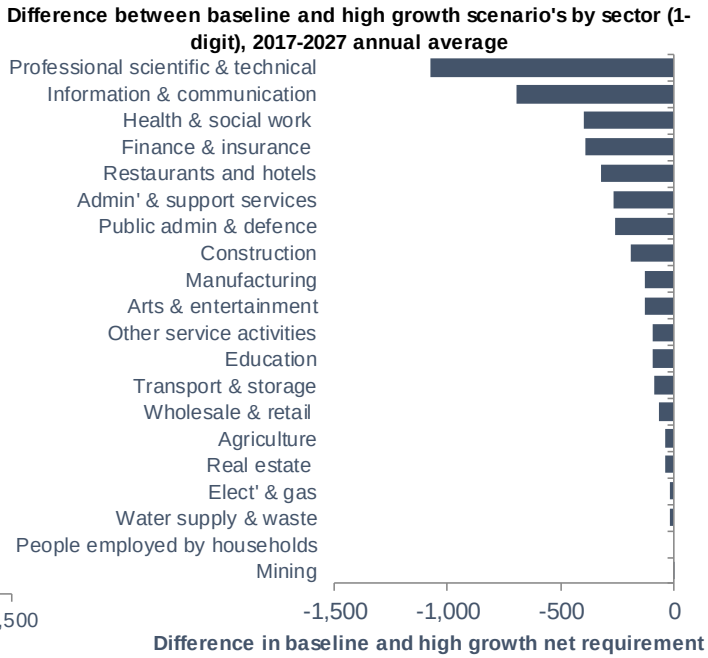
Where will labour demand be concentrated

6. **Sectors with the largest net requirement from education and migration under the baseline scenario are administration and support services (1,940 per annum) and health and social work (1,820 per annum).** It is worth noting that relative to the baseline net replacement demand accounts for a higher proportion of overall demand across all sectors. The largest differences in the net requirement between the baseline and high growth scenario's is in the professional services and information and communication sectors.

Figure A.1: Net requirement by sector (1 digit) BCR, (2017-27)



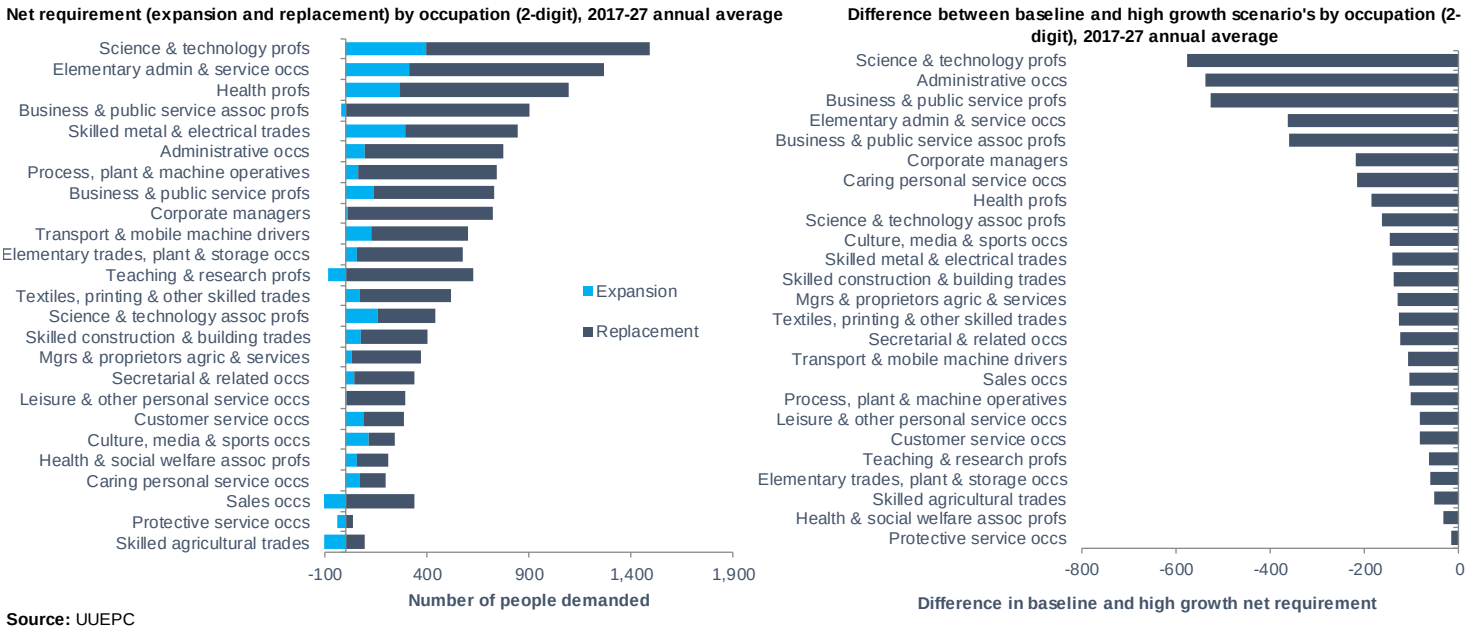
Source: UUEPC



Source: UUEPC

7. From an occupation perspective, under baseline conditions the largest demand from the education system and migration is concentrated in science and technology professionals and elementary and administration service occupations. The largest differences between the two scenarios are recorded in science and technology professionals (difference of 580 persons) and administrative occupations (difference of 540 persons).

Figure A.2: Net requirement by occupation (2-digit), BCR (2017-27)

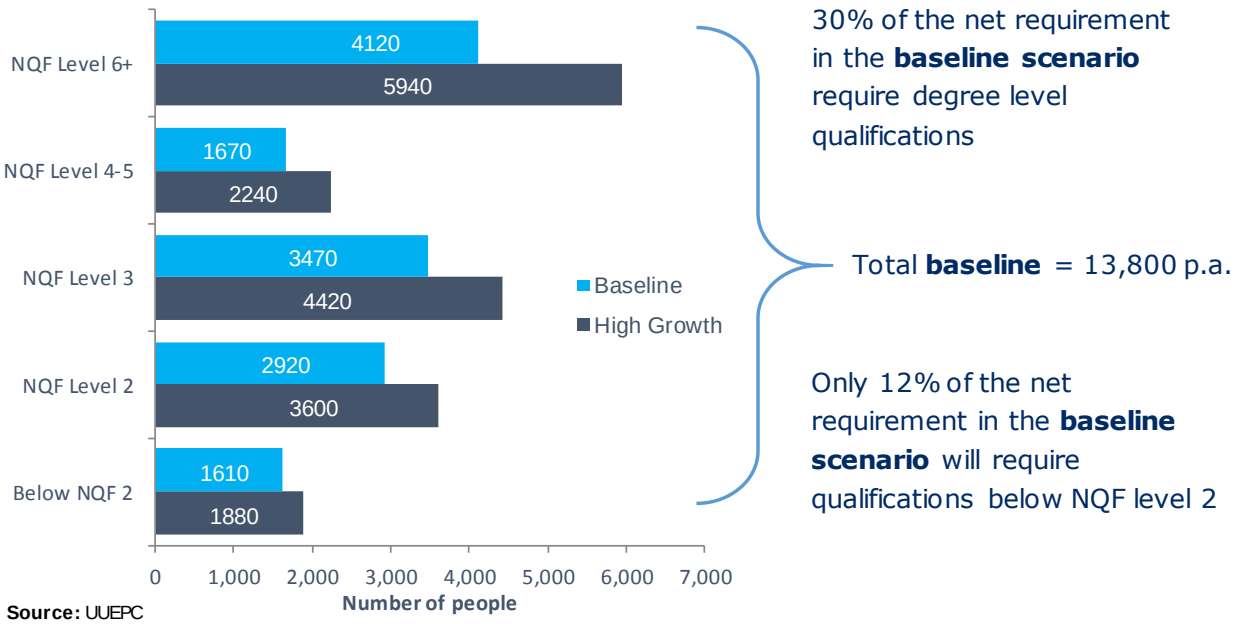


Source: UUEPC

The demand for qualifications

8. The figure below provides an overview of the demand for skills disaggregated by the highest level of formal qualification according to the NQF classification associated with the UUEPC's high growth and baseline scenarios.

Figure A3: Average annual net requirement for skills, baseline versus high growth scenario's, BCR (2017-27)



Source: UUEPC

Note: Figures may not sum due to rounding

9. **The profile of skills demand across the two scenarios is relatively similar.** For example, under the baseline scenario 30% of the net requirement is associated with qualifications at NQF level 6+, compared to 33% in the high growth scenario. However,

in absolute terms there are 1,820 fewer people demanded at NQF level 6+ under the baseline scenario.

10. Similarly, although the proportions of people demanded with low level skills (below NQF level 2) are relatively similar under the baseline and high growth scenarios (12% and 10% respectively), **the absolute number of people demanded is 14% lower in the baseline scenario**.

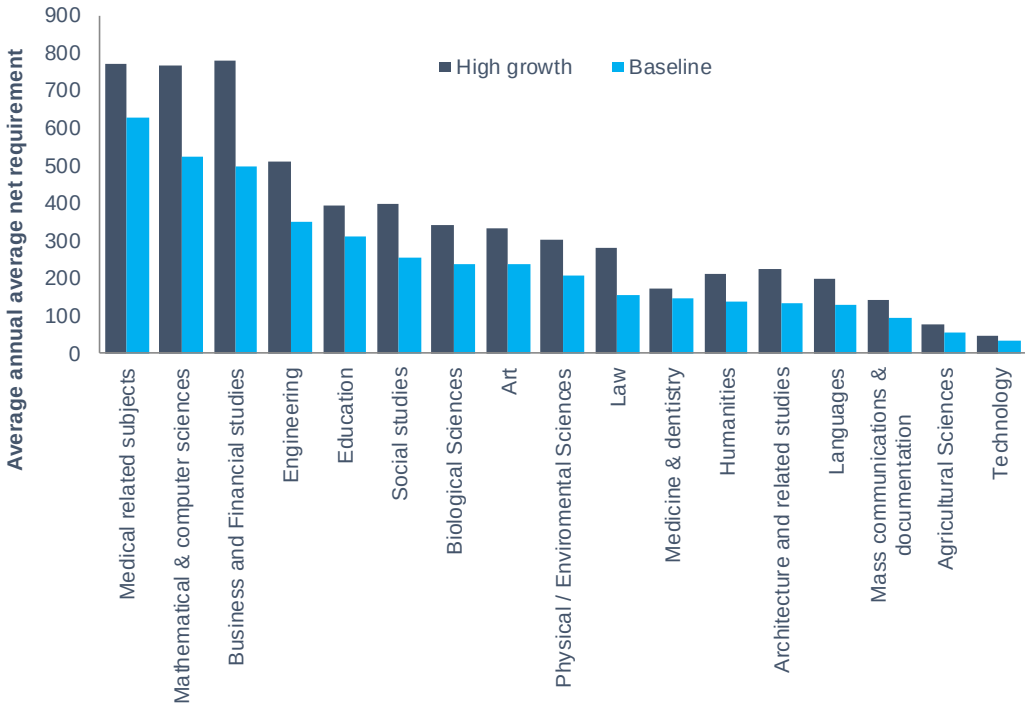
Subjects in demand

11. Using UUEPC's skills forecasting model it is possible to provide an indication of the subjects demanded in high skill occupations under baseline conditions.

NQF level 6+ (undergraduate and above)

12. Under baseline conditions, over the next decade **the largest subject in-demand for undergraduate degree programmes and above is medical and related subjects** at 630 persons per annum, representing 15% of the NQF level 6+ demand. However, compared to the high growth scenario the absolute number of people demanded from medical and related degrees is 23% lower.

Figure A4: Average annual net requirement for NQF level 6+ by subject (1 digit JACS) by BCR (2017-27)



Source: UUEPC

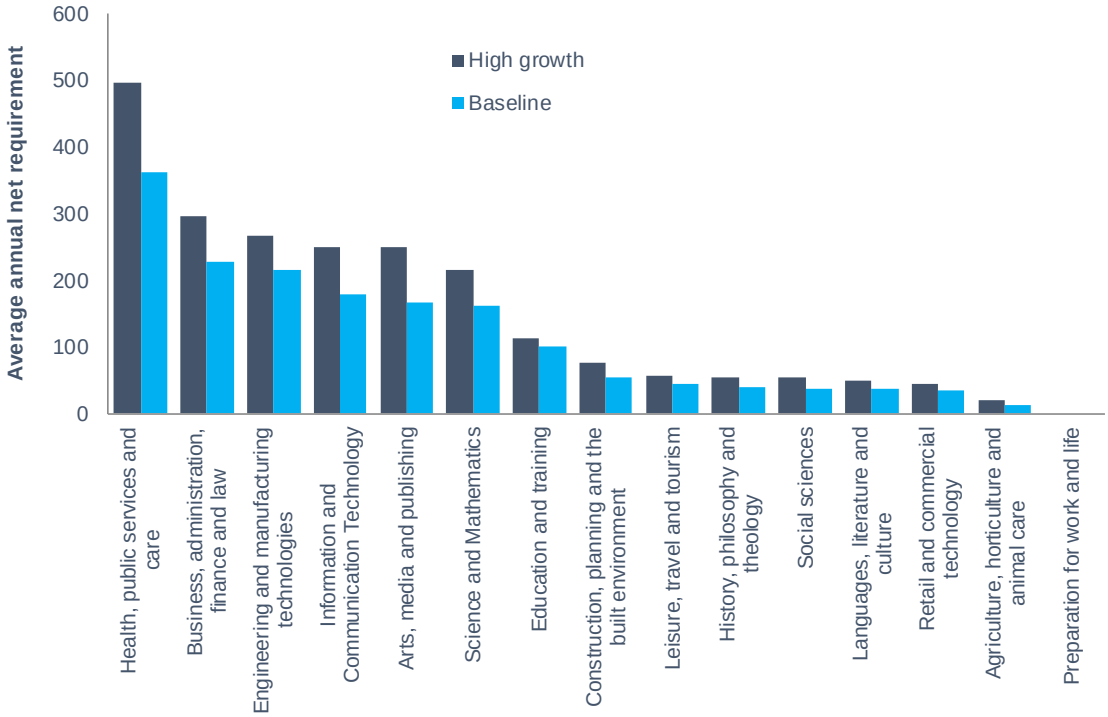
13. The remaining structure of the demand for NQF level 6+ subjects under the baseline scenario is: mathematical and computer sciences (13%);business and administrative studies (12%); engineering (8%); education (7%) social studies (6%); and others (38%).

NQF level 4-5 (Sub-degree level)

14. The figure below summarises the subject profile of demand for NQF level 4-5 qualifications in BCR.

15. Under baseline conditions, over the next decade **the largest subject in-demand for sub-degree programmes at NQF level 4-5 is health, public services and care** at 360 persons per annum, representing 22% of the NQF level 4-5 demand. This is relatively similar to the high growth scenario as labour demand in the health sector is largely driven by replacement rather than expansion demand.

Figure A5: Average annual net requirement for NQF level 4-5 by subject (1 digit SSA), BCR (2017-27)



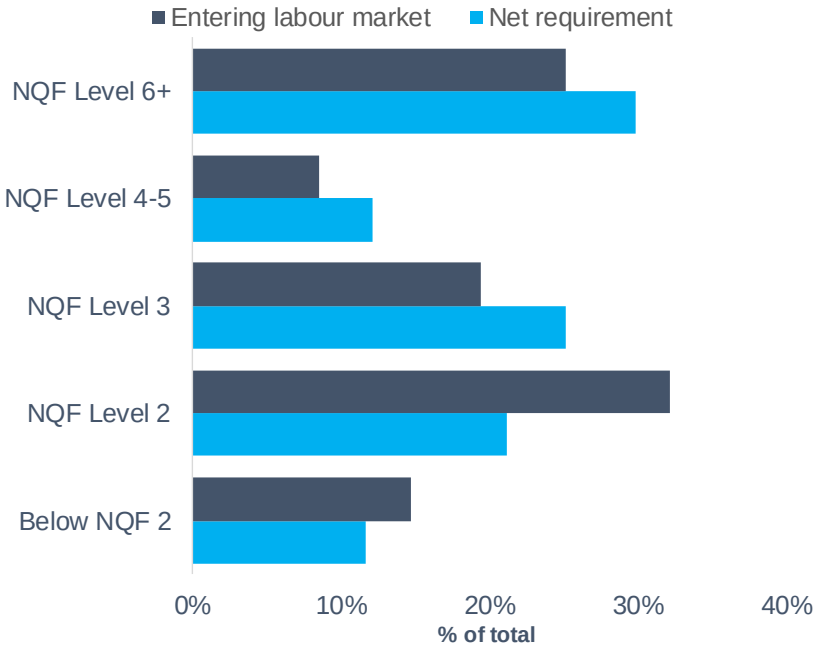
Source: UUEPC

16. The remaining structure of the demand for NQF level 4-5 subjects is: business, administration, finance and law (14%); engineering and manufacturing technologies (13%); information and communication technology (11%); art, media and publishing (10%); science and mathematics (10%); and others (21%).

Demand and supply balances

17. The figure below presents the distribution of BCR residents entering the labour market and the net requirement under the baseline scenario.

Figure A6: Net requirement vs skills profile of labour market entrants, BCR, 2017-2027



Source: UUEPC

18. Areas of misalignment appear to be an oversupply **of low-level skills at NQF level 2 and below**. Although it should be noted that under the baseline with less rapid growth in skill intensive sectors such as information and communication and professional services lower skills make up a larger proportion of demand. Therefore the misalignment is relatively lower when benchmarked against the high growth scenario.

19. There is also a **shortage of mid-level skills at NQF level 3-5**. This is largely a supply driven issue with so few people studying qualifications at these levels who enter the labour market. The majority of people who gain qualifications at these levels proceed to further study. This results in a deficit of people with mid-level skills participating in the labour market.

20. Under lower growth baseline conditions the gap between the number people entering the labour market with qualifications at NQF level 6+ and people demanded at NQF level 6+ as part of the net requirement reduces by 3 percentage points, relative to the high growth scenario.

21. It is important to note that the above figure is simply measuring the distribution of the supply of BCR residents versus the distribution of demand. **In absolute terms there are 1,800 less graduates demanded in the baseline compared to the high growth scenario**.

22. In considering the subject profile of the NQF level 6+ net requirement there are some imbalances. The largest gaps exist in maths, computing, engineering and technology (-

14 percentage points). This suggests that **the current subject mix is currently out of sync with the subject demand for high-level skills under the baseline scenario**.

Table A2: Current qualifiers vs future net requirement for NQF level 6+ by subject, BCR (2015, 2017-2027)

Subjects	% distribution of BCR qualifiers (2015)	% distribution of net requirement (2017 - 2027)	p.p. difference
Medicine, denistry, subjects allied to medicine	17%	14%	2%
Biological, veterinary, agricultural & physical sciences	11%	12%	-1%
Maths, computing, engineering and technology	10%	24%	-14%
Social studies & law	19%	11%	8%
Business, administration, mass communication and documentation	15%	16%	-1%
All other disciplines	28%	22%	6%

Source: NINIS & UUEPC

23. The subject groupings for sub-regional HE qualifiers are too broad to draw firm conclusions. However there does appear to be an abundance of generalist degrees in the 'social studies and law' and 'other' subject categories in comparison to a relative shortage of STEM related subjects.

Interpreting the baseline

24. Although it is advised to plan the supply of skills based on the economy policy wants to achieve, it is also important to be cognisant of the potential for oversupply. If the BCR economy were to experience a recession, stagnant job growth or a sector shock there is a potential for an oversupply of graduates. Therefore, it is **important to have measures in place to mitigate the potential for an oversupply of skills** (e.g. conversion courses for workers made redundant etc.).

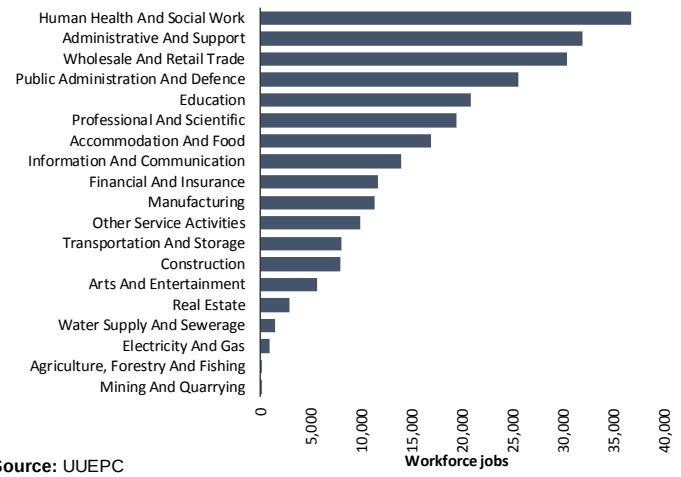
Annex B: Data caveats

The caveats listed below are important to consider when interpreting the skills forecasting results from the empirical model used:

- **A challenging process** - Estimation of replacement demand involves an examination of the flows into and out of the labour market using complex LFS analysis. This type of flows analysis from official data is only possible at NI-level (and even at this level is limited by sample size). NI replacement demand assumptions are applied to BCR. We do not expect significant differences from the NI pattern across local areas.
- **Labour market equilibrium -** By drawing assumptions based on past data we are implicitly assuming that the labour market is largely in equilibrium. In other words, it assumes the skill patterns in past data reflect the actual skill demand from employers. It may be the case that in past years inflows into the labour market from education have not always had a high-level formal qualification but that is not to say employers would not have liked or benefited from better educational standards. The opposite may also be true where employers recruit persons with higher qualifications than actually necessary, e.g. graduates in non-graduate jobs. In either of these two cases, using past data would not be a precise reflection of actual employer demand.
- **Labour market equilibrium –** Similar to the above point, the subject mix within sectors in past data may not always reflect employer demand. Employers in NI may be taking more general business and administration degrees when they would ideally like more advanced STEM subjects (say taking a business studies graduate when they might have preferred a maths graduate). Similarly, a STEM graduate may be working in a particular sector where the employer did not necessarily demand STEM graduate, rather a high quality graduate regardless of the degree subject.
- **Formal qualification measures such as NQF levels 1-8 do not cover all aspects of skill needs** – A limitation of this type of empirical skills forecasting exercise is that it only focuses on formal NQF qualifications and not other 'softer' key skill requirements such as experience, work readiness and generic skills.. This is because these other skills need types lack comprehensive and robust data and are therefore difficult to quantify in a modelling framework.
- **Data disclosure –** The Census of Employment is the main source of employment data used relating to employment within BCR. In some years data is suppressed due to disclosure. In these instances we have quantified the suppressed data using estimation techniques.
- **A lack of sub-regional supply side metrics -** In sub-regions no data exists relating to the destination of leavers from FE and HE. Therefore, any data relating to the destination of leavers from HE or FE is based on NI level assumptions.
- **Comparability to NI skills barometer –** The NI Skills Barometer converts workforce jobs to employment in people based terms using a jobs to people ratio from the 2011 Census. This ratio is applied to all future years, then data is scaled to NI totals from more recent years using data from the LFS. For BCR no people based employment data on a workplace basis exists post 2011. Therefore, in BCR jobs to people ratios from the 2011 Census are applied to all years. The BCR skills study has been undertaken in a different time period to the NI Skill Barometer. Therefore, the results from the two studies are based on separate economic scenario's.

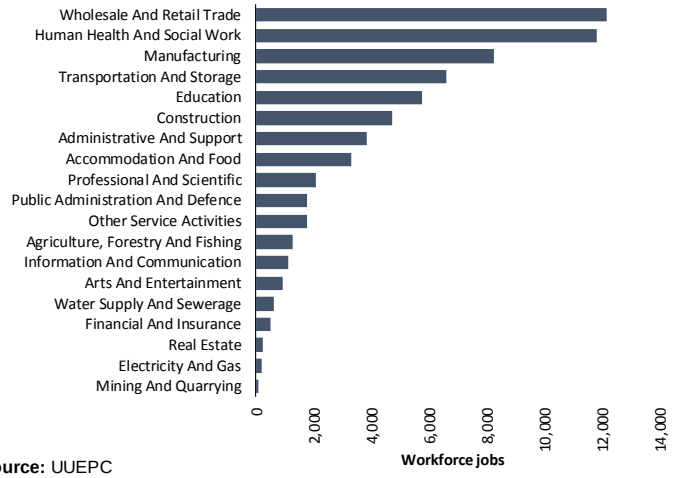
Annex C1: Structure of workforce jobs within BCR LGDs

Belfast: Structure of workforce jobs by sector (1-digit SIC), 2017



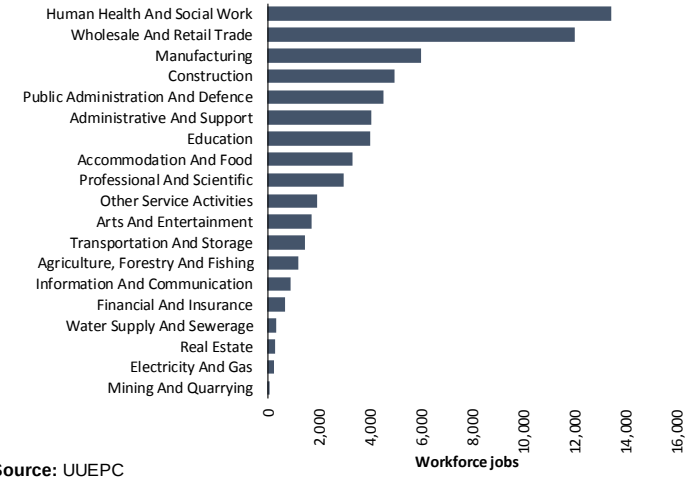
Source: UUEPC

Antrim and Newtownabbey: Structure of workforce jobs by sector (1-digit SIC), 2017



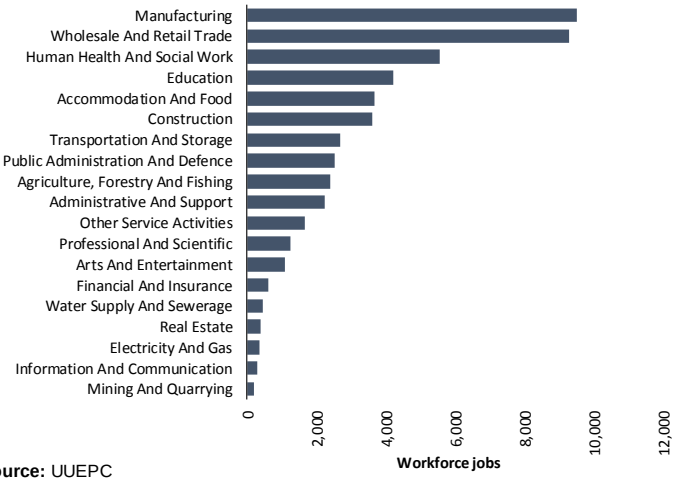
Source: UUEPC

Lisburn and Castlereagh: Structure of workforce jobs by sector (1-digit SIC), 2017



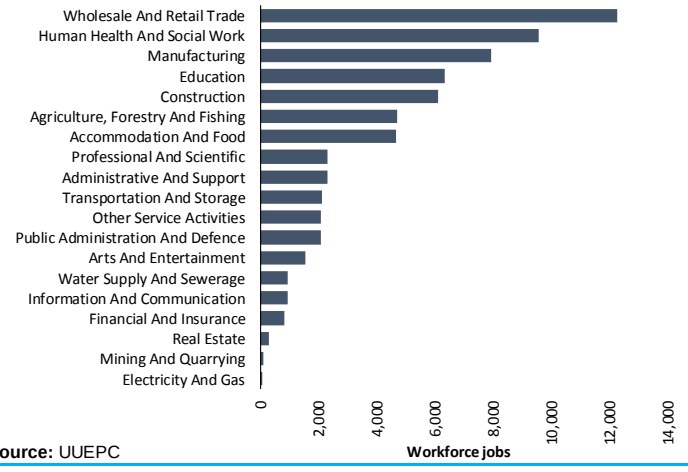
Source: UUEPC

Mid and East Antrim: Structure of workforce jobs by sector (1-digit SIC), 2017



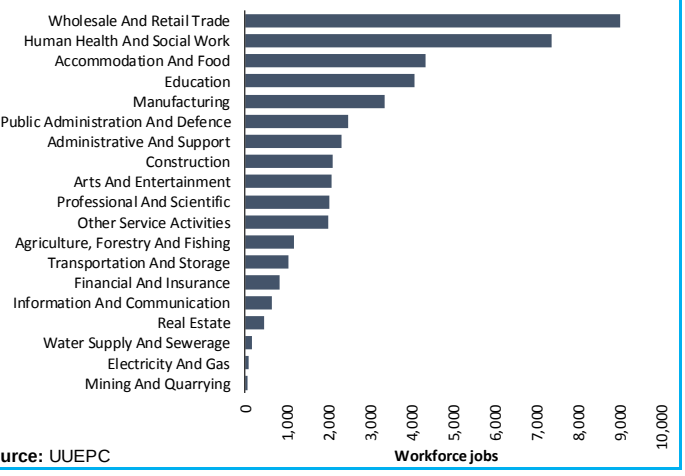
Source: UUEPC

Newry, Mourne and Down: Structure of workforce jobs by sector (1-digit SIC), 2017



Source: UUEPC

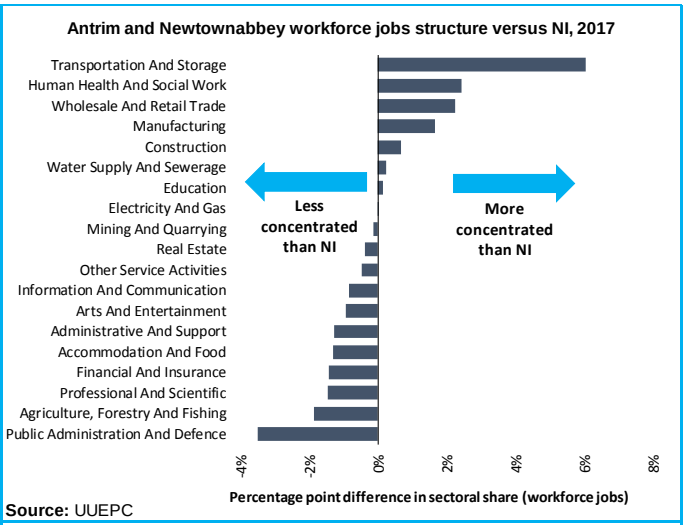
Ards and North Down: Structure of workforce jobs by sector (1-digit SIC), 2017



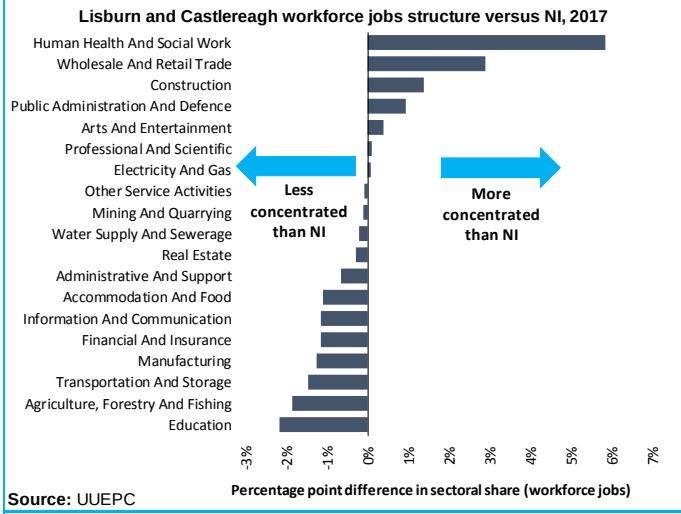
Source: UUEPC

Annex C2: Structure of workforce jobs in BCR LGDs relative to NI

Source: UUEPC



Source: UUEPC



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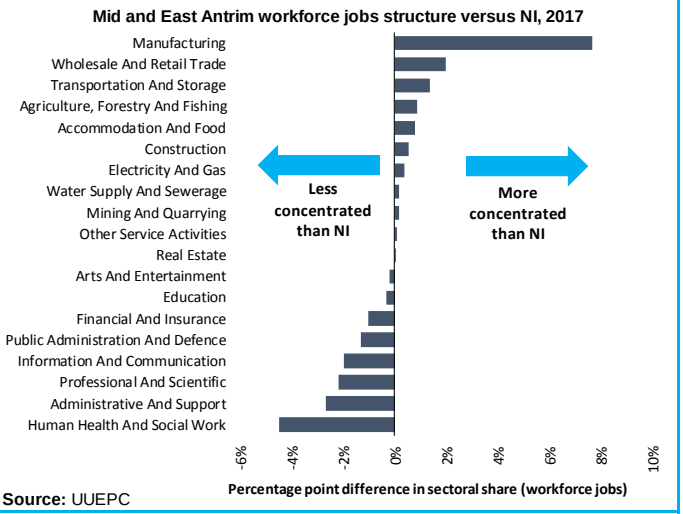

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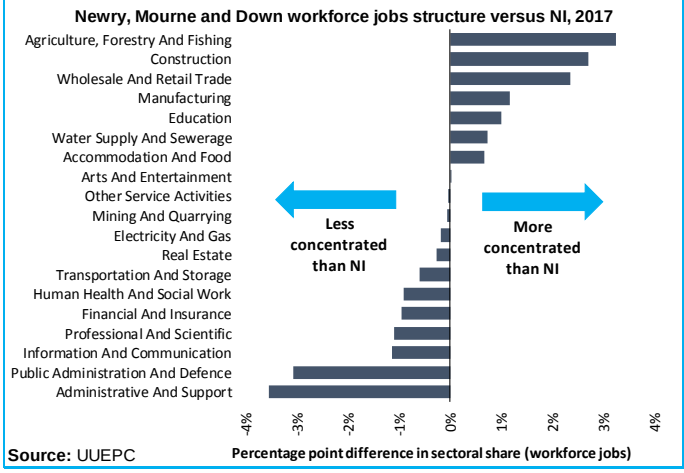
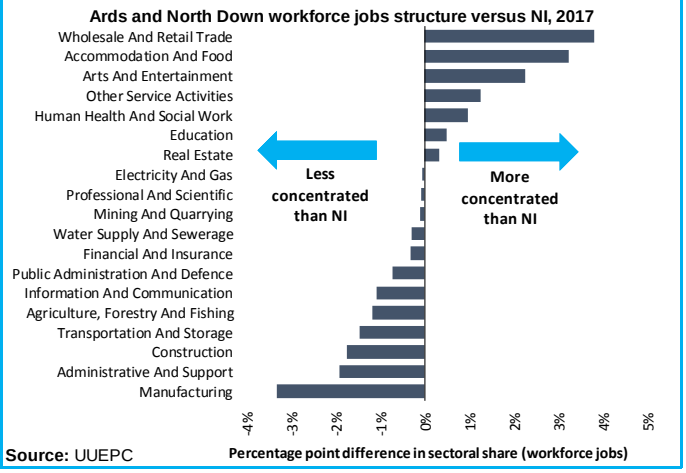


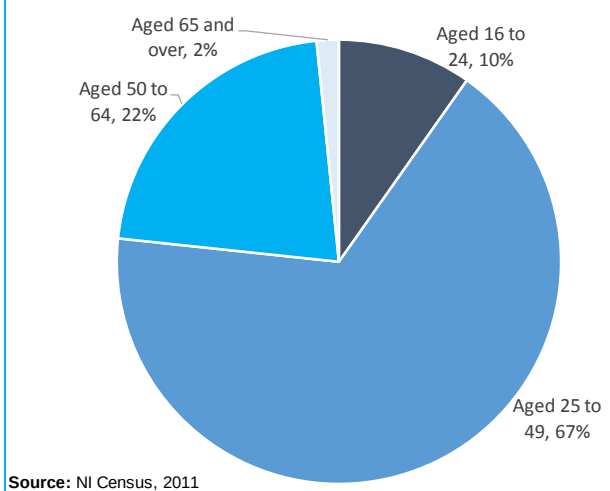
Source: UUEPC



Source: UUEPC

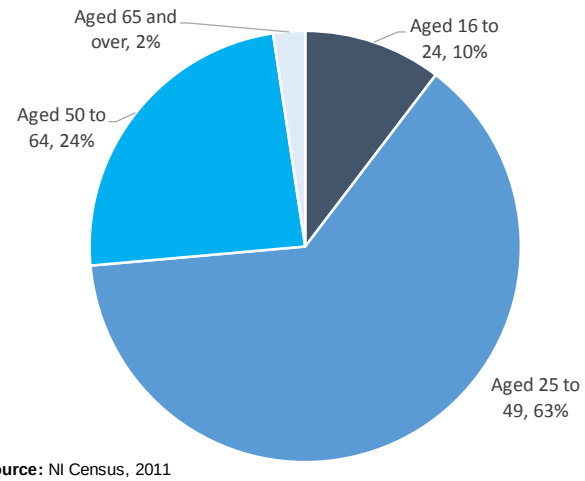
Annex D1: Age structure of workplace employment in BCR LGDs

Belfast employment by age (excluding students), 2011



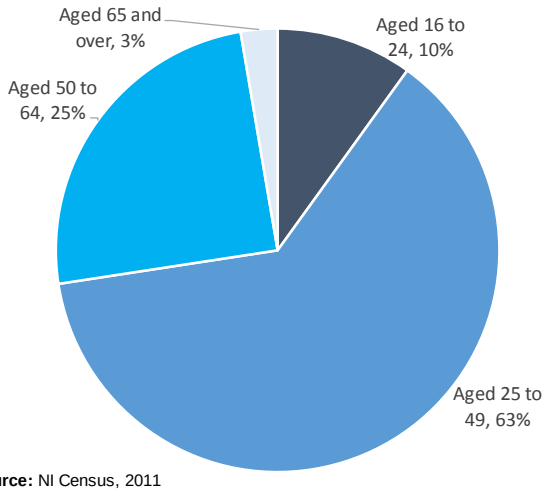
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Antrim and Newtownabbey employment by age (excluding students), 2011



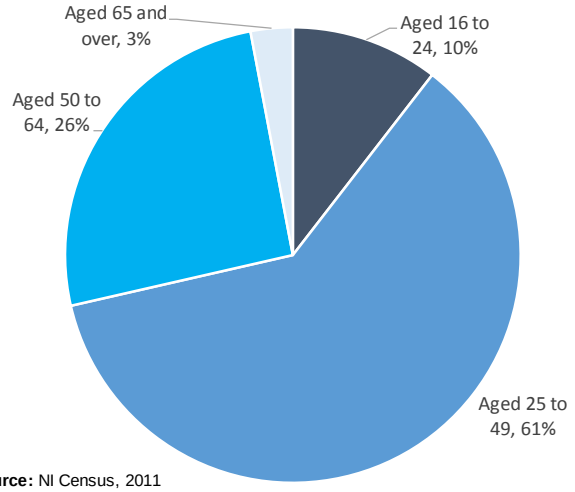
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Lisburn and Castlereagh employment by age (excluding students), 2011



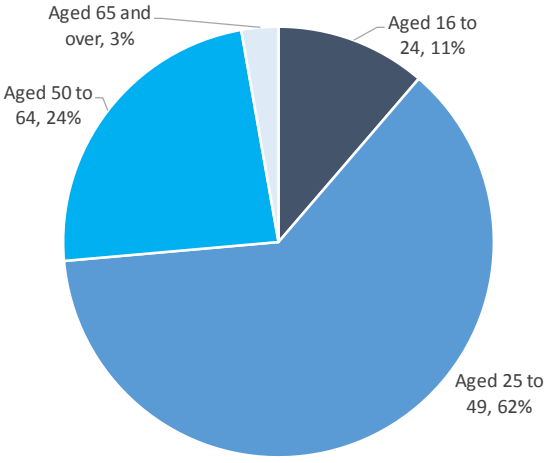
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Mid and East Antrim employment by age (excluding students), 2011



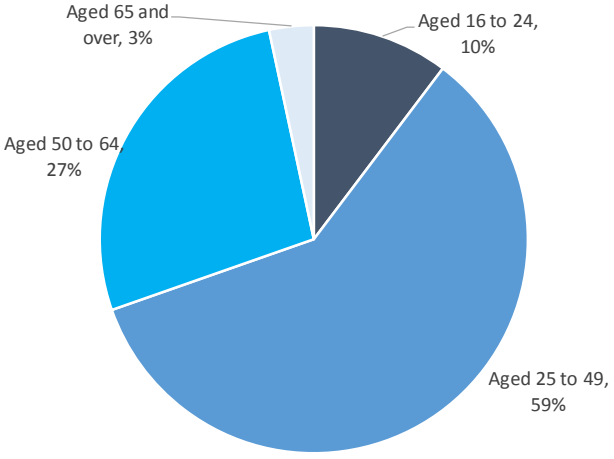
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Newry, Mourne and Down employment by age (excluding students), 2011



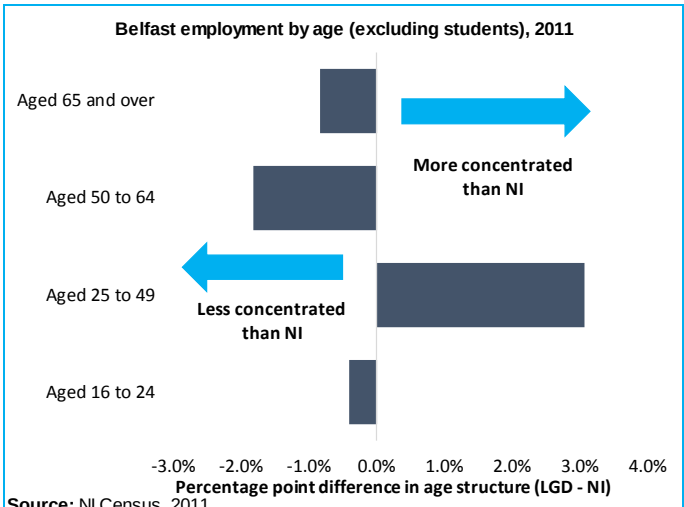
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Ards and North Down employment by age (excluding students), 2011

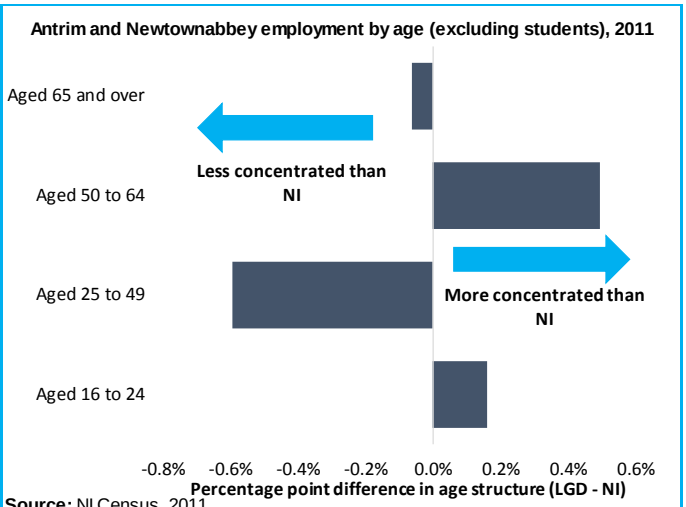


Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

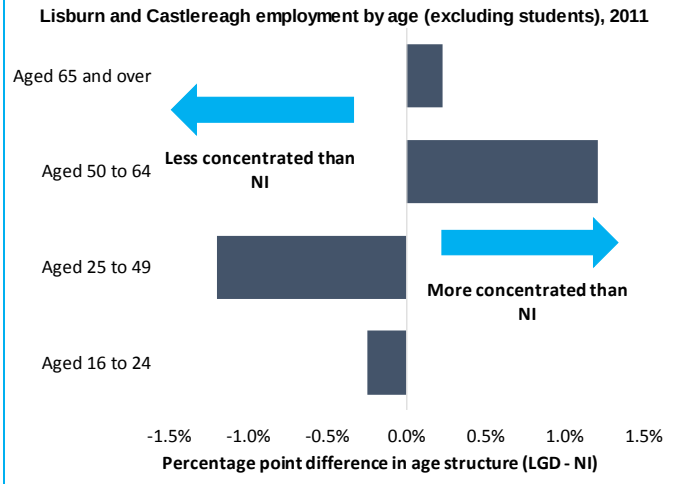
Annex D2: Age structure of workplace jobs in BCR LGDs relative to NI



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students



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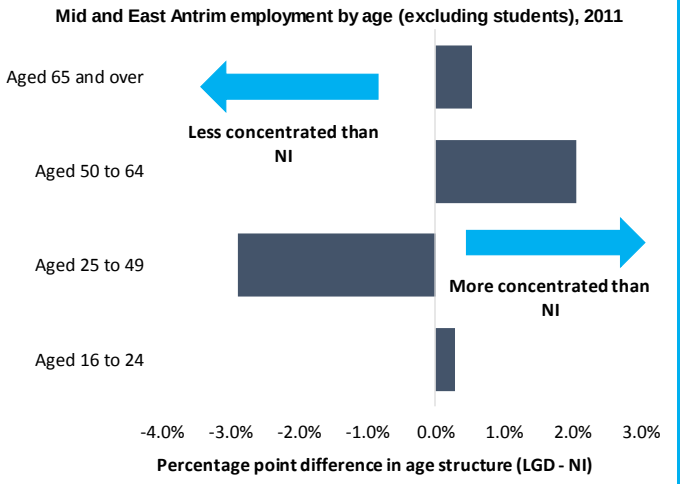
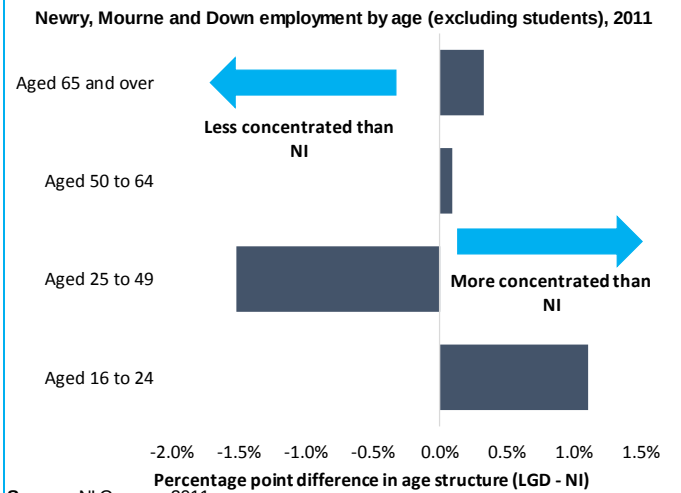
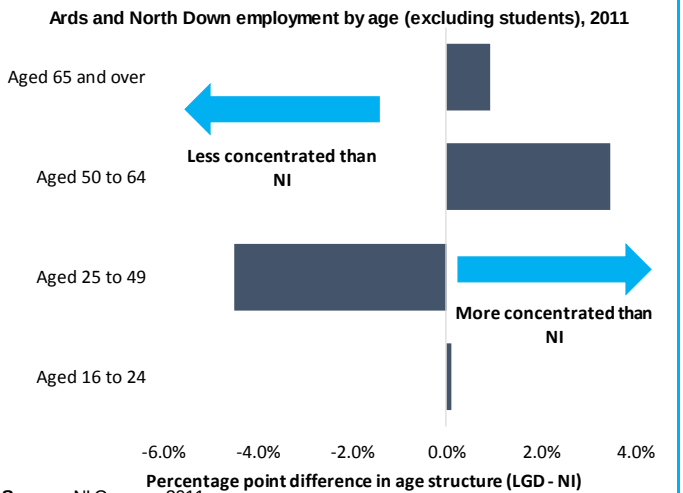


Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students



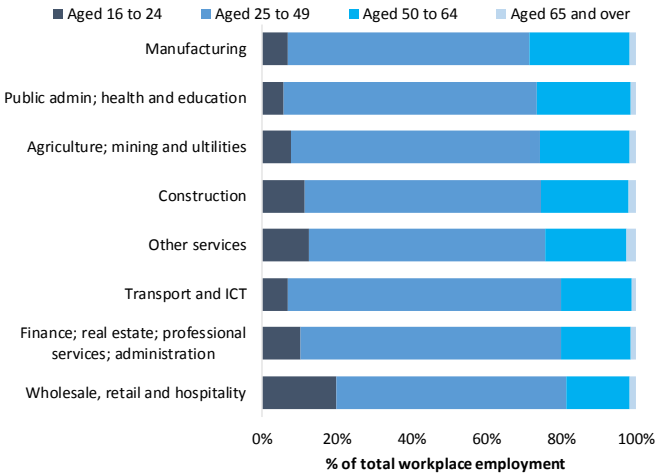
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

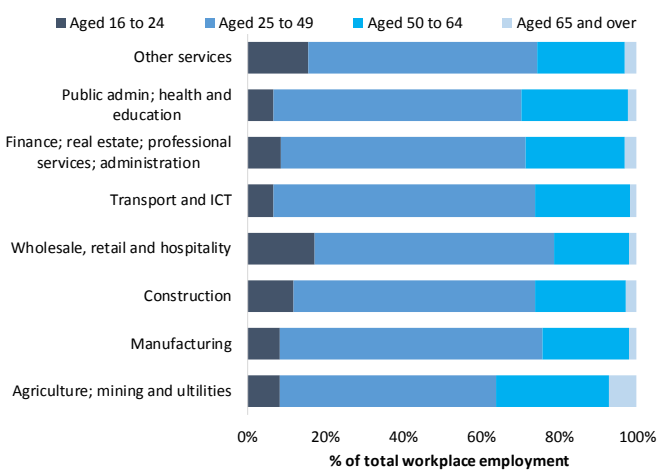
Annex D3: Age structure of workplace employment by sector within BCR LGDs

Belfast workplace age structure by sector (excluding students), 2011



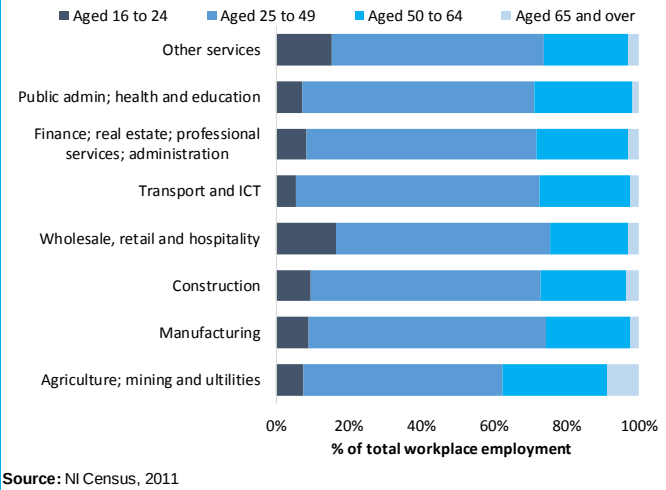
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Antrim and Newtownabbey workplace age structure by sector (excluding students), 2011



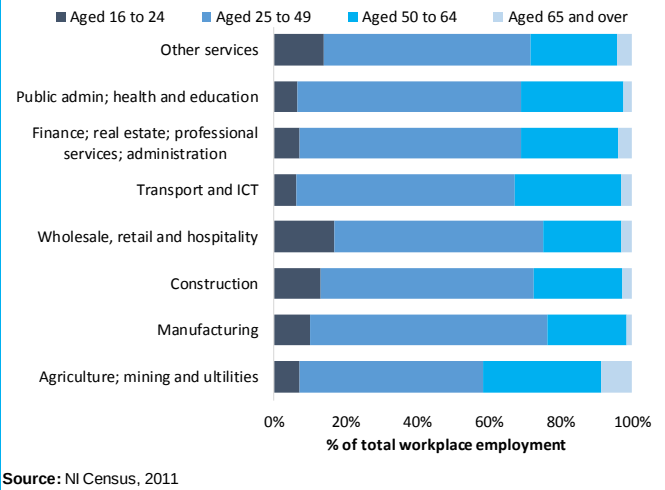
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Lisburn and Castlereagh workplace age structure by sector (excluding students), 2011



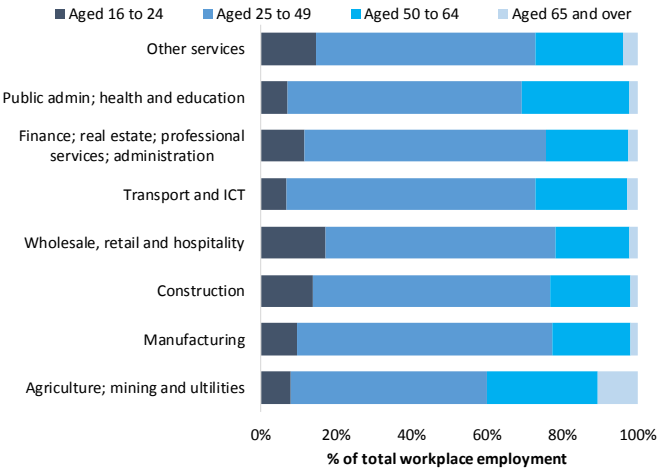
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Mid and East Antrim workplace age structure by sector (excluding students), 2011



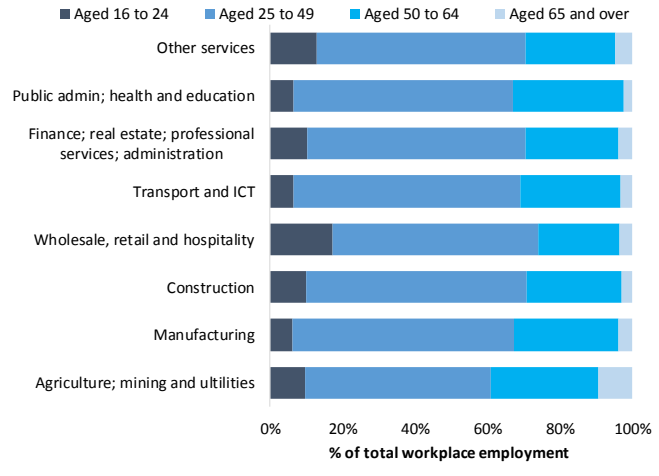
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Newry, Mourne and Down workplace age structure by sector (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

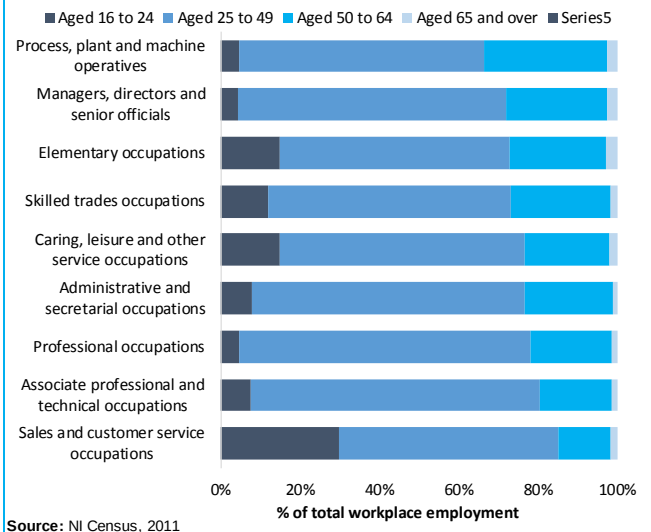
Ards and North Down workplace age structure by sector (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

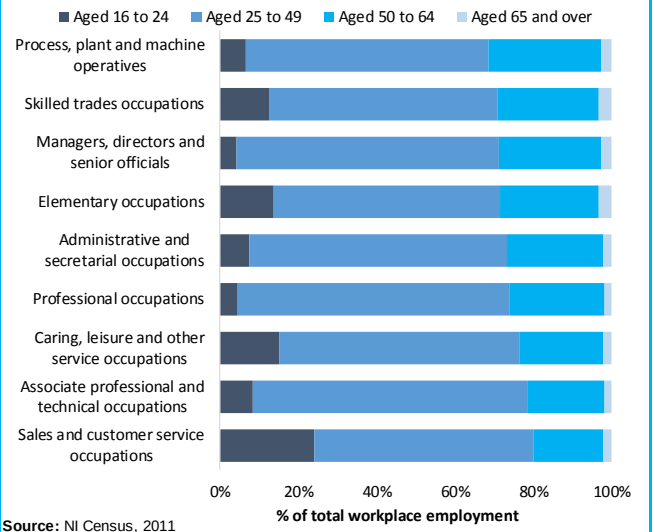
Annex D4: Age structure of workplace employment by occupation in BCR LGDs

Belfast workplace age structure by occupation (excluding students), 2011



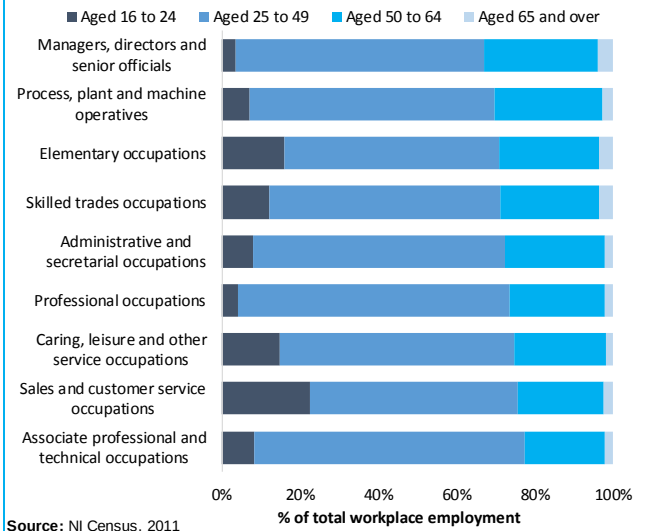
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Antrim and Newtownabbey workplace age structure by occupation (excluding students), 2011



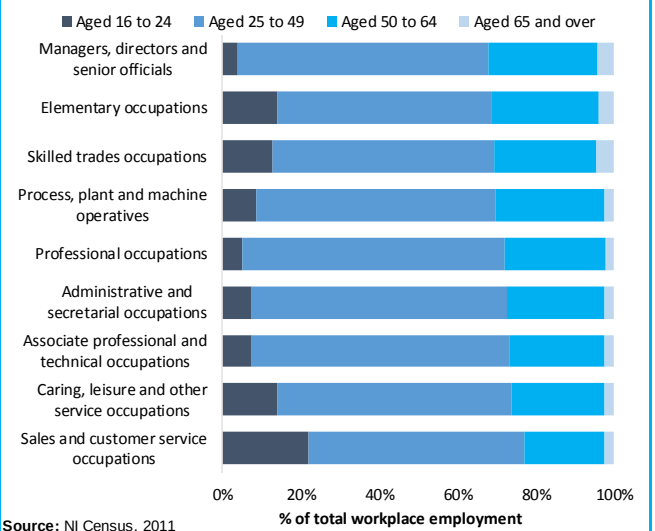
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Lisburn and Castlereagh workplace age structure by occupation (excluding students), 2011



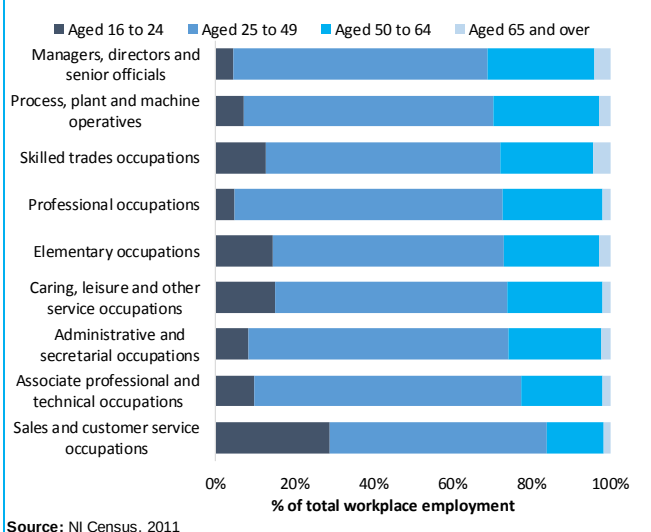
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Mid and East Antrim workplace age structure by occupation (excluding students), 2011



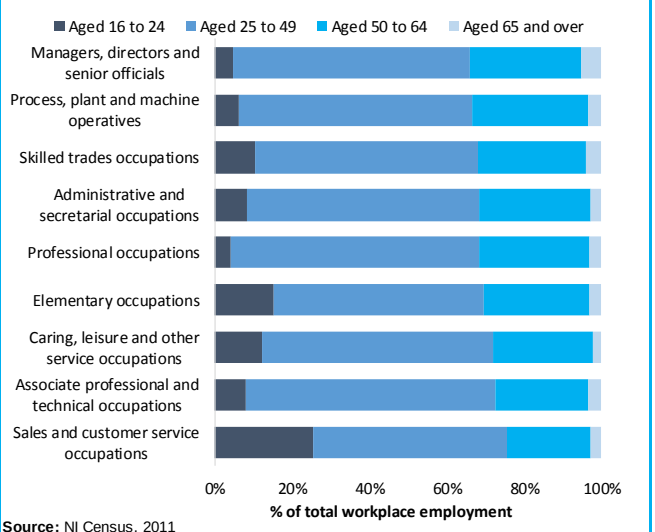
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Newry, Mourne and Down workplace age structure by occupation (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

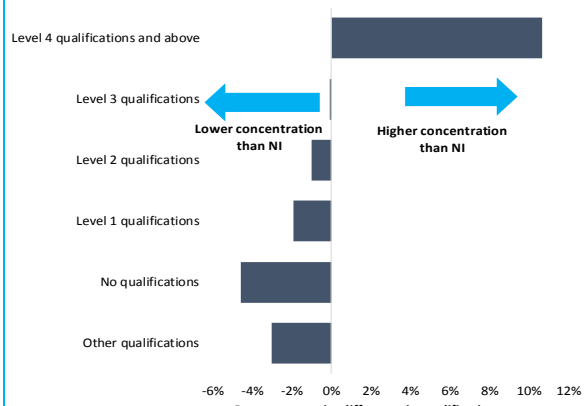
Ards and North Down workplace age structure by occupation (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

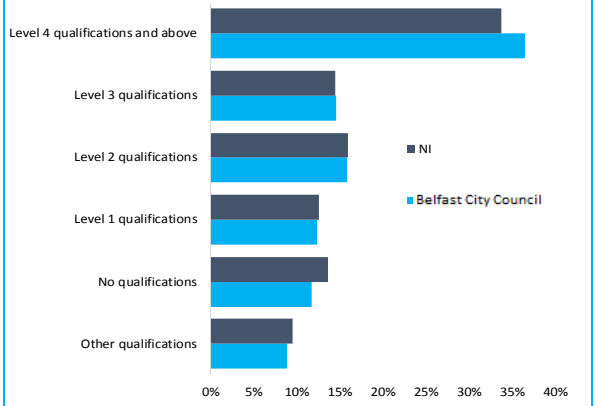
Annex E1: Belfast City Council workplace skills structure

Percentage point difference in skill structure of employed (excluding students), Belfast versus NI, 2011



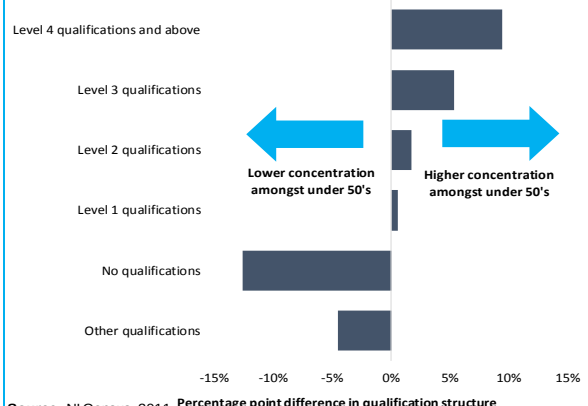
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proportion of employed persons by skill structure (excluding students), Belfast versus NI, 2011



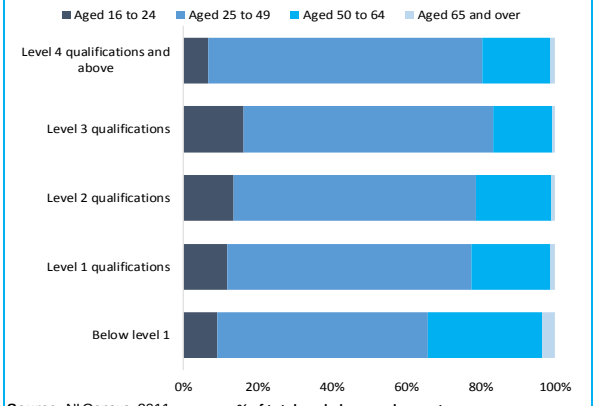
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed under 50's and employed over 50's (excluding students), 2011



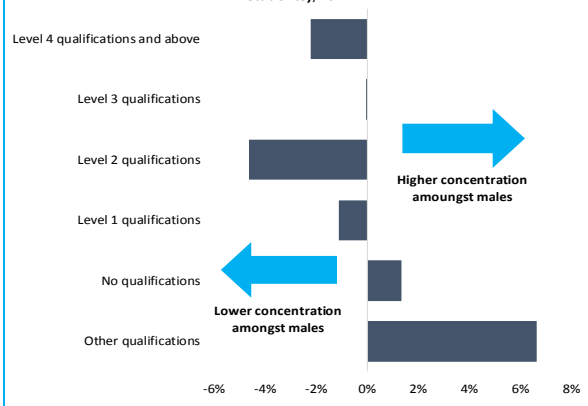
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Age compostion of skill category profile of employed, 2011



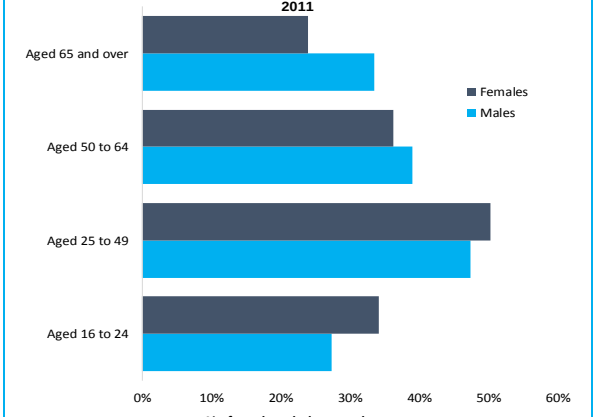
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed males and females (excluding students), 2011



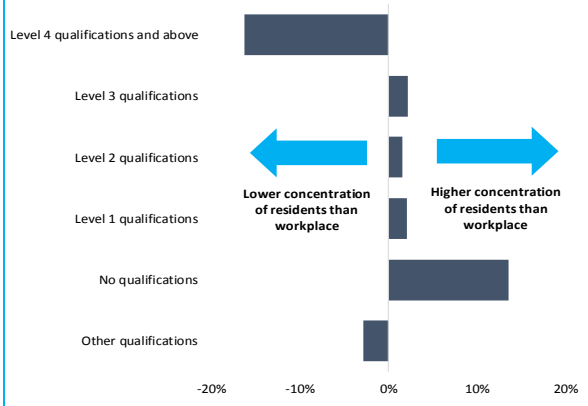
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proprtion of employed people with at least an NQF level 4+ (excluding students), 2011



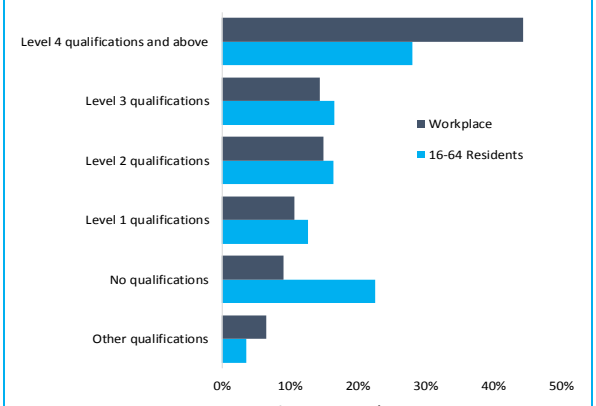
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

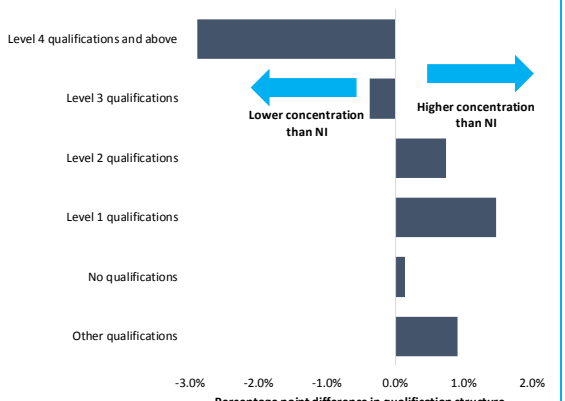
Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

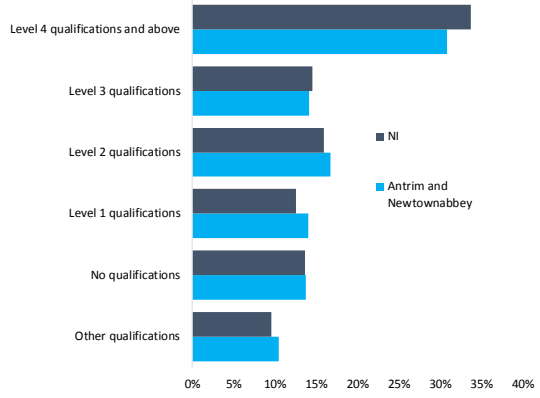
Annex E2: Antrim & Newtownabbey workplace skills

Percentage point difference in skill structure of employed (excluding students), Antrim and Newtownabbey versus NI, 2011



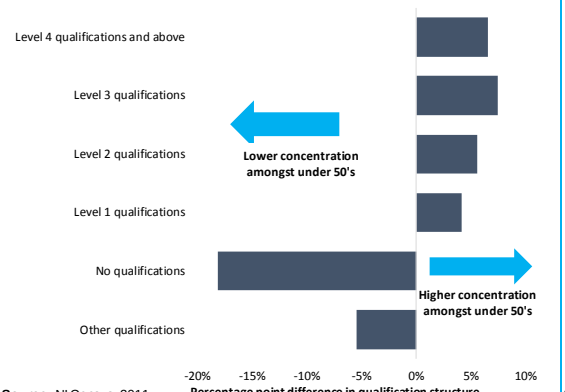
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proportion of employed persons by skill structure (excluding students), Antrim and Newtownabbey versus NI, 2011



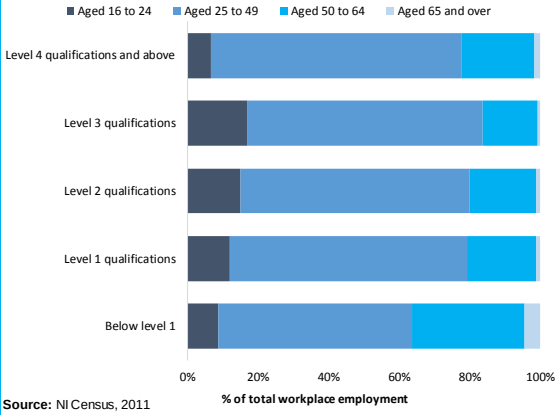
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed under 50's and employed over 50's (excluding students), 2011



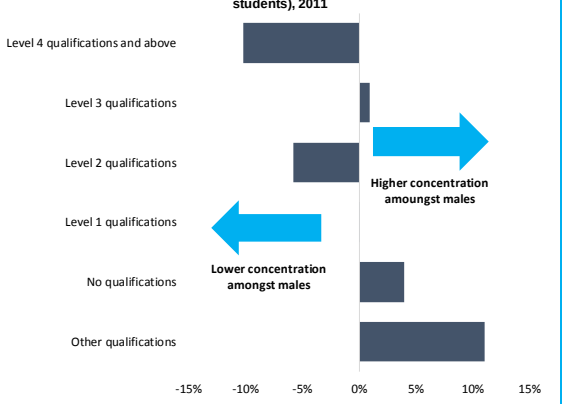
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Age compostion of skill category profile of employed, 2011



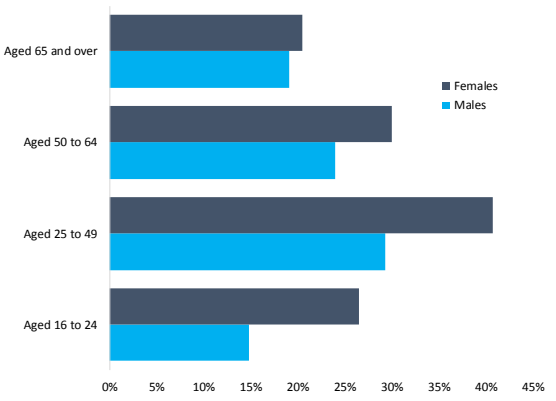
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed males and females (excluding students), 2011



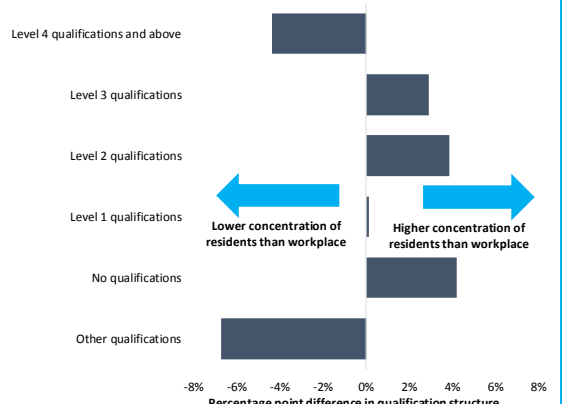
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proprtion of employed people with at least an NQF level 4+ (excluding students), 2011



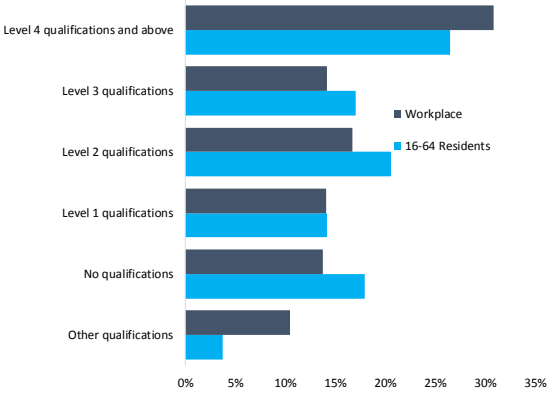
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

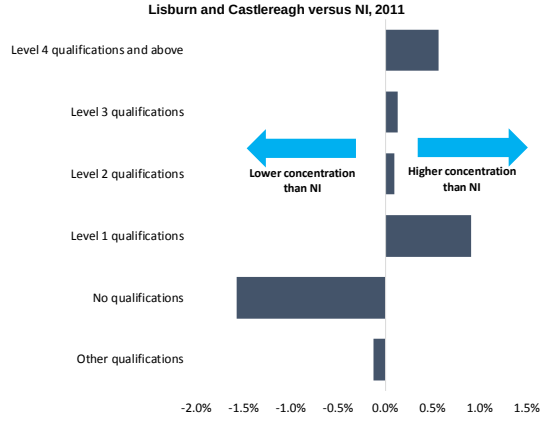
Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

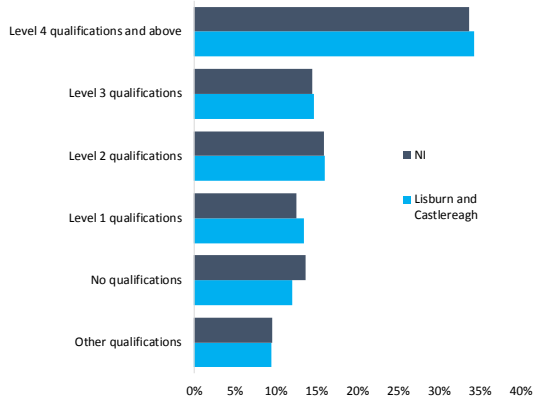
Annex E3: Lisburn & Castlereagh workplace skills

Percentage point difference in skill structure of employed (excluding students), Lisburn and Castlereagh versus NI, 2011



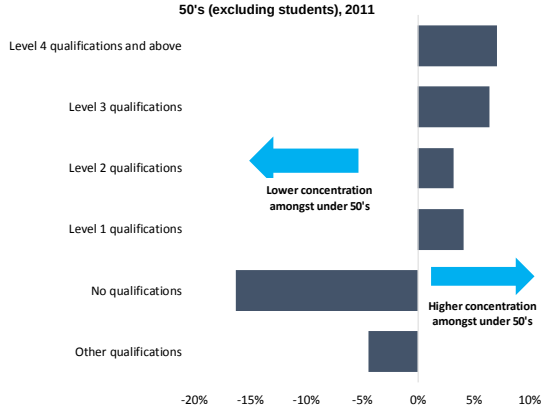
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proportion of employed persons by skill structure (excluding students), Lisburn and Castlereagh versus NI, 2011



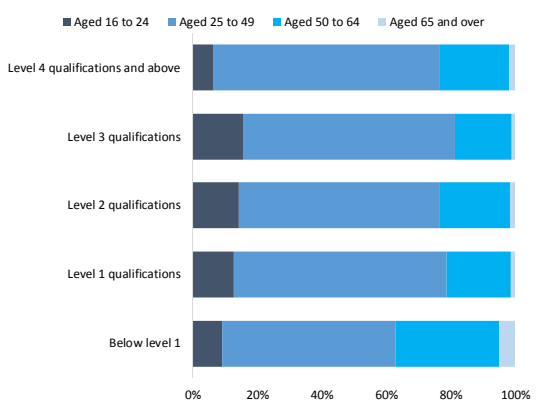
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed under 50's and employed over 50's (excluding students), 2011



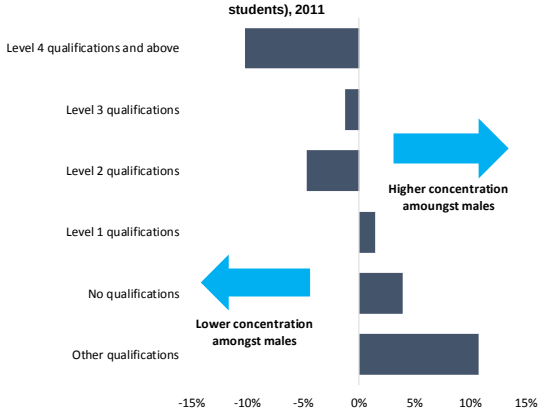
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Age compostion of skill category profile of employed, 2011



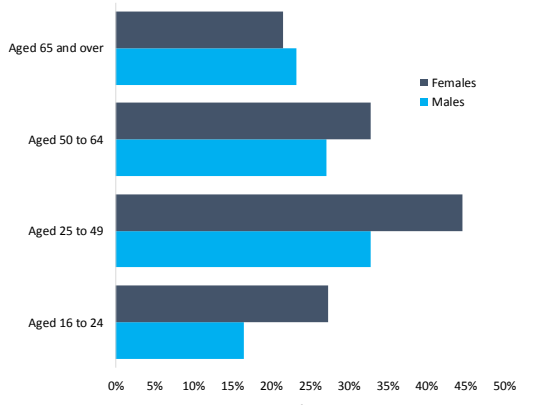
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed males and females (excluding students), 2011



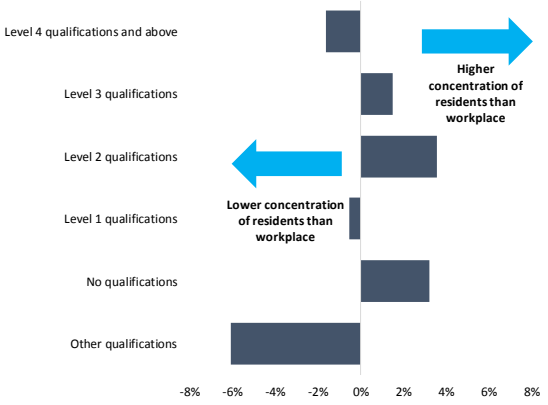
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proprtion of employed people with at least an NQF level 4+ (excluding students), 2011



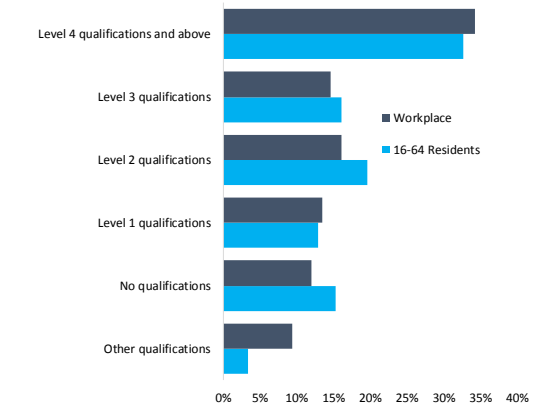
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

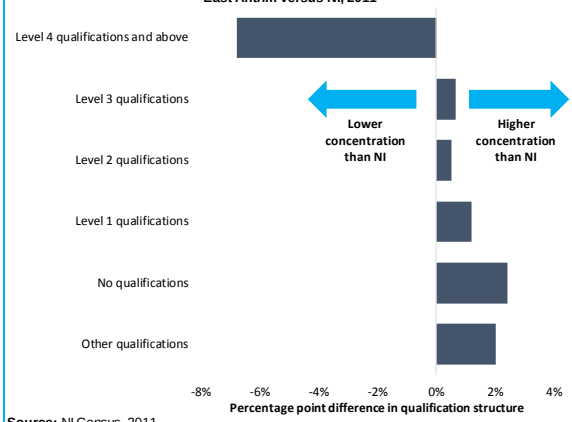
Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

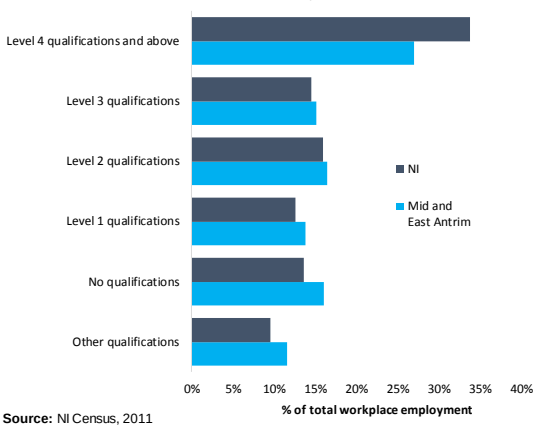
Annex E4: Mid & East Antrim workplace skills

Percentage point difference in skill structure of employed (excluding students), Mid and East Antrim versus NI, 2011



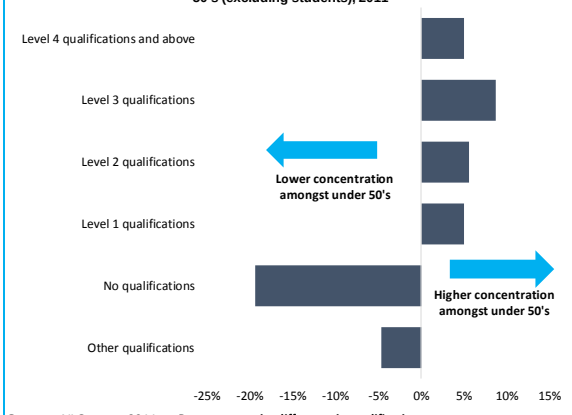
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proportion of employed persons by skill structure (excluding students), Mid and East Antrim versus NI, 2011



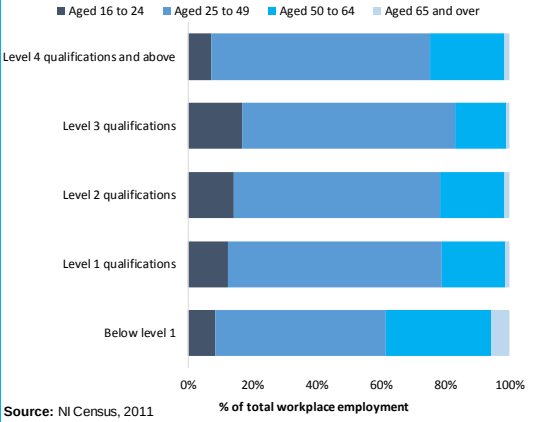
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed under 50's and employed over 50's (excluding students), 2011



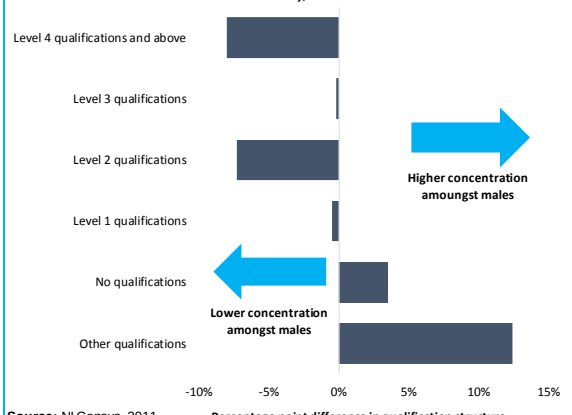
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Age compostion of skill category profile of employed, 2011



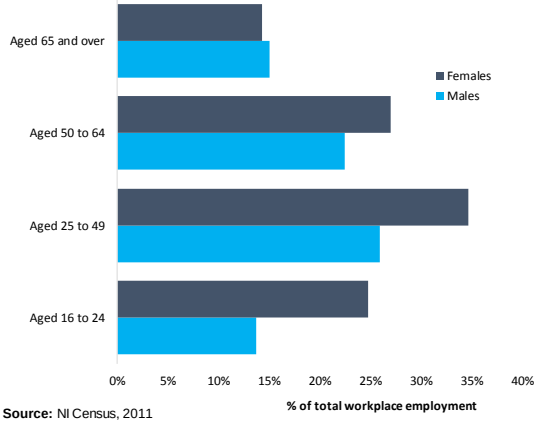
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed males and females (excluding students), 2011



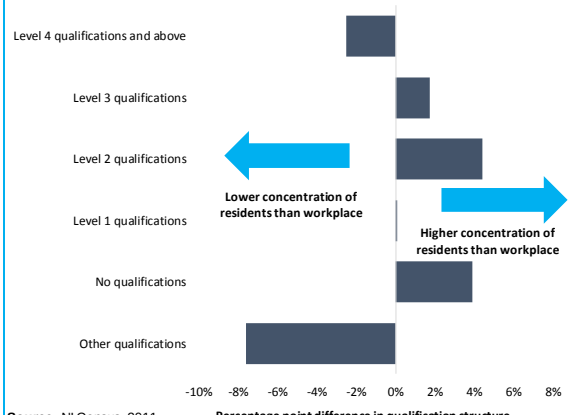
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proprtion of employed people with at least an NQF level 4+ (excluding students), 2011



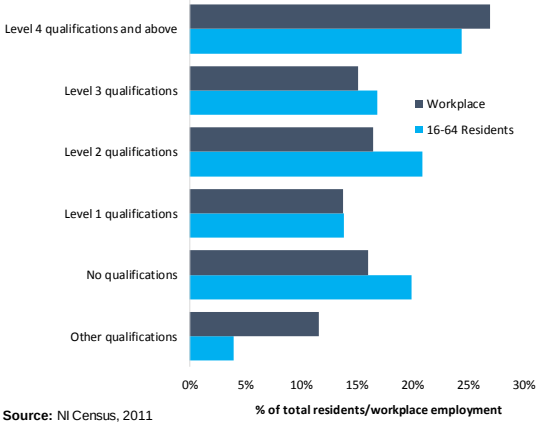
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

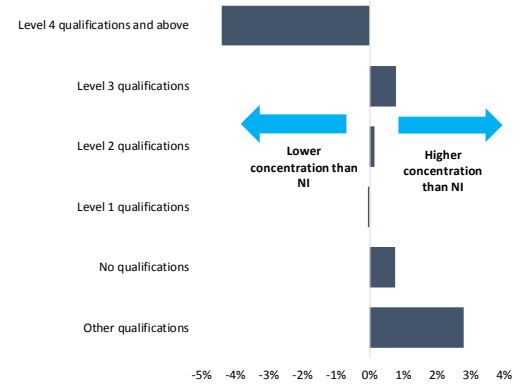
Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

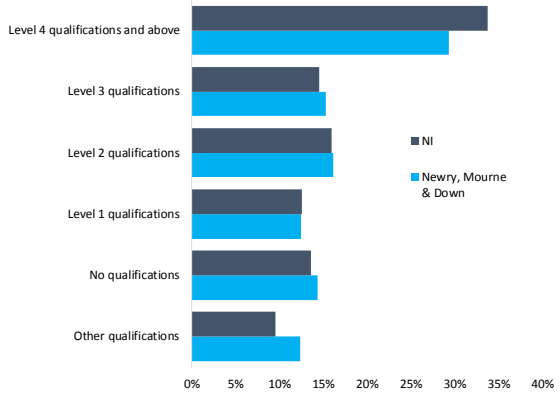
Annex E5: Newry Mourne & Down workplace skills

Percentage point difference in skill structure of employed (excluding students), Newry Mourne and Down versus NI, 2011



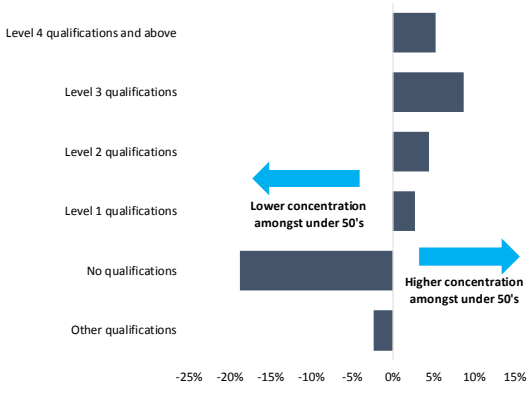
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proportion of employed persons by skill structure (excluding students), Newry Mourne and Down versus NI, 2011



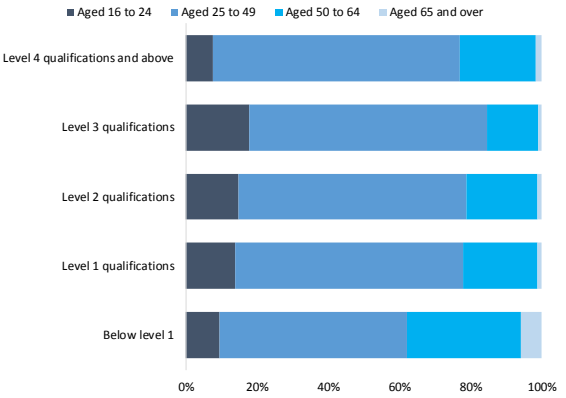
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed under 50's and employed over 50's (excluding students), 2011



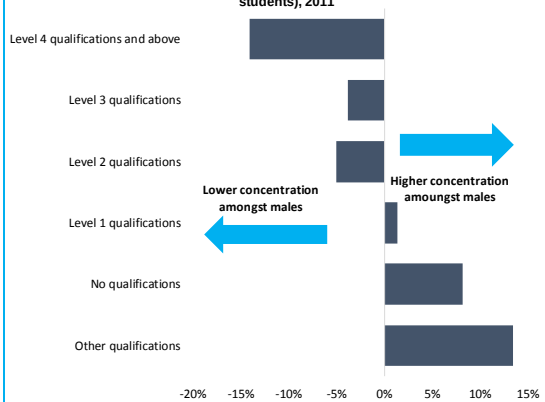
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Age compostion of skill category profile of employed, 2011



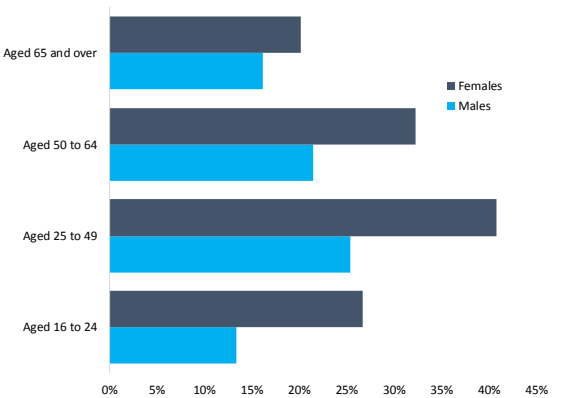
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed males and females (excluding students), 2011



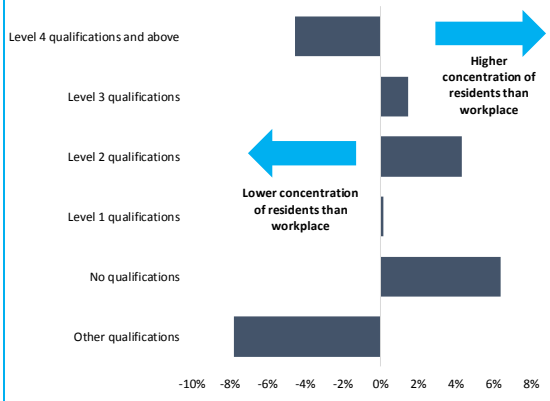
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proprtion of employed people with at least an NQF level 4+ (excluding students), 2011



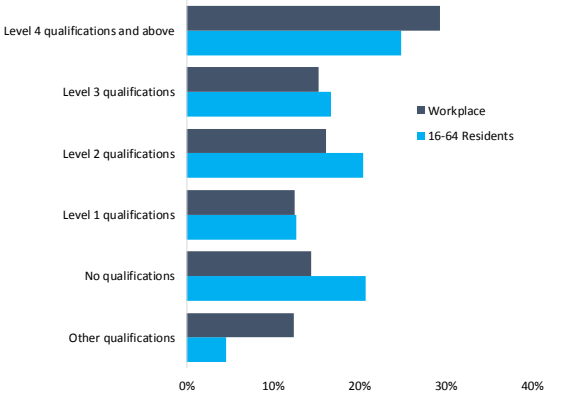
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

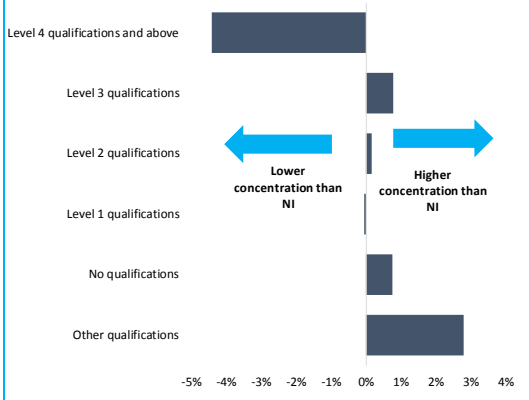
Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

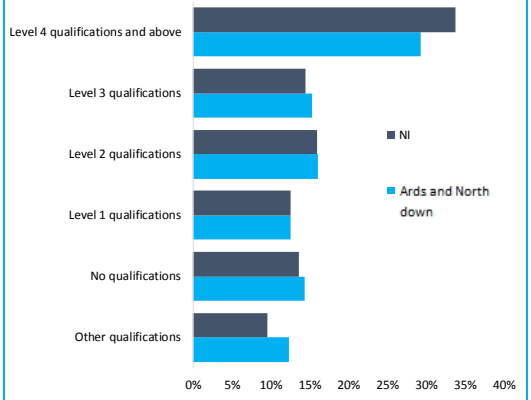
Annex E6: Ards North and Down workplace skills

Percentage point difference in skill structure of employed (excluding students), Ards and North Down versus NI, 2011



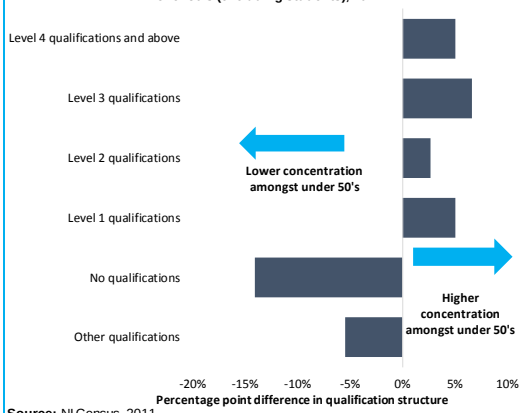
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proportion of employed persons by skill structure (excluding students), Ards and North Down versus NI, 2011



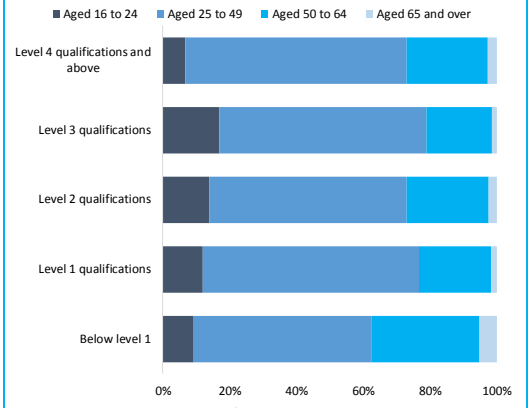
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed under 50's and employed over 50's (excluding students), 2011



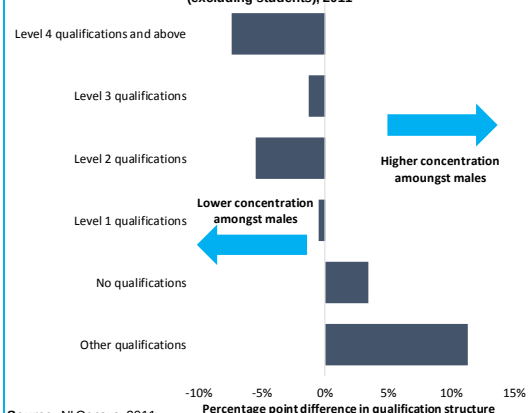
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Age compostion of skill category profile of employed, 2011



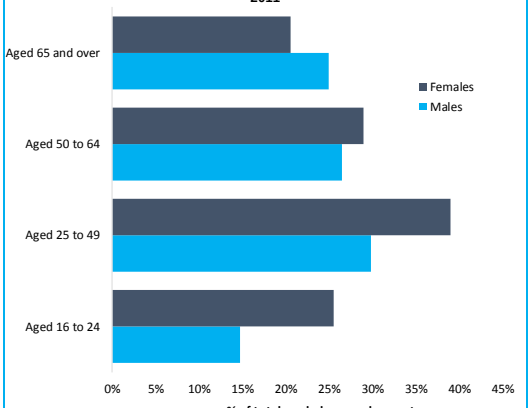
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Percentage point difference in skill profile of employed males and females (excluding students), 2011



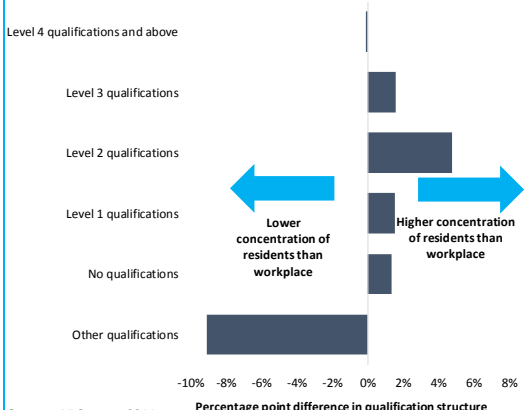
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Proprtion of employed people with at least an NQF level 4+ (excluding students), 2011



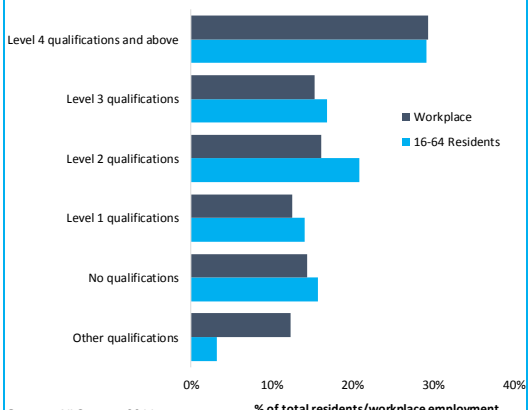
Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

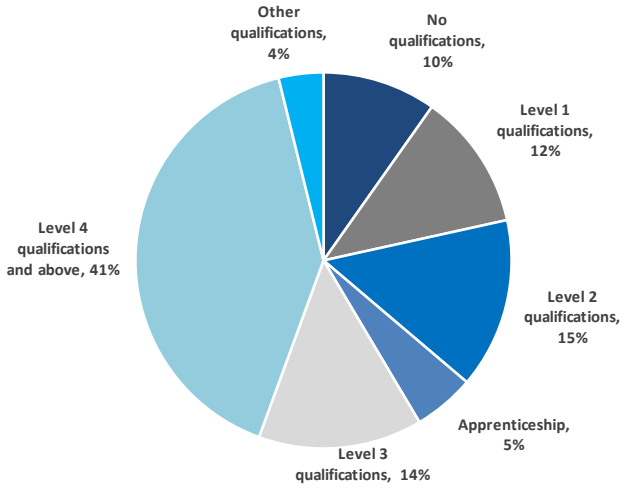
Resident skills profile versus workplace skills profile (excluding students), 2011



Source: NI Census, 2011
Note: Based on those aged 16-74 in employment, excluding students

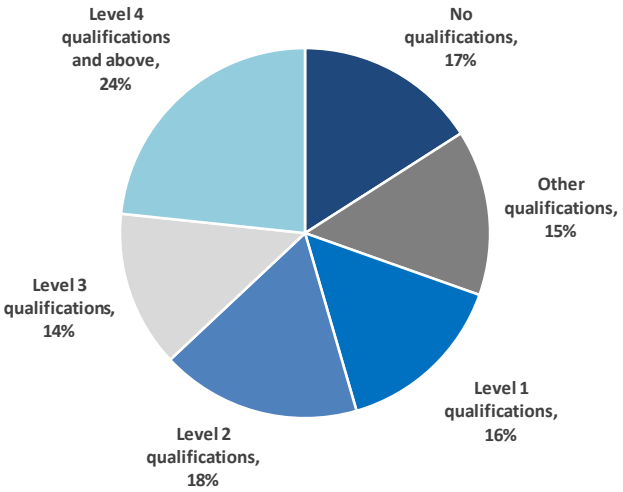
Annex F1: In-commuters versus resident workers skills profile

Highest level of qualification of in-commuters working in Antrim and Newtownabbey (2011)



Source: NI Census, 2011

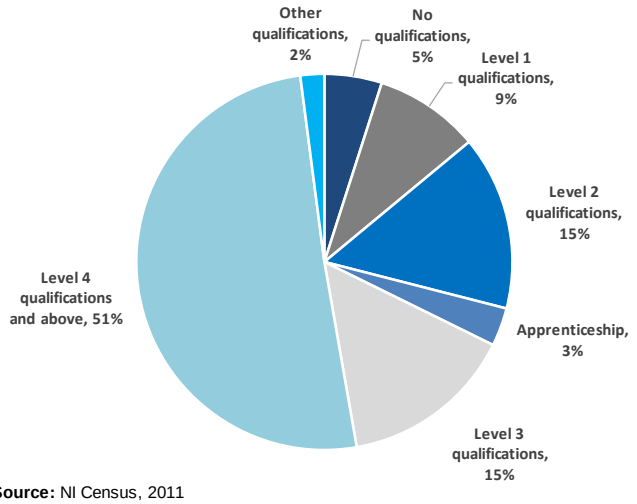
Highest level of qualification of Antrim and Newtownabbey residents working in Antrim and Newtownabbey (2011)



Source: NI Census, 2011

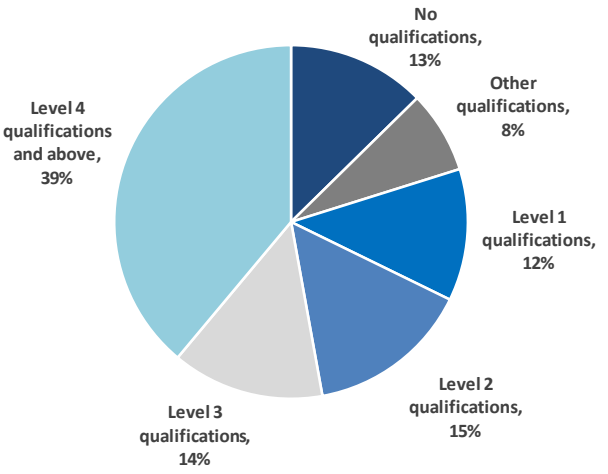
Note: Apprenticeships are included as other qualifications

Highest level of qualification of in-commuters working in Belfast (2011)



Source: NI Census, 2011

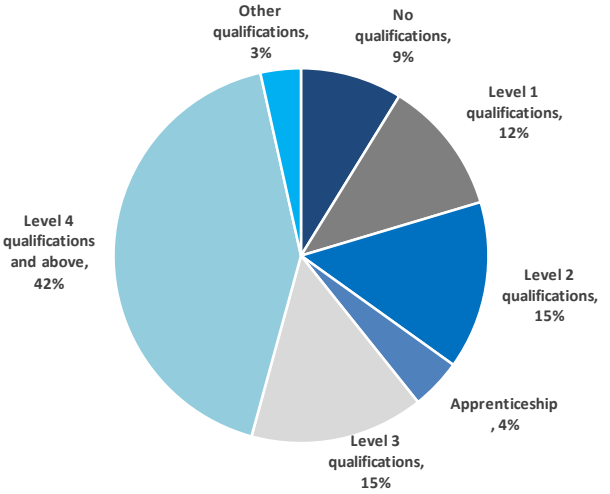
Highest level of qualification of Belfast residents working in Belfast (2011)



Source: NI Census, 2011

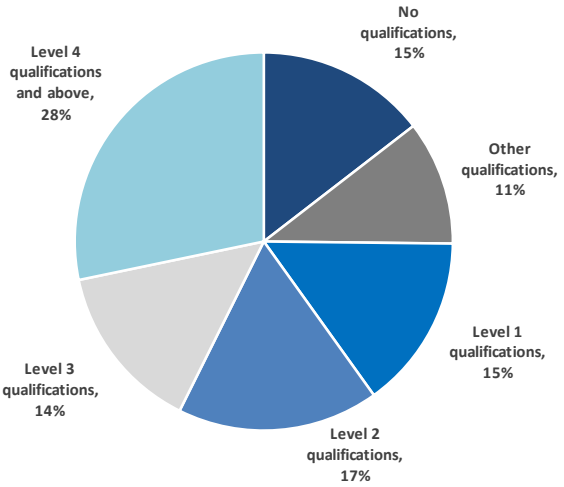
Note: Apprenticeships are included as other qualifications

Highest level of qualification of in-commuters working in Lisburn and Castlereagh (2011)



Source: NI Census, 2011

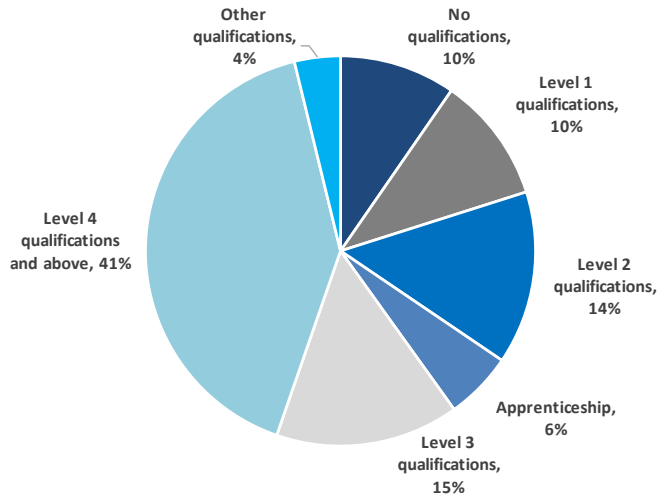
Highest level of qualification of Lisburn and Castlereagh residents working in Lisburn and Castlereagh (2011)



Source: NI Census, 2011

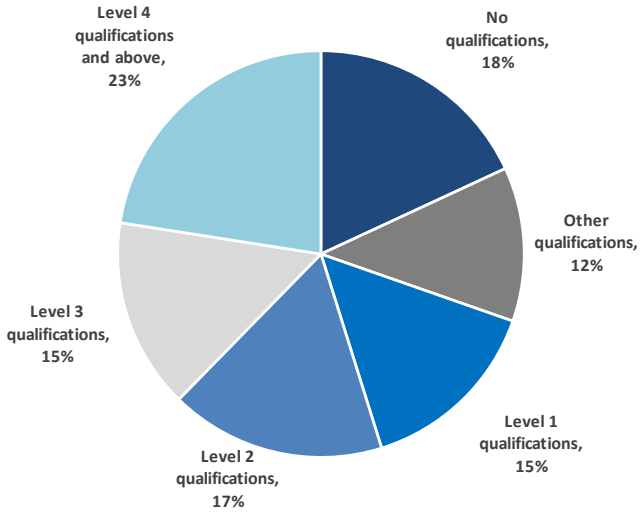
Note: Apprenticeships are included as other qualifications

Highest level of qualification of in-commuters working in Mid and East Antrim (2011)



Source: NI Census, 2011

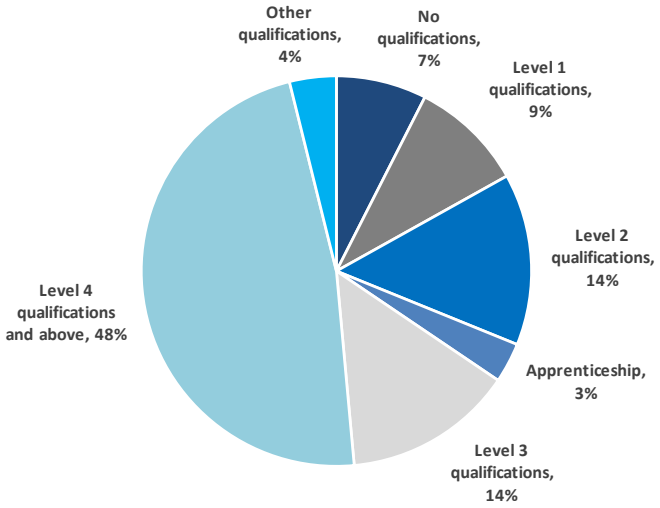
Highest level of qualification of Mid and East Antrim residents working in Mid and East Antrim (2011)



Source: NI Census, 2011

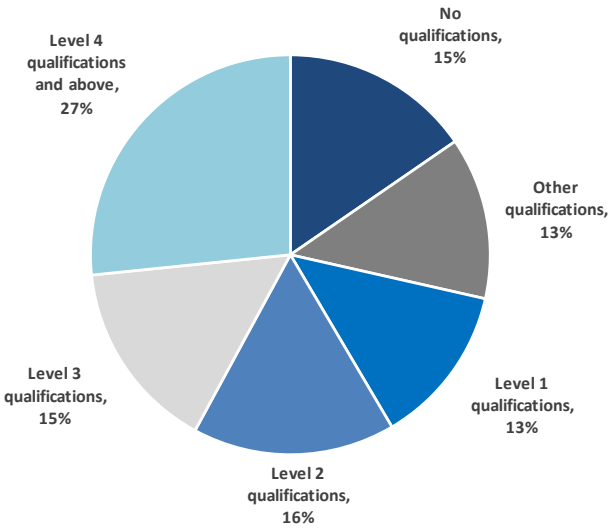
Note: Apprenticeships are included as other qualifications

Highest level of qualification of in-commuters working in Newry, Mourne and Down (2011)



Source: NI Census, 2011

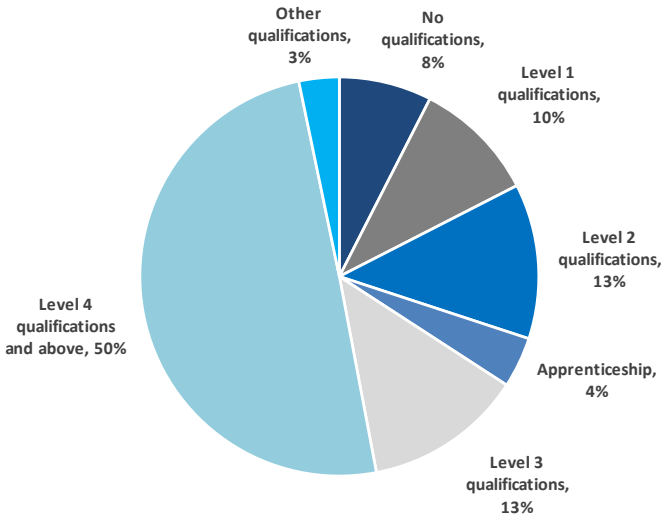
Highest level of qualification of Newry, Mourne and Down residents working in Newry, Mourne and Down (2011)



Source: NI Census, 2011

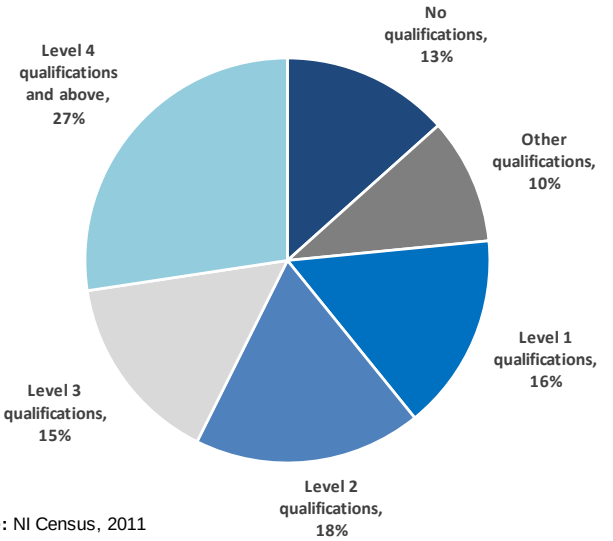
Note: Apprenticeships are included as other qualifications

Highest level of qualification of in-commuters working in Ards and North Down (2011)



Source: NI Census, 2011

Highest level of qualification of Ards and North Down residents working in Ards and North Down (2011)



Source: NI Census, 2011

Note: Apprenticeships are included as other qualifications

Annex F1: Skill profile of employed residents by age in BCR

Employed Population by NQF level and Age - Antrim and Newtownabbey

Employed	Aged 16 to 34		Aged 35 to 49		Aged 50 and over	
	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI
No qualifications	5%	-1%	10%	-2%	26%	-2%
Level 1 qualifications	12%	1%	16%	1%	11%	1%
Level 2 qualifications	21%	2%	18%	1%	13%	1%
Level 3 qualifications	23%	1%	13%	0%	9%	0%
Level 4 qualifications and above	32%	-2%	34%	0%	27%	-1%
Other qualifications	7%	-1%	8%	-1%	14%	1%

Source: Census 2011

Employed Population by NQF level and Age - Belfast

Employed	Aged 16 to 34		Aged 35 to 49		Aged 50 and over	
	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI
No qualifications	6%	0%	12%	0%	25%	-3%
Level 1 qualifications	10%	-1%	14%	-1%	10%	0%
Level 2 qualifications	16%	-3%	14%	-2%	12%	-1%
Level 3 qualifications	23%	1%	11%	-2%	9%	1%
Level 4 qualifications and above	39%	5%	41%	6%	33%	5%
Other qualifications	6%	-2%	7%	-2%	11%	-2%

Source: Census 2011

Employed Population by NQF level and Age - Lisburn and Castlereagh

Employed	Aged 16 to 34		Aged 35 to 49		Aged 50 and over	
	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI
No qualifications	4%	-2%	8%	-4%	22%	-6%
Level 1 qualifications	11%	0%	14%	-1%	10%	0%
Level 2 qualifications	19%	0%	16%	-1%	13%	0%
Level 3 qualifications	22%	-1%	12%	-1%	10%	1%
Level 4 qualifications and above	38%	4%	42%	8%	33%	6%
Other qualifications	6%	-1%	7%	-2%	12%	-1%

Source: Census 2011

Employed Population by NQF level and Age - Mid and East Antrim

Employed	Aged 16 to 34		Aged 35 to 49		Aged 50 and over	
	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI
No qualifications	5%	0%	12%	0%	28%	1%
Level 1 qualifications	12%	1%	16%	1%	10%	-1%
Level 2 qualifications	21%	2%	18%	1%	13%	0%
Level 3 qualifications	24%	1%	14%	1%	9%	0%
Level 4 qualifications and above	30%	-4%	31%	-4%	26%	-2%
Other qualifications	8%	0%	10%	1%	14%	2%

Source: Census 2011

Employed Population by NQF level and Age - Newry, Mourne and Down

Employed	Aged 16 to 34		Aged 35 to 49		Aged 50 and over	
	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI
No qualifications	6%	0%	11%	-1%	27%	0%
Level 1 qualifications	11%	0%	14%	-1%	10%	0%
Level 2 qualifications	19%	1%	16%	0%	13%	0%
Level 3 qualifications	22%	0%	14%	1%	9%	0%
Level 4 qualifications and above	32%	-3%	34%	-1%	28%	0%
Other qualifications	10%	3%	11%	2%	13%	1%

Source: Census 2011

Employed Population by NQF level and Age - Ards and North Down

Employed	Aged 16 to 34		Aged 35 to 49		Aged 50 and over	
	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI	% of age group	P.Point difference with NI
No qualifications	10%	-2%	4%	-4%	8%	-9%
Level 1 qualifications	13%	1%	12%	2%	17%	1%
Level 2 qualifications	18%	1%	20%	1%	17%	2%
Level 3 qualifications	16%	0%	23%	1%	14%	1%
Level 4 qualifications and above	35%	1%	35%	2%	36%	4%
Other qualifications	8%	-2%	6%	-2%	7%	0%

Source: Census 2011

Annex G1: Funded pre-school meal enrolment by school type in BCR LGDs

Belfast City Council funded pre-school enrolment by school type

School type	Required places (2027)	Net change (2017-2027)
Nursery schools/ classes in primary schools	3,460	-210
Voluntary and private preschools	700	-40
Reception classes in primary schools	0	0
Total funded pre-school	**4,160**	**-250**

Source: NISRA, DE and UUEPC

Lisburn and Castlereagh funded pre-school enrolment by school type

School type	Required places (2027)	Net change (2017-2027)
Nursery schools/ classes in primary schools	180	0
Voluntary and private preschools	520	-10
Reception classes in primary schools	0	0
Total funded pre-school	**690**	**-20**

Source: NISRA, DE and UUEPC

Note: Figures for voluntary and private pre-schools are not provided for Lisburn and Castlereagh

Newry, Mourne and Down funded pre-school enrolment by school type

School type	Required places (2027)	Net change (2017-2027)
Nursery schools/ classes in primary schools	870	-80
Voluntary and private preschools	560	-50
Reception classes in primary schools	0	0
Total funded pre-school	**1,440**	**-120**

Source: NISRA, DE and UUEPC

Antrim and Newtownabbey funded pre-school enrolment by school type

School type	Required places (2027)	Net change (2017 - 2027)
Nursery schools/ classes in primary schools	1,160	-90
Voluntary and private preschools	430	-30
Reception classes in primary schools	20	0
Total funded pre-school	**1,610**	**-120**

Source: NISRA, DE and UUEPC

Mid and East Antrim funded pre-school enrolment by school type

School type	Required places (2027)	Net change (2017 - 2027)
Nursery schools/ classes in primary schools	870	-80
Voluntary and private preschools	560	-50
Reception classes in primary schools	0	0
Total funded pre-school	**1,440**	**-120**

Source: NISRA, DE and UUEPC

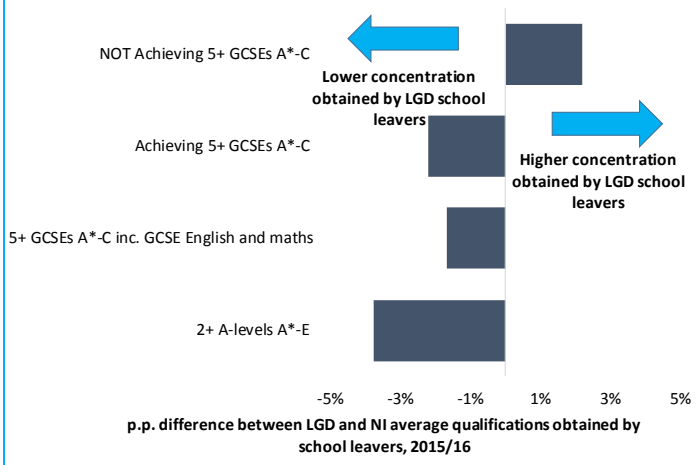
Ards and North Down funded pre-school enrolment by school type

School type	Required places (2027)	Net change (2017 - 2027)
Nursery schools/ classes in primary schools	890	-90
Voluntary and private preschools	670	-70
Reception classes in primary schools	10	0
Total funded pre-school	**1,580**	**-150**

Source: NISRA, DE and UUEPC

Annex H: School leavers by qualification, BCR LGDs versus NI

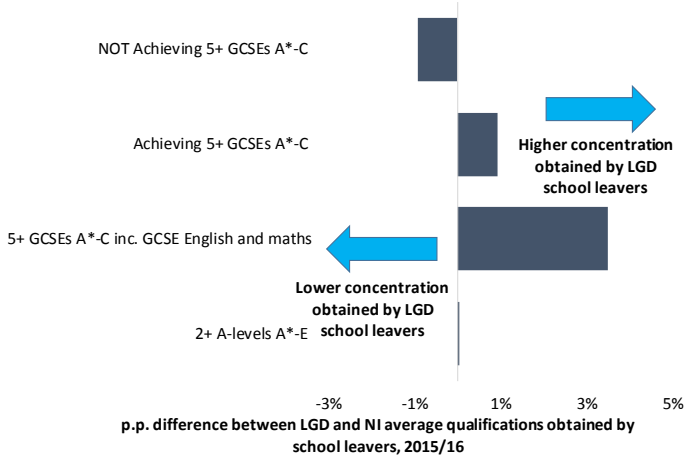
School leavers by qualification (% of total school leavers), Antrim and Newtownabbey relative to NI, 2015/16



p.p. difference between LGD and NI average qualifications obtained by school leavers, 2015/16

Source: NISRA, NI School Leavers Survey

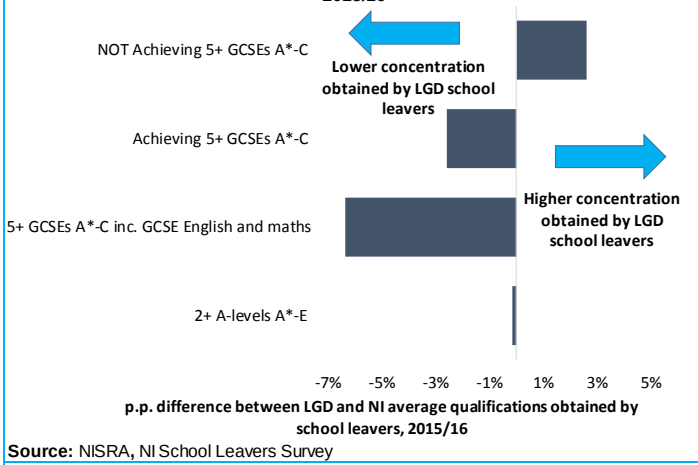
School leavers by qualification (% of total school leavers), Ards and North Down relative to NI, 2015/16



p.p. difference between LGD and NI average qualifications obtained by school leavers, 2015/16

Source: NISRA, NI School Leavers Survey

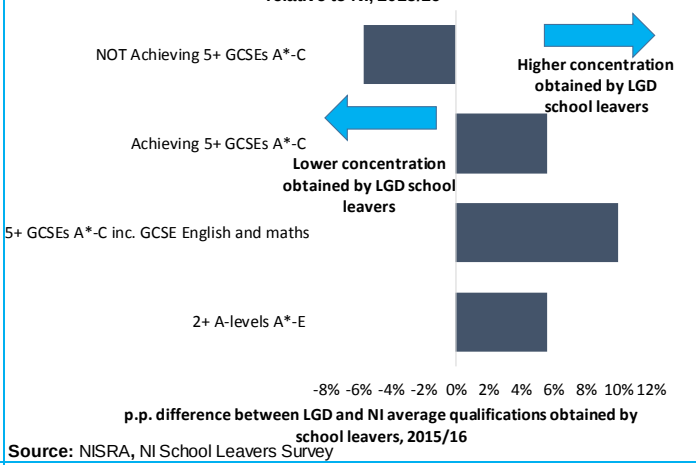
School leavers by qualification (% of total school leavers), Belfast relative to NI, 2015/16



p.p. difference between LGD and NI average qualifications obtained by school leavers, 2015/16

Source: NISRA, NI School Leavers Survey

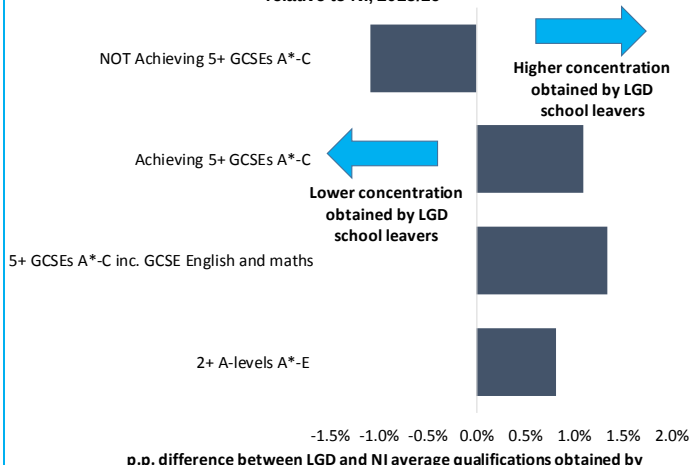
School leavers by qualification (% of total school leavers), Lisburn and Castlereagh relative to NI, 2015/16



p.p. difference between LGD and NI average qualifications obtained by school leavers, 2015/16

Source: NISRA, NI School Leavers Survey

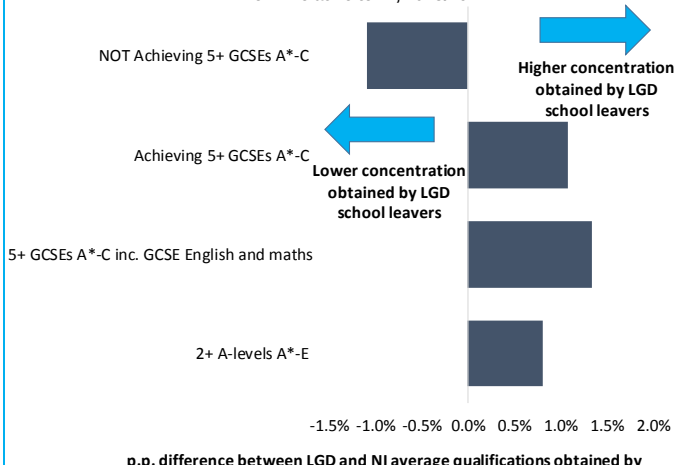
School leavers by qualification (% of total school leavers), Mid and East Antrim relative to NI, 2015/16



p.p. difference between LGD and NI average qualifications obtained by school leavers, 2015/16

Source: NISRA, NI School Leavers Survey

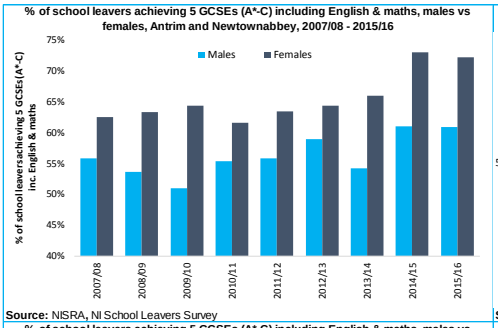
School leavers by qualification (% of total school leavers), Newry, Mourne and Down relative to NI, 2015/16



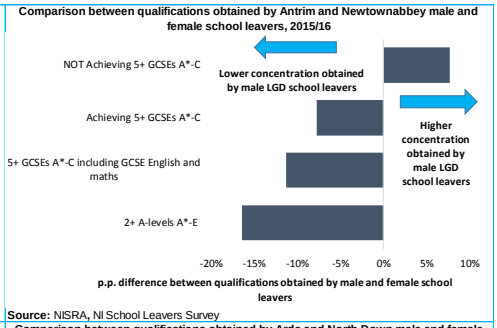
p.p. difference between LGD and NI average qualifications obtained by school leavers, 2015/16

Source: NISRA, NI School Leavers Survey

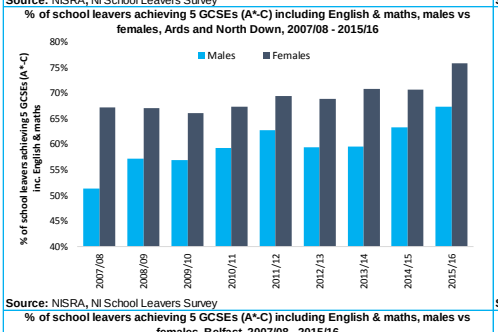
Annex I1: School leavers by qualification, male versus female, BCR LGDs



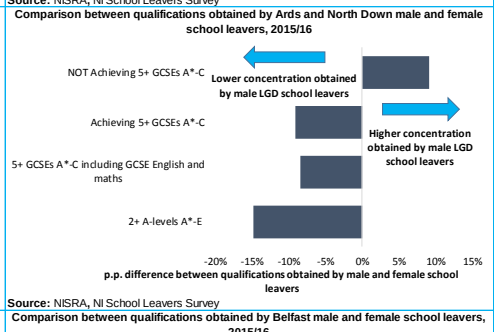
Source: NISRA, NI School Leavers Survey



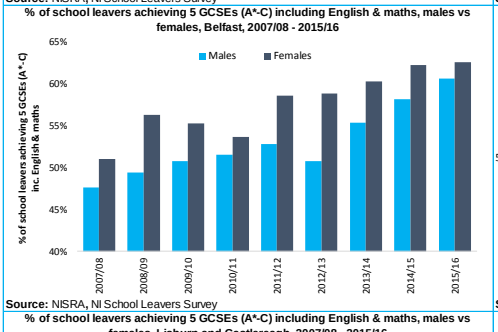
Source: NISRA, NI School Leavers Survey



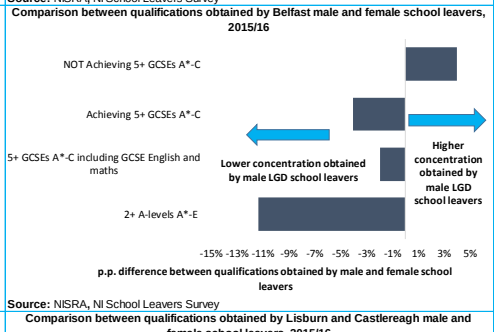
Source: NISRA, NI School Leavers Survey



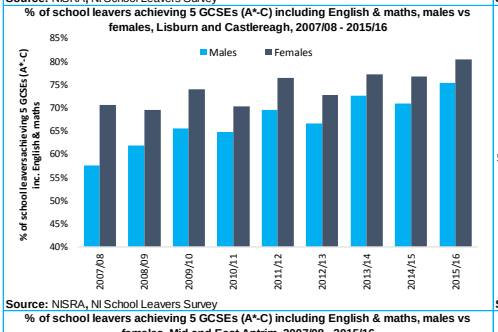
Source: NISRA, NI School Leavers Survey



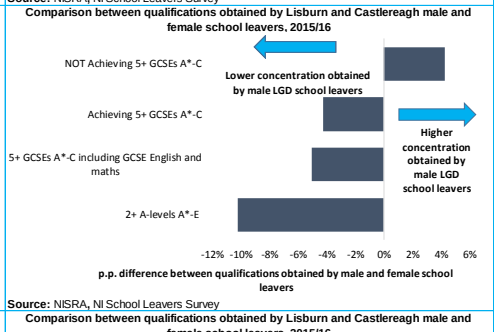
Source: NISRA, NI School Leavers Survey



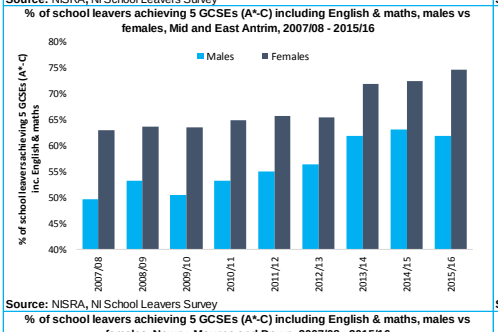
Source: NISRA, NI School Leavers Survey



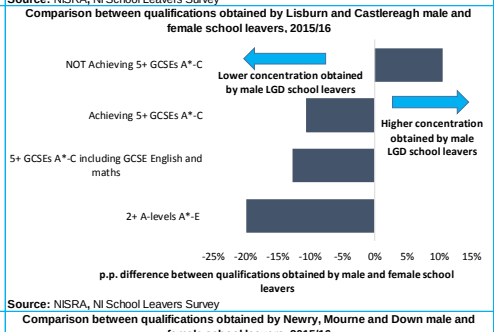
Source: NISRA, NI School Leavers Survey



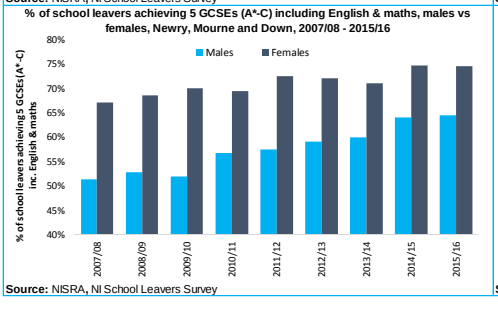
Source: NISRA, NI School Leavers Survey



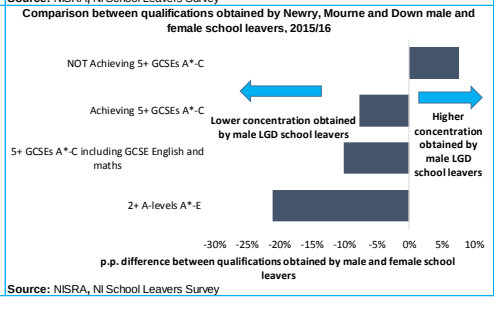
Source: NISRA, NI School Leavers Survey



Source: NISRA, NI School Leavers Survey

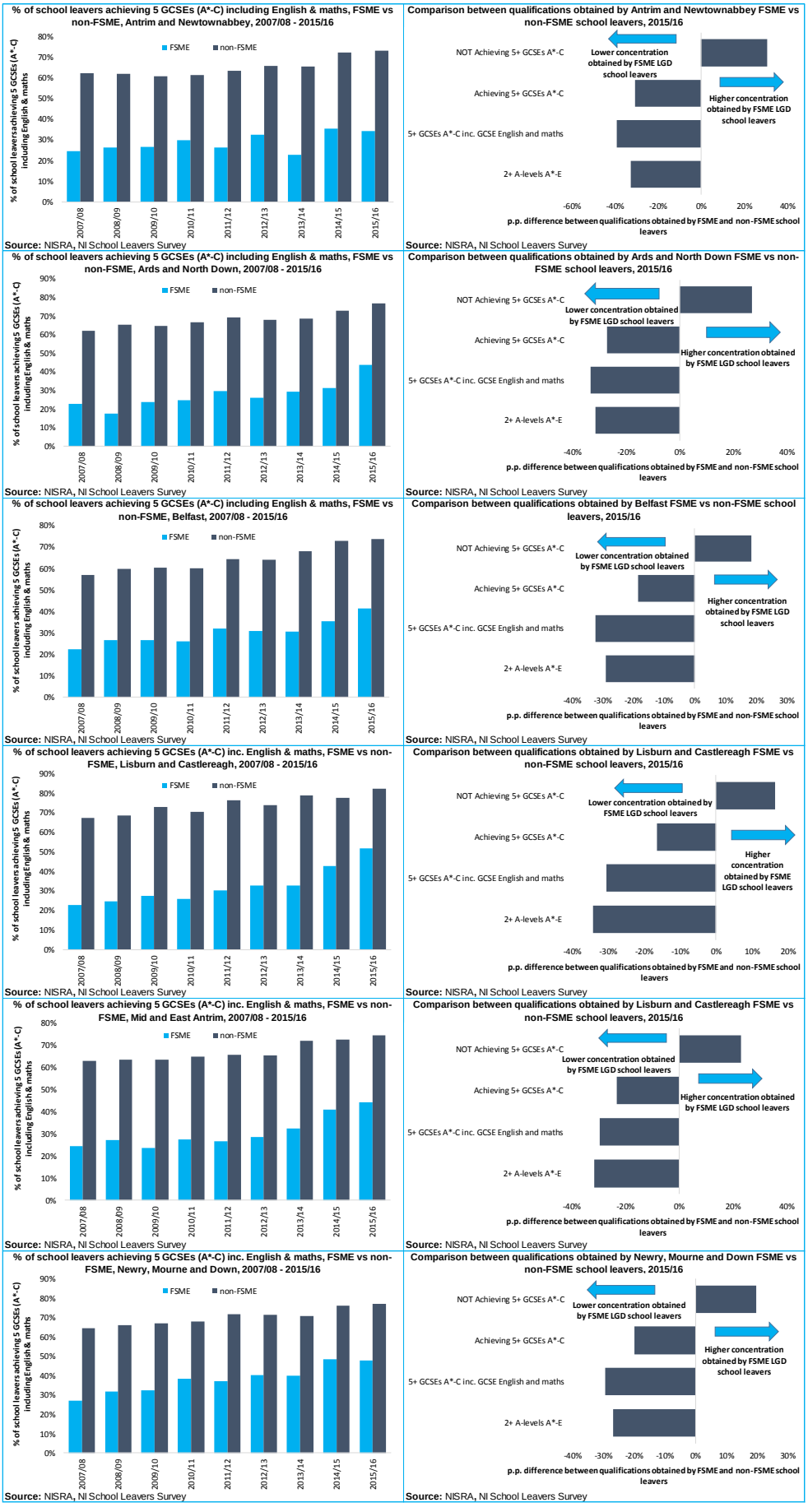


Source: NISRA, NI School Leavers Survey



Source: NISRA, NI School Leavers Survey

Annex I2: School leavers by qualification, FSME versus non-FSME, BCR LGDs



Annex I3: School leavers by qualification, gender and FSME, BCR LGDs

Qualification of school leavers by gender and FSME, Antrim and Newtownabbey, 2015/16

% of school leavers achieving	Male (2015/16)			Female (2015/16)		
	FSME	Non-FSME	p.p. difference	FSME	Non-FSME	p.p. difference
2+ A-levels A*-E	25%	52%	**-27%**	32%	70%	**-38%**
5+ GCSEs A*-C inc. English and maths	32%	68%	**-35%**	37%	79%	**-43%**
Achieving any 5+ GCSEs A*-C	52%	81%	**-29%**	57%	89%	**-32%**
Not Achieving 5+ GCSEs A*-C	48%	19%	**29%**	43%	11%	**32%**

Source: NI School leavers survey, NISRA

Qualification of school leavers by gender and FSME, Ards and North Down, 2015/16

% of school leavers achieving	Male (2015/16)			Female (2015/16)		
	FSME	Non-FSME	p.p. difference	FSME	Non-FSME	p.p. difference
2+ A-levels A*-E	23%	57%	**-35%**	43%	71%	**-28%**
5+ GCSEs A*-C inc. English and maths	39%	73%	**-34%**	49%	81%	**-33%**
Achieving any 5+ GCSEs A*-C	55%	83%	**-28%**	65%	92%	**-26%**
Not Achieving 5+ GCSEs A*-C	45%	17%	**28%**	35%	8%	**26%**

Source: NI School leavers survey, NISRA

Qualification of school leavers by gender and FSME, Belfast, 2015/16

% of school leavers achieving	Male (2015/16)			Female (2015/16)		
	FSME	Non-FSME	p.p. difference	FSME	Non-FSME	p.p. difference
2+ A-levels A*-E	34%	65%	**-31%**	47%	74%	**-27%**
5+ GCSEs A*-C inc. English and maths	40%	73%	**-33%**	43%	74%	**-31%**
Achieving any 5+ GCSEs A*-C	64%	85%	**-21%**	71%	87%	**-16%**
Not Achieving 5+ GCSEs A*-C	36%	15%	**21%**	29%	13%	**16%**

Source: NI School leavers survey, NISRA

Qualification of school leavers by gender and FSME, Lisburn and Castlereagh, 2015/16

% of school leavers achieving	Male (2015/16)			Female (2015/16)		
	FSME	Non-FSME	p.p. difference	FSME	Non-FSME	p.p. difference
2+ A-levels A*-E	27%	64%	**-37%**	41%	74%	**-33%**
5+ GCSEs A*-C inc. English and maths	44%	80%	**-36%**	59%	84%	**-26%**
Achieving any 5+ GCSEs A*-C	66%	88%	**-22%**	79%	91%	**-12%**
Not Achieving 5+ GCSEs A*-C	34%	12%	**22%**	21%	9%	**12%**

Source: NI School leavers survey, NISRA

Qualification of school leavers by gender and FSME, Mid and East Antrim, 2015/16

% of school leavers achieving	Male (2015/16)			Female (2015/16)		
	FSME	Non-FSME	p.p. difference	FSME	Non-FSME	p.p. difference
2+ A-levels A*-E	23%	51%	**-29%**	38%	71%	**-33%**
5+ GCSEs A*-C inc. English and maths	40%	67%	**-27%**	49%	80%	**-31%**
Achieving any 5+ GCSEs A*-C	61%	80%	**-18%**	64%	91%	**-27%**
Not Achieving 5+ GCSEs A*-C	39%	20%	**18%**	36%	9%	**27%**

Source: NI School leavers survey, NISRA

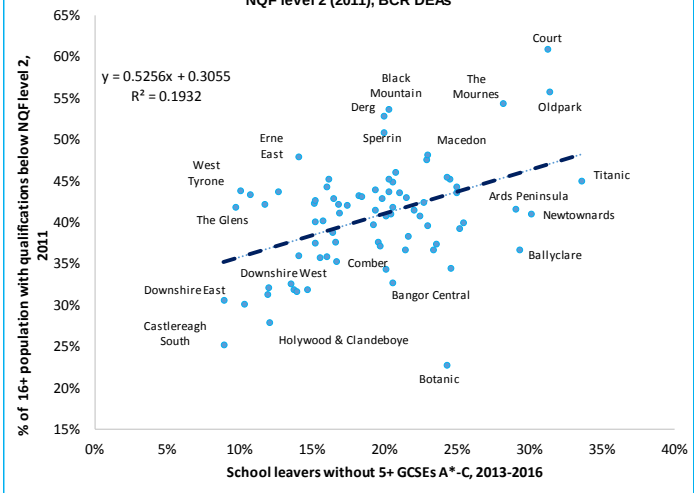
Qualification of school leavers by gender and FSME, Newry, Mourne and Down, 2015/16

% of school leavers achieving	Male (2015/16)			Female (2015/16)		
	FSME	Non-FSME	p.p. difference	FSME	Non-FSME	p.p. difference
2+ A-levels A*-E	28%	58%	**-30%**	54%	76%	**-22%**
5+ GCSEs A*-C inc. English and maths	42%	73%	**-31%**	55%	81%	**-27%**
Achieving any 5+ GCSEs A*-C	63%	85%	**-22%**	74%	91%	**-17%**
Not Achieving 5+ GCSEs A*-C	37%	15%	**22%**	26%	9%	**17%**

Source: NI School leavers survey, NISRA

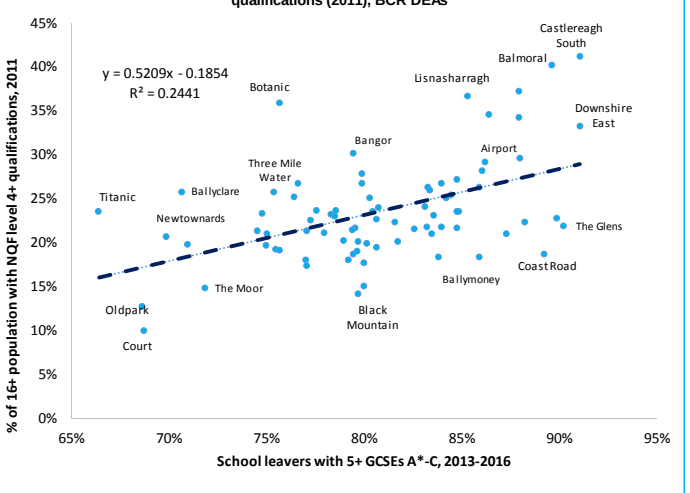
Annex J1: Correlation Analysis

School leavers without 5+ GCSEs A*-C (2013-2016) vs % of 16+ population with qualifications below NQF level 2 (2011), BCR DEAs



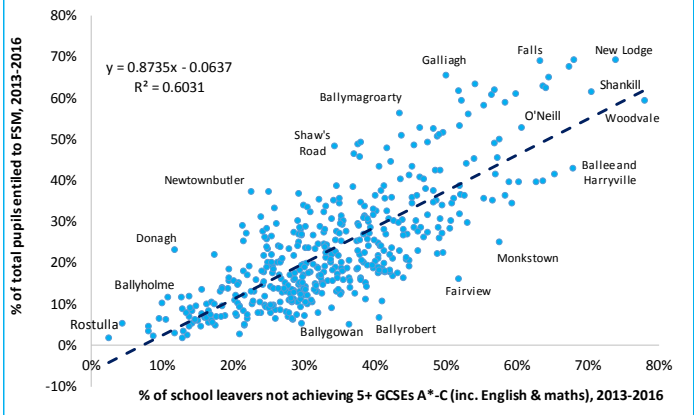
Source: NISRA, NI School Leavers Survey, Census 2011

School leavers achieving 5+ GCSEs A*-C (2013-2016) vs % of 16+ population with NQF level 4+ qualifications (2011), BCR DEAs



Source: NISRA, NI School Leavers Survey, Census 2011

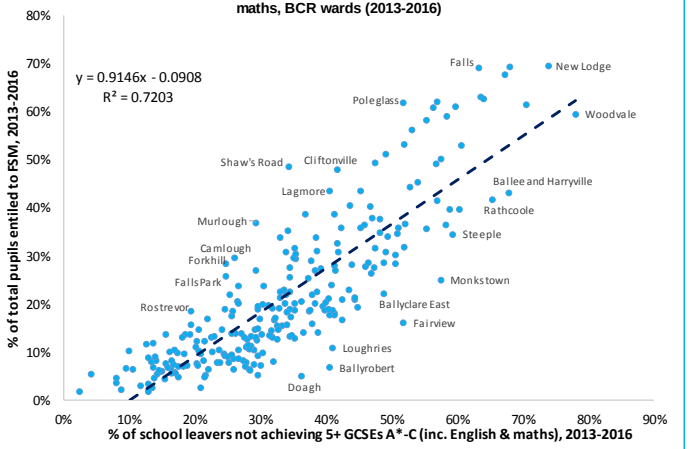
% of total pupils entitled to FSM vs % of school leavers not achieving 5 GCSEs A*-C inc. English & maths, NI wards (2013-2016)



Source: NISRA, NI School Leavers Survey, Census 2011

Note: FSM refers to free school meals

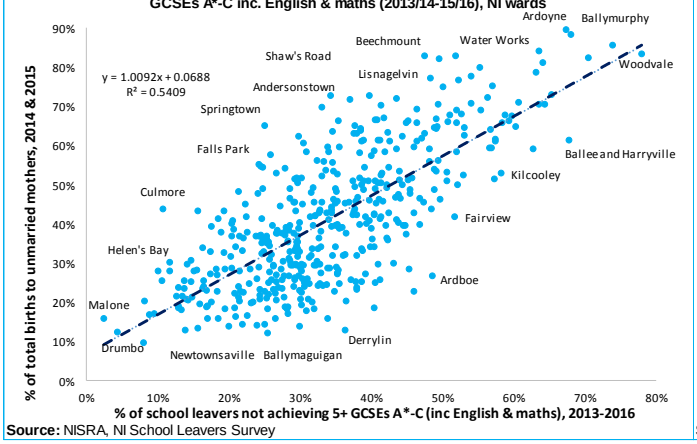
% of total pupils entitled to FSM vs % of school leavers not achieving 5 GCSEs A*-C inc. English & maths, BCR wards (2013-2016)



Source: NISRA, NI School Leavers Survey, Census 2011

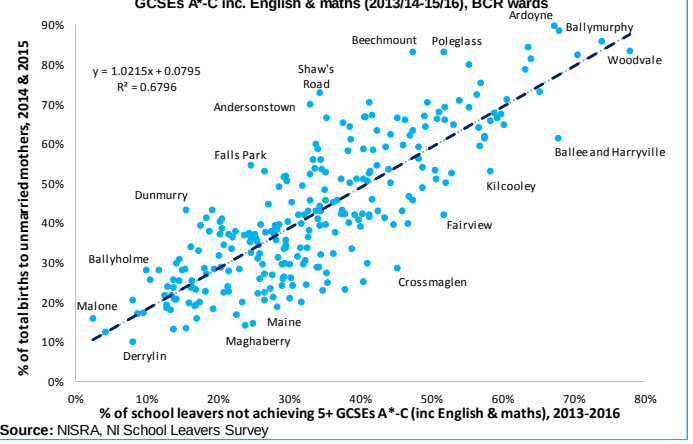
Note: FSM refers to free school meals

% of total births to unmarried mothers (2014 & 2015) vs % of school leavers not achieving at least 5 GCSEs A*-C inc. English & maths (2013/14-15/16), NI wards



Source: NISRA, NI School Leavers Survey

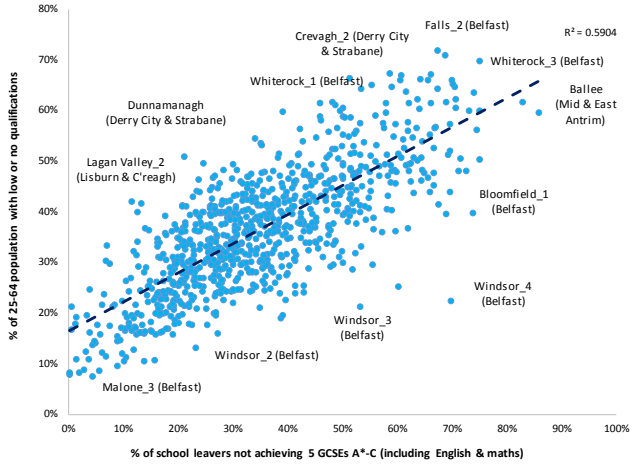
% of total births to unmarried mothers (2014 & 2015) vs % of school leavers not achieving at least 5 GCSEs A*-C inc. English & maths (2013/14-15/16), BCR wards



Source: NISRA, NI School Leavers Survey

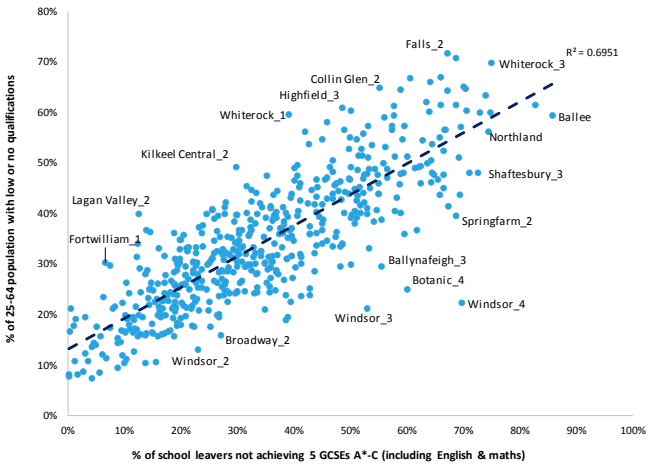
Annex J2: Correlation Analysis

% of 25-64 population with low or no qualifications (2011) versus school leavers not achieving 5 GCSEs A*-C inc. English & maths (2015/16), NI SOAs



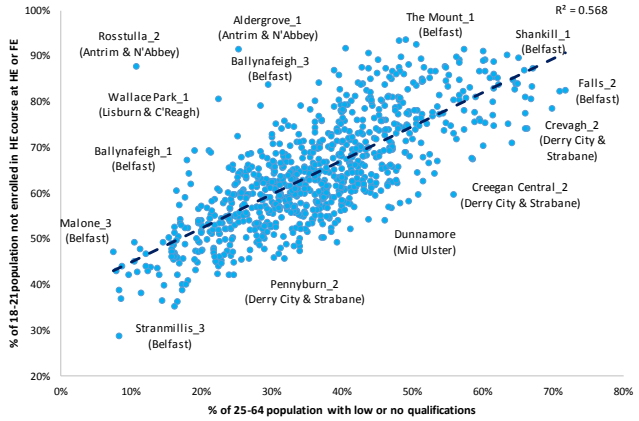
Source: NI Multiple Deprivation Measure

% of 25-64 population with low or no qualifications (2011) versus school leavers not achieving 5 GCSEs A*-C inc. English & maths (2015/16), BCR SOAs



Source: NI Multiple Deprivation Measure

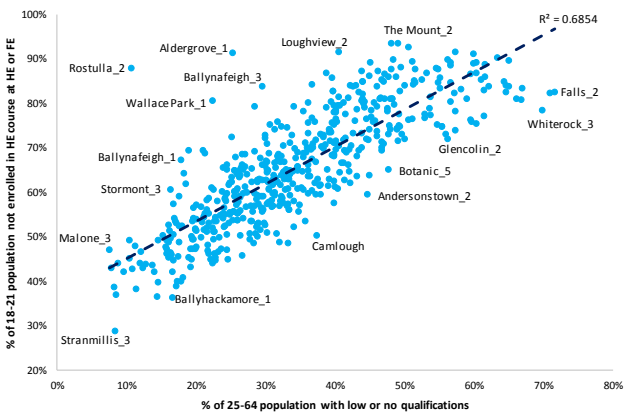
% of 18-21 population not enrolled in HE courses at HE or FE (2015/16) versus % of 25-64 population with low or no qualifications (2011), NI SOAs



Source: NI Multiple Deprivation Measure

Note: *SOAs where no data is avilable have been excluded*

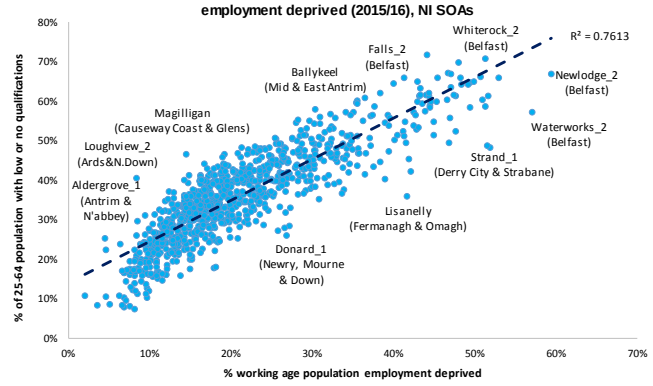
% of 18-21 population not enrolled in HE courses at HE or FE (2015/16) versus % of 25-64 population with low or no qualifications (2011), BCR SOAs



Source: NI Multiple Deprivation Measure

Note: *SOAs where no data is avilable have been excluded*

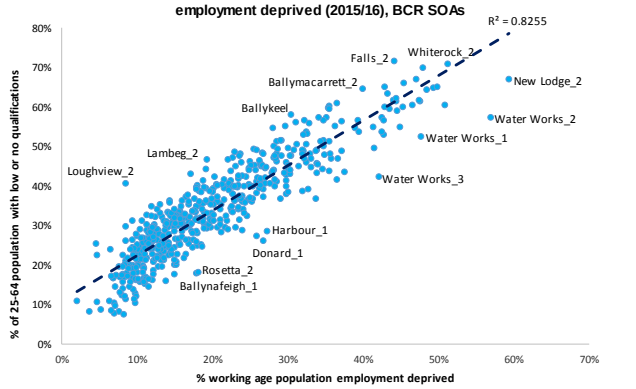
% of 25-64 population with low or no qualifications (2011) versus % of working age population employment deprived (2015/16), NI SOAs



Source: NI Multiple Deprivation Measure

Note: *Employment deprived is defined as proportion of working age population who are in receipt of at least one employment related benefit, and individuals who are not in receipt of an employment related benefit, nor have received income from employment*

% of 25-64 population with low or no qualifications (2011) versus % of working age population employment deprived (2015/16), BCR SOAs

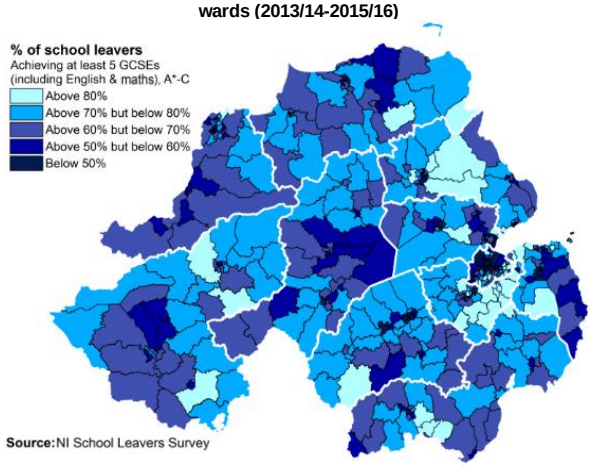


Source: NI Multiple Deprivation Measure

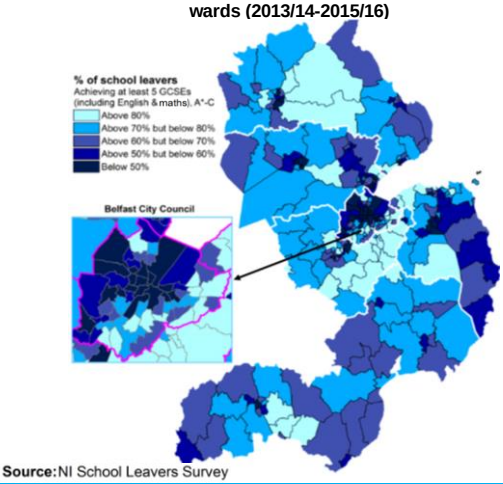
Note: *Employment deprived is defined as proportion of working age population who are in receipt of at least one employment related benefit, and individuals who are not in receipt of an employment related benefit, nor have received income from employment*

Annex K1: Achievement of School leavers, ward level analysis

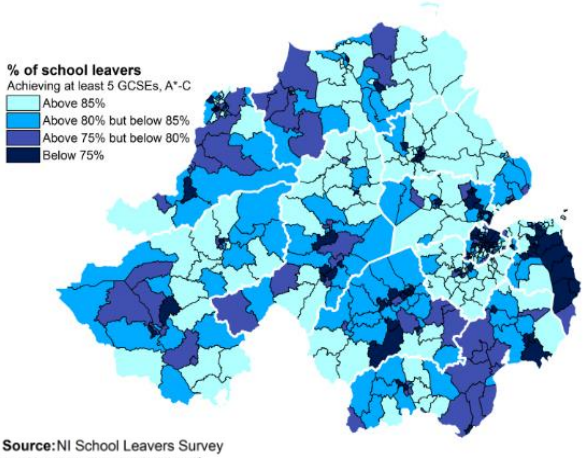
School leavers (%) achieving at least 5 GCSEs inc. English & maths, A*-C, NI wards (2013/14-2015/16)



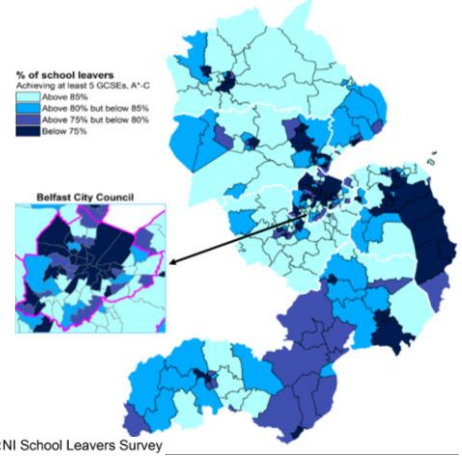
School leavers (%) achieving at least 5 GCSEs inc. English & maths, A*-C, BCR wards (2013/14-2015/16)



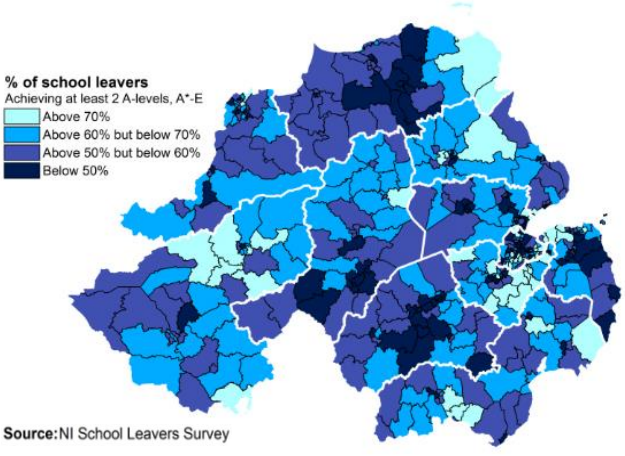
School leavers (%) achieving at least 5 GCSEs A*-C, NI wards (2013/14-2015/16)



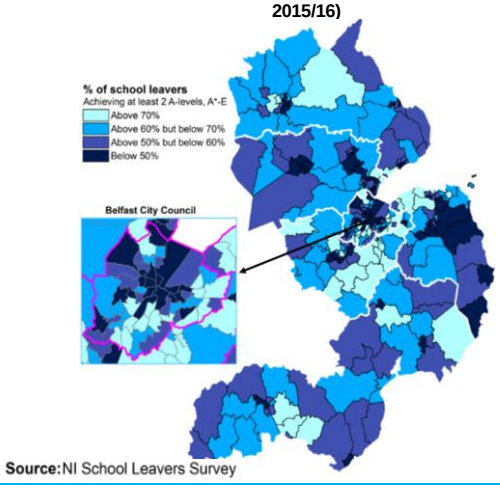
School leavers (%) achieving at least 5 GCSEs A*-C, BCR wards (2013/14-2015/16)



School leavers (%) achieving at least 2 A-levels A*-E, NI wards (2013/14-2015/16)

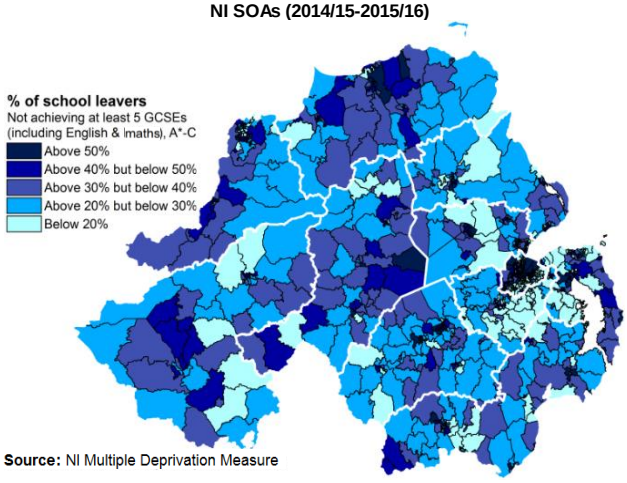


School leavers (%) achieving at least 2 A-levels A*-E, BCR wards (2013/14-2015/16)



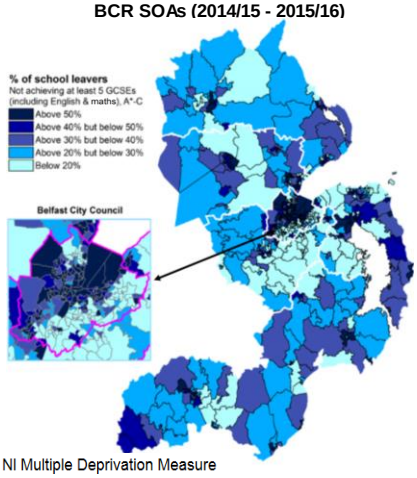
Annex K2: Youth in the NI skills system

School leavers (%) not achieving at least 5 GCSEs inc. English & maths, A*-C, NI SOAs (2014/15-2015/16)



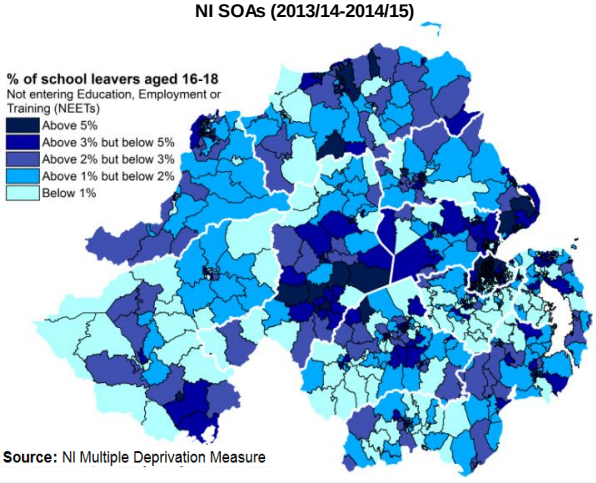
Source: NI Multiple Deprivation Measure

School leavers (%) not achieving at least 5 GCSEs inc. English & maths, A*-C, BCR SOAs (2014/15 - 2015/16)



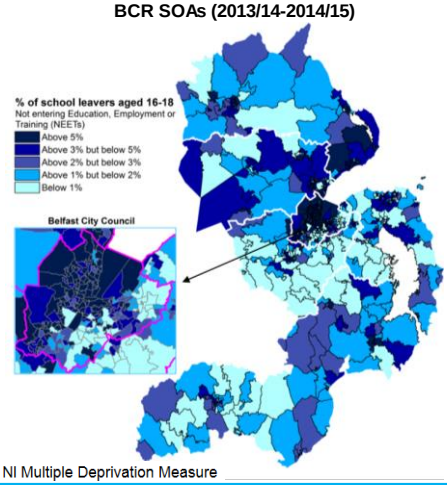
Source: NI Multiple Deprivation Measure

School leavers (%) Not entering Education, Employment or Training (NEETs), NI SOAs (2013/14-2014/15)



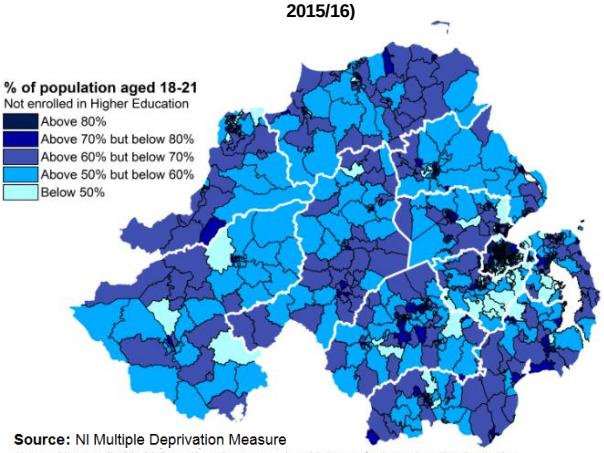
Source: NI Multiple Deprivation Measure

School leavers (%) Not entering Education, Employment or Training (NEETs), BCR SOAs (2013/14-2014/15)



Source: NI Multiple Deprivation Measure

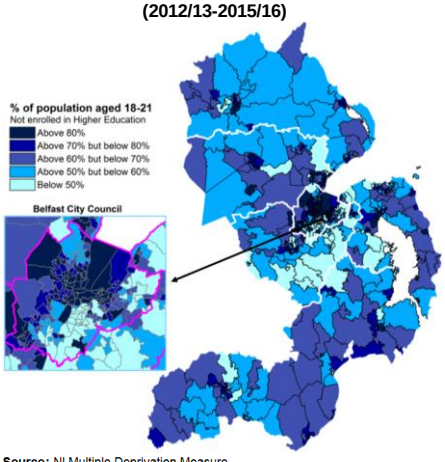
Population aged 18-21 (%) Not enrolled in Higher Education, NI SOAs (2012/13-2015/16)



Source: NI Multiple Deprivation Measure

Note: Not enrolled in higher education course in a higher or further education Institution

Population aged 18-21 (%) Not enrolled in Higher Education, BCR SOAs (2012/13-2015/16)

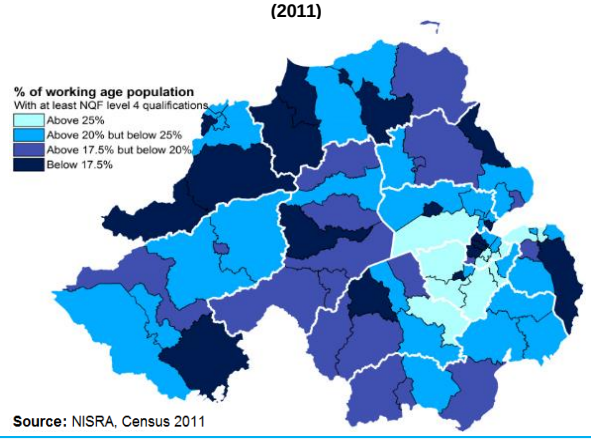


Source: NI Multiple Deprivation Measure

Note: Not enrolled in higher education course in a higher or further education Institution

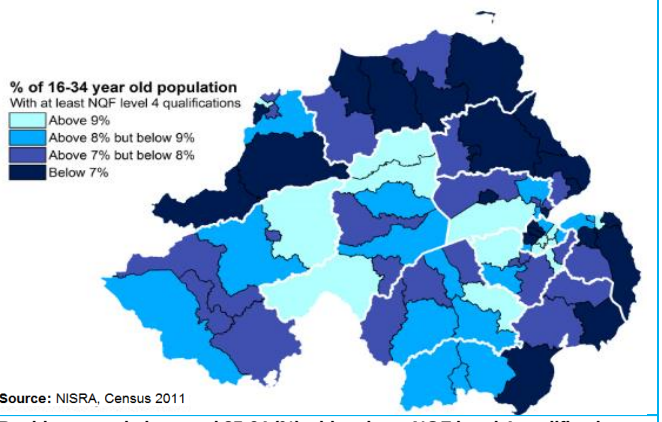
Annex K3: Population with high level skills

Working age population (%) with at least NQF level 4 qualifications, NI DEAs (2011)



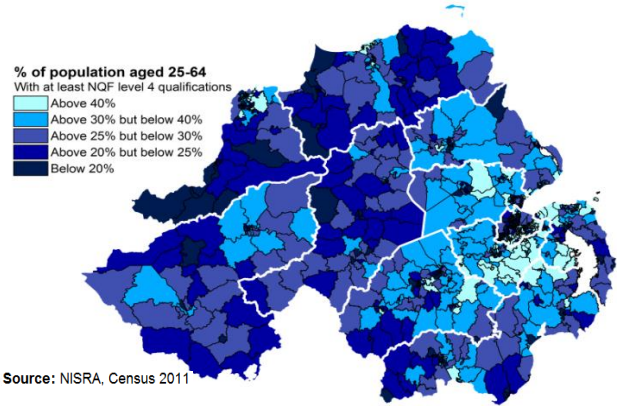
Source: NISRA, Census 2011

Population aged 16-34 (%) with at least NQF level 4 qualifications, NI DEAs (2011)



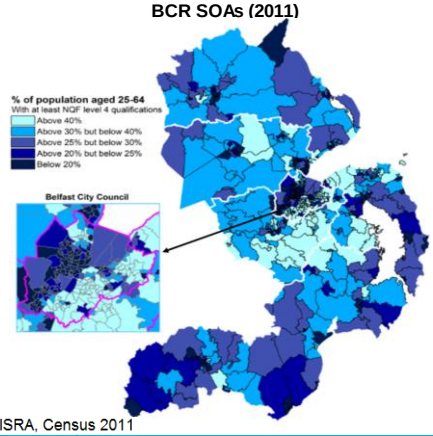
Source: NISRA, Census 2011

Resident population aged 25-64 (%) with at least NQF level 4 qualifications, NI SOAs (2011)



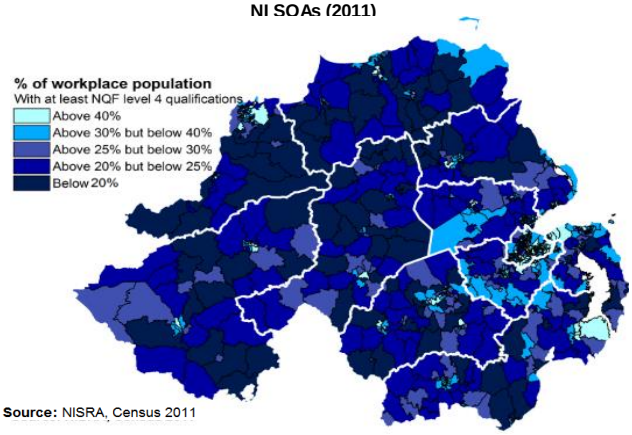
Source: NISRA, Census 2011

Resident population aged 25-64 (%) with at least NQF level 4 qualifications, BCR SOAs (2011)



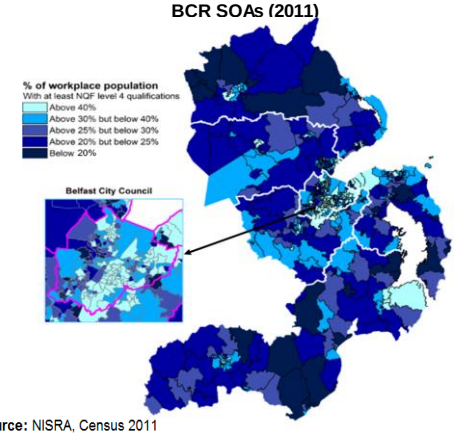
Source: NISRA, Census 2011

Workplace population aged 16-74 (%) with at least NQF level 4 qualifications, NI SOAs (2011)



Source: NISRA, Census 2011

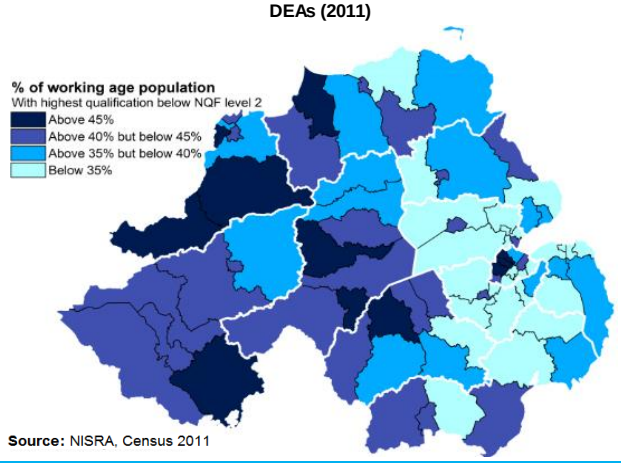
Workplace population aged 16-74 (%) with at least NQF level 4 qualifications, BCR SOAs (2011)



Source: NISRA, Census 2011

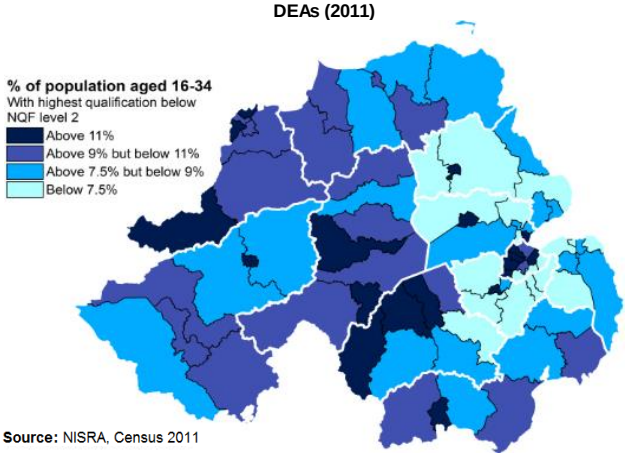
Annex K4: Population with low level skills

Working age population (%) with highest qualification below NQF level 2, NI DEAs (2011)



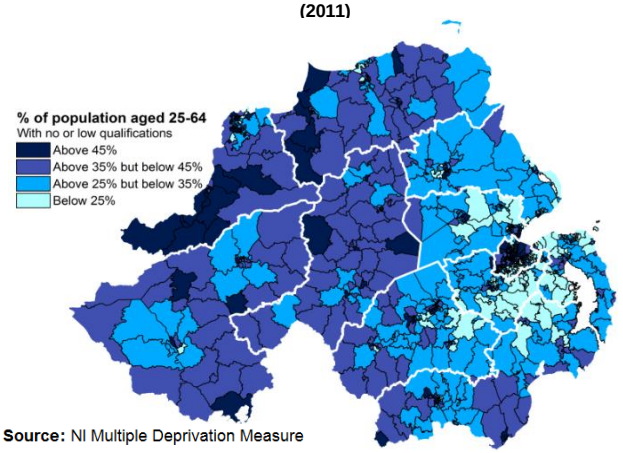
Source: NISRA, Census 2011

Population aged 16-34 (%) with highest qualification below NQF level 2, NI DEAs (2011)



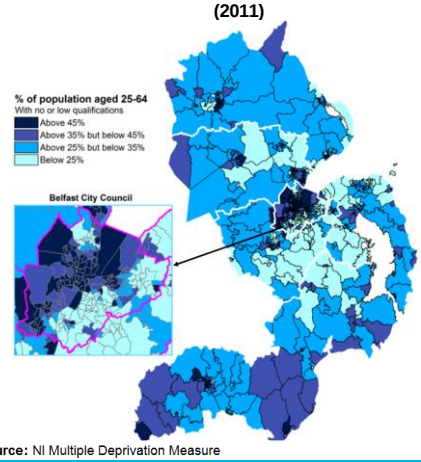
Source: NISRA, Census 2011

Resident population aged 25-64 (%) with no or low qualifications, NI SOAs (2011)



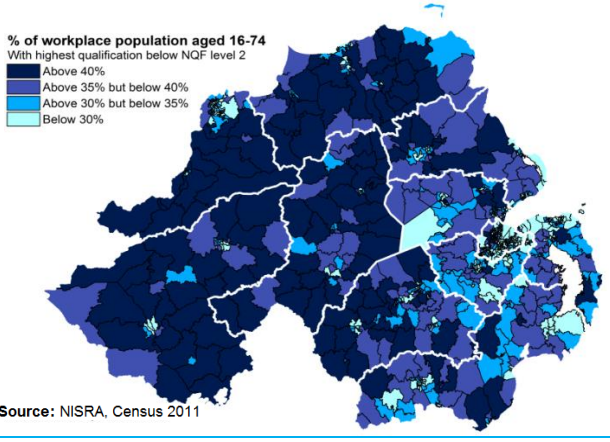
Source: NI Multiple Deprivation Measure

Resident population aged 25-64 (%) with no or low qualifications, BCR SOAs (2011)



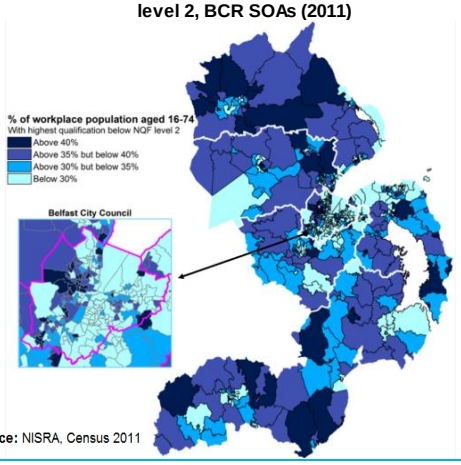
Source: NI Multiple Deprivation Measure

Workplace population aged 16-74 (%) with highest qualification below NQF level 2, NI SOAs (2011)



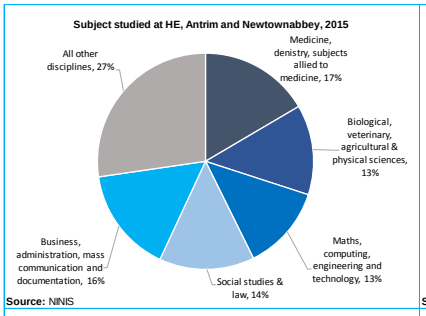
Source: NISRA, Census 2011

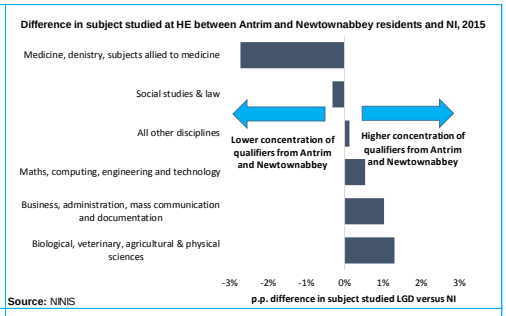
Workplace population aged 16-74 (%) with highest qualification below NQF level 2, BCR SOAs (2011)

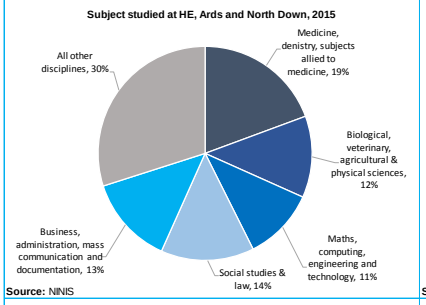


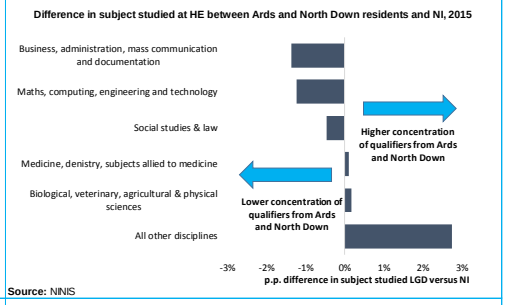
Source: NISRA, Census 2011

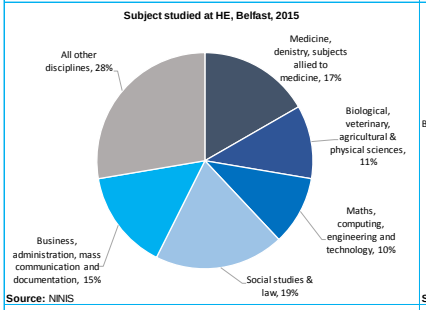
Annex L1: BCR LGDs Qualifications vs Northern Ireland

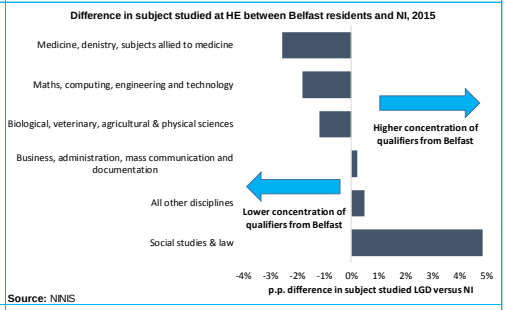


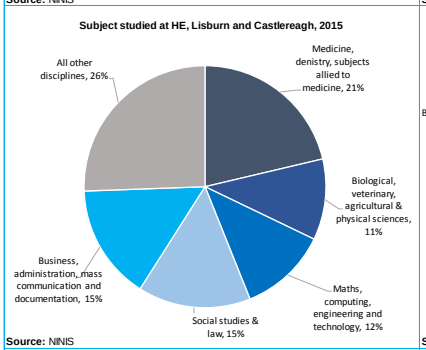


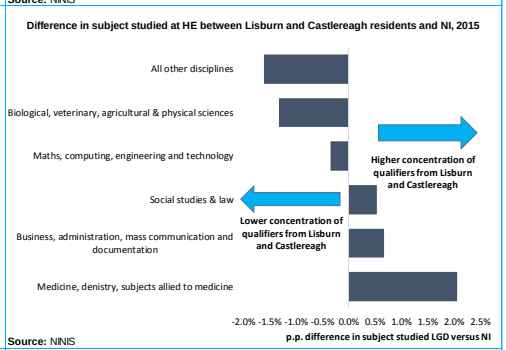


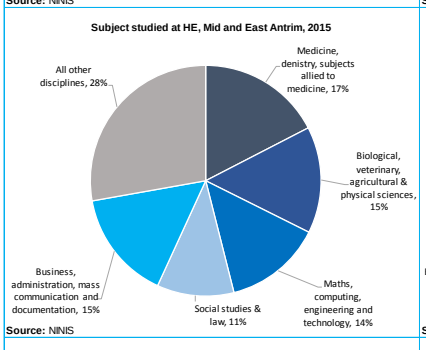


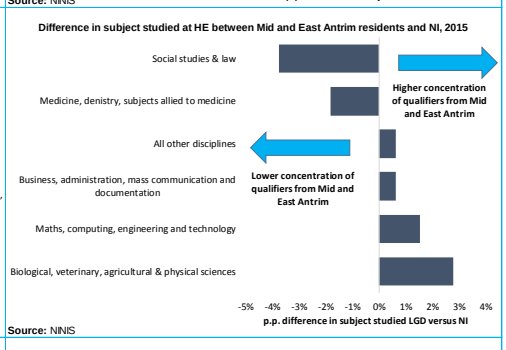


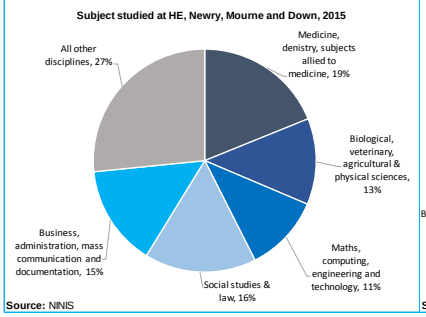


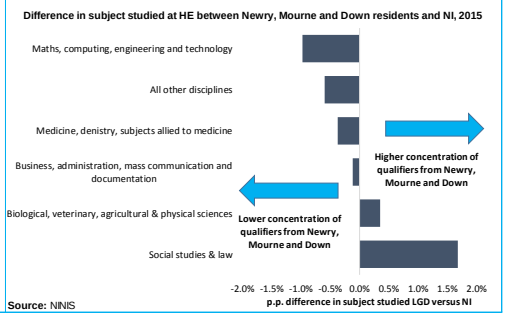






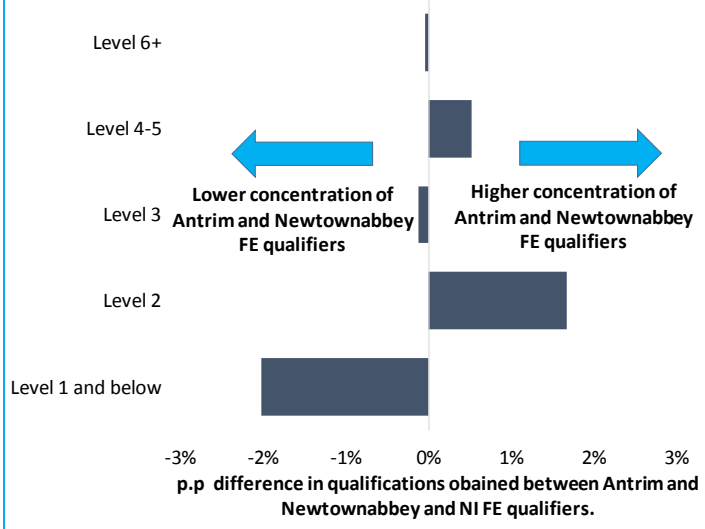






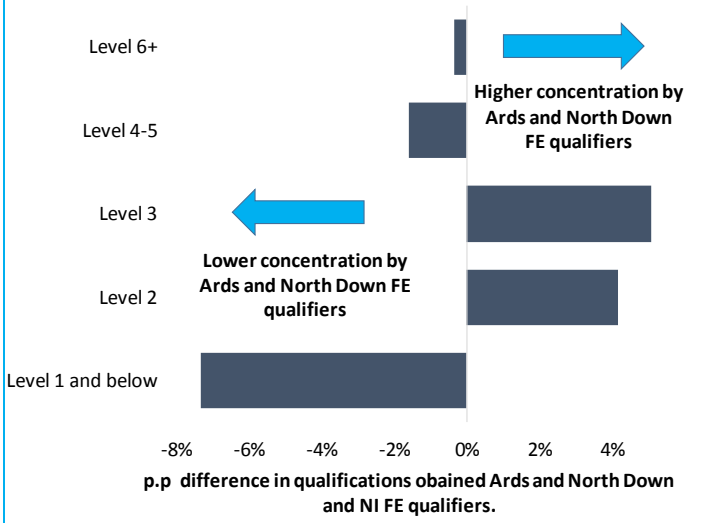
Annex L2: BCR LGDs Qualifications vs Northern Ireland

Difference between level of FE qualifications obtained by Antrim and Newtownabbey qualifiers and the NI average, 2016/17



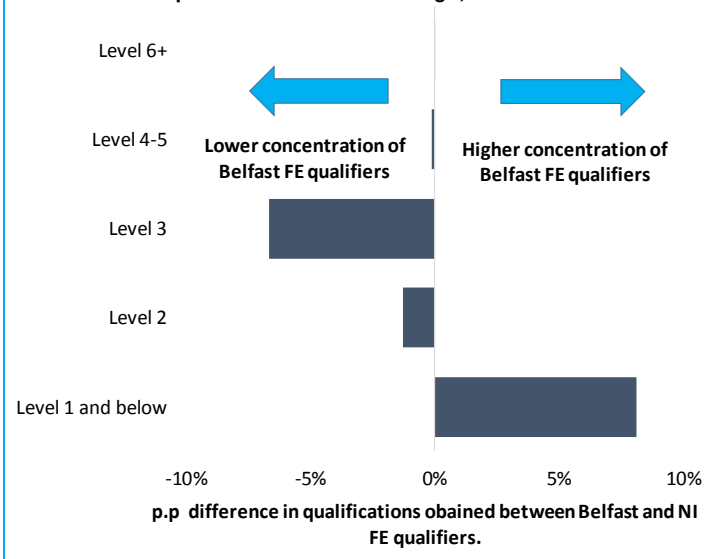
Source: Further Education Leavers Survey

Difference between level of FE qualifications obtained by Ards and North Down qualifiers and the NI average, 2016/17



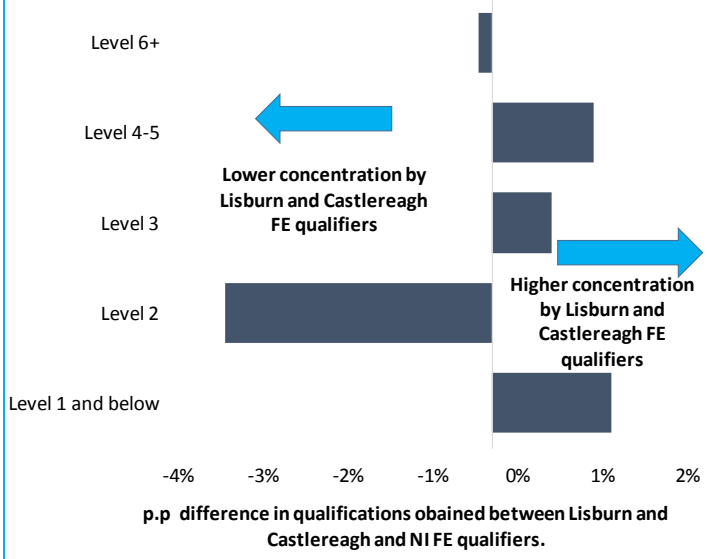
Source: Further Education Leavers Survey

Difference between level of FE qualifications obtained by Belfast qualifiers and the NI average, 2016/17



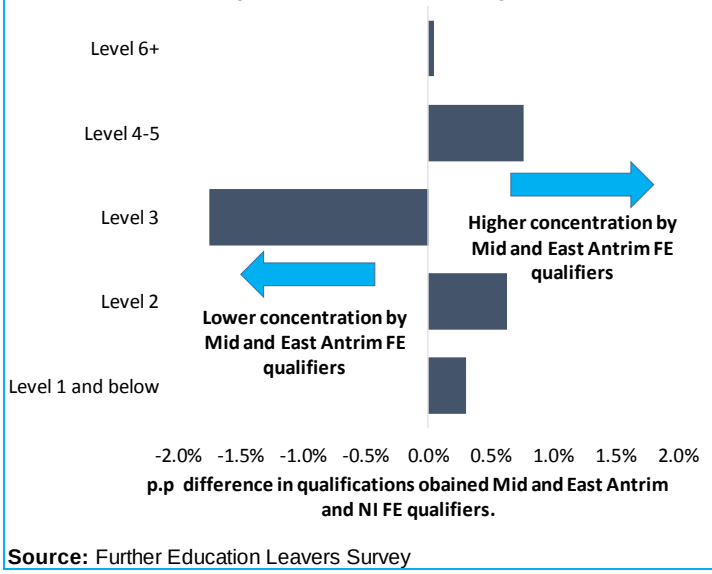
Source: Further Education Leavers Survey

Difference between level of FE qualifications obtained by Lisburn and Castlereagh qualifiers and the NI average, 2016/17



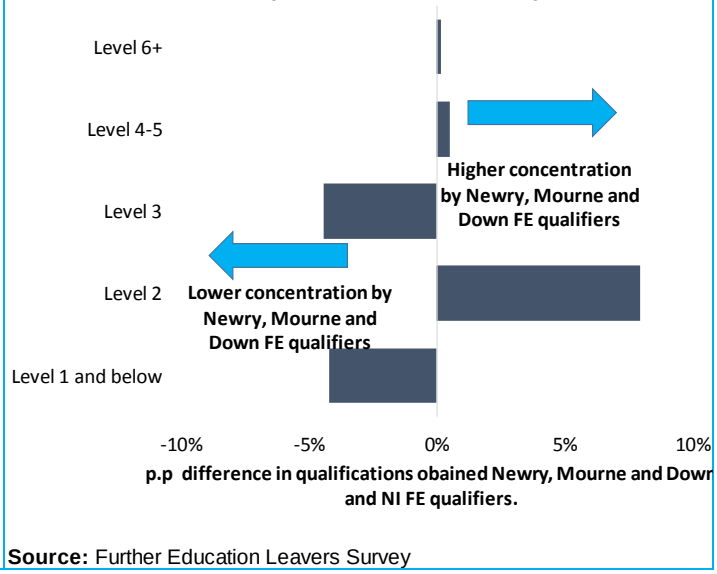
Source: Further Education Leavers Survey

Difference between level of FE qualifications obtained by Mid and East Antrim qualifiers and the NI average, 2016/17



Source: Further Education Leavers Survey

Difference between level of FE qualifications obtained by Newry, Mourne and Down qualifiers and the NI average, 2016/17



Source: Further Education Leavers Survey

Annex M: District Electoral Areas and electoral wards in BCR

1. The tables below summarises the electoral wards which comprise DEAs in BCR.

Table N1: District electoral areas and electoral wards

Antrim and Newtownabbey

District Electoral Area	Electoral wards
Airport	Aldergrove, Clady, Crumlin, Mallusk and Templepatrick
Antrim	Antrim Centre, Fountain Hill, Greystone, Springfarm, Steeple and Stiles
Ballyclare	Ballyclare East, Ballyclare West, Ballynure, Ballyrobert and Doagh
Dunsilly	Cranfield, Parkgate, Randalstown, Shilvodan and Toome
Glengormley Urban	Ballyhenry, Burnthill, Carnmoney, Collinbridge, Glebe, Glengormley and Hightown
Macedon	Abbey, Carnmoney Hill, O'Neill, Rathcoole, Valley and Whitehouse
Three Mile Water	Ballyduff, Fairview, Jordanstown, Monkstown, Mossley and Rostulla

Belfast

District Electoral Area	Electoral wards
Balmoral	Belvoir, Finaghy, Malone, Musgrave and Upper Malone
Black Mountain	Andersonstown, Ballymurphy, Beechmount, Collin Glen, Falls Park, Shaw's Road and Turf Lodge
Botanic	Blackstaff, Central, Ormeau, Stranmillis and Windsor
Castle	Bellevue, Cavehill, Chichester Park, Duncairn and Fortwilliam
Collin	Dunmurry, Ladybrook, Lagmore, Poleglass, Stewartstown and Twinbrook
Court	Ballygomartin, Clonard, Falls, Forth River and Shankill
Lisnasharragh	Cregagh, Hillfoot, Merok, Orangefield, Ravenhill and Rosetta
Oldpark	Ardoyne, Ballysillan, Cliftonville, Legoniel, New Lodge and Water Works
Ormiston	Belmont, Garnerville, Gilnahirk, Knock, Sandown, Shandon and Stormont
Titanic	Ballymacarrett, Beersbridge, Bloomfield, Connswater, Sydenham and Woodstock

Lisburn and Castlereagh

District Electoral Area	Electoral wards
Castlereagh East	Ballyhanwood, Carrowreagh, Dundonald, Enler, Graham's Bridge and Moneyreagh
Castlereagh South	Beechill, Cairnshill, Carryduff East, Carryduff West, Galwally and Knockbracken
Downshire East	Ballymacbrennan, Dromara, Drumbo, Hillhall and Ravernet
Downshire West	Blaris, Hillsborough, Lagan, Maze and Moira
Killultagh	Ballinderry, Glenavy, Maghaberry, Stonyford and White Mountain
Lisburn North	Derryaghy, Harmony Hill, Hilden, Lambeg, Magheralave and Wallace Park
Lisburn South	Ballymacash, Ballymacoss, Knockmore, Lagan Valley, Lisnagarvey and Old Warren

Mid and East Antrim

District Electoral Area	Electoral wards
Ballymena	Academy, Ardeevin, Ballykeel, Braidwater, Castle Demesne, Fair Green and Park
Bannside	Ahoghill, Cullybackey, Galgorm, Grange, Maine and Portglenone
Braid	Ballee and Harryville, Broughshane, Glenravel, Glenwhirry, Kells, Kirkinriola and Slemish
Carrick Castle	Boneybefore, Castle, Kilroot, Love Lane and Victoria
Coast Road	Cairncastle, Carnlough and Glenarm, Craigyhill, Gardenmore and The Maidens
Knockagh	Burleigh Hill, Gortalee, Greenisland, Sunnylands and Woodburn
Larne Lough	Ballycarry and Glynn, Curran and Inver, Islandmagee, Kilwaughter and Whitehead South

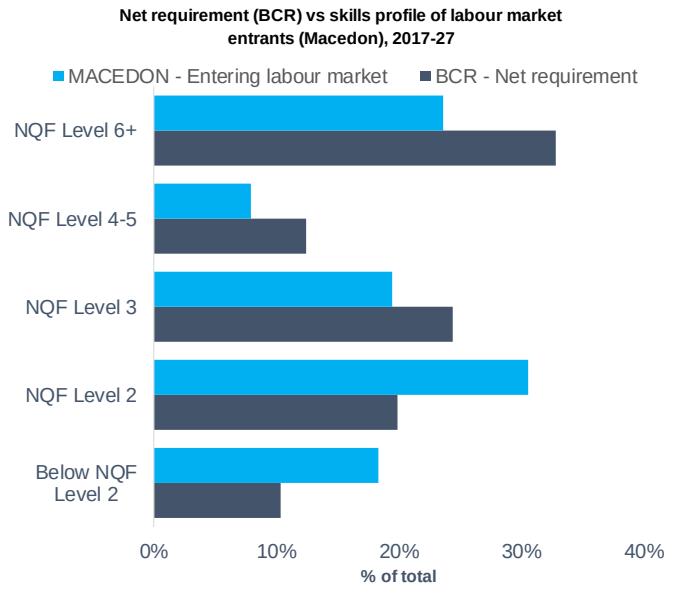
Newry, Mourne and Down

District Electoral Area	Electoral wards
Crotlieve	Burren, Derryleckagh, Hilltown, Mayobridge, Rostrevor and Warrenpoint
Downpatrick	Cathedral, Knocknashinna, Lecale, Quoile and Strangford
Newry	Abbey, Ballybot, Damolly, Drumalane, Fathom and St. Patrick's
Rowallane	Ballynahinch, Crossgar and Killyleagh, Derryboy, Kilmore and Saintfield
Slieve Croob	Ballydugan, Ballyward, Castlewellan, Drumaness and Dundrum
Slieve Gullion	Bessbrook, Camlough, Crossmaglen, Forkhill, Mullaghbane, Newtownhamilton and Whitecross
The Mournes	Annalong, Binnian, Donard, Kilkeel, Lisnacree, Murlough and Tollymore

Ards and North Down

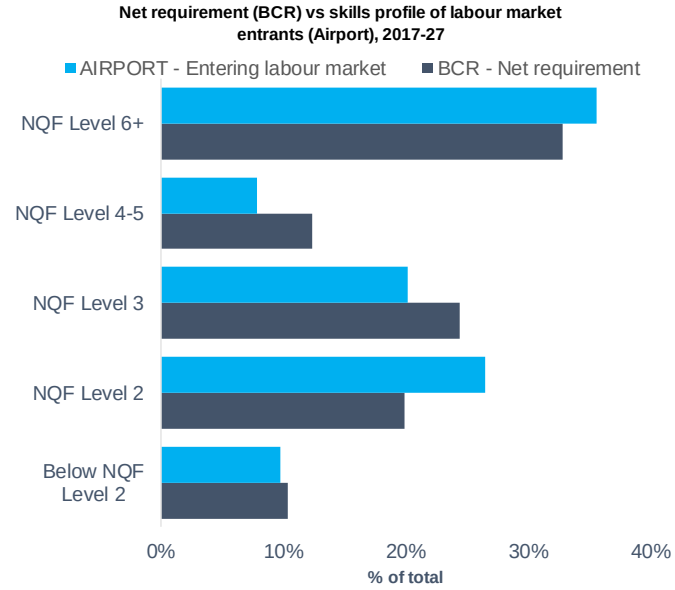
District Electoral Area	Electoral wards
Ards Peninsula	Ballywalter, Carrowdore, Kircubbin, Loughries, Portaferry and Portavogie
Bangor Central	Ballygrainey, Ballyholme, Bloomfield, Broadway, Castle and Harbour
Bangor East and Donaghadee	Ballycrochan, Ballymagee, Donaghadee, Groomsport, Silverbirch and Warren
Bangor West	Bryansburn, Kilcooley, Rathgael, Rathmore and Silverstream
Comber	Ballygowan, Comber North, Comber South, Comber West and Killinchy
Holywood and Clandeboye	Clandeboye, Cultra, Helen's Bay, Holywood and Loughview
Newtownards	Conway Square, Cronstown, Glen, Gregstown, Movilla, Scrabo and West Winds

Annex M1: DEA scorecards, Antrim & Newtownabbey



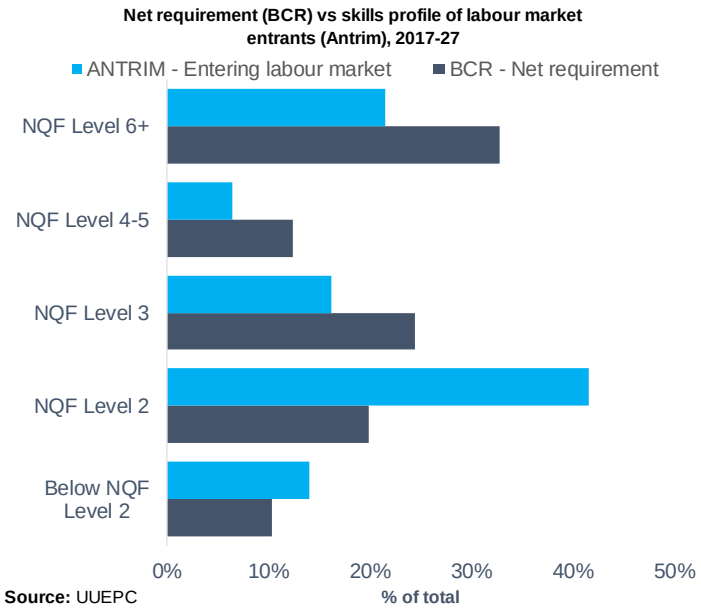
Source: UUEPC

	Macedon	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	58%	74
	% of school enrolments entitled to FSM	39%	71
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	11%	41
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	60%	59
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	18%	58
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	10%	75
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	19%	61
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	71
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	44%	68
	% of 16-64 population with high qualifications (NQF level 4+)	21%	66
	% of 16-34 population with low qualifications (below NQF level 2)	34%	66
	% of 16-34 population with high qualifications (NQF level 4+)	21%	65
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	29%	69
	Social security clients (client group analysis) as a % of the population (16-34)	22%	67
	Housing benefit claimants as a % of the population (16-64)	17%	71
	Housing benefit claimants as a % of the population (16-34)	14%	72
	% of households with no adults in employment	43%	75
	% of households with no adults in employment with dependent children	6%	61
	% of households with lone parents with dependent children	12%	73
	% of people employed who are either managers/senior officials or professionals	7%	69
	Employment rate (%, 16-74 population)	58%	61
	Unemployed who have never worked (% of unemployed)	18%	63

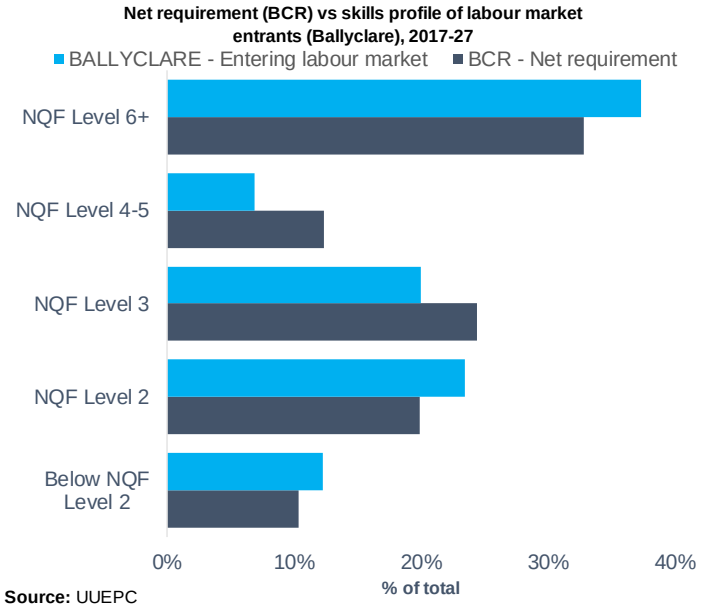


Source: UUEPC

	Airport	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	77%	10
	% of school enrolments entitled to FSM	16%	11
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	9%	32
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	53%	26
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	12%	29
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	17%	26
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	23%	47
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	11%	53
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	30%	11
	% of 16-64 population with high qualifications (NQF level 4+)	32%	11
	% of 16-34 population with low qualifications (below NQF level 2)	22%	9
	% of 16-34 population with high qualifications (NQF level 4+)	30%	14
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	14%	8
	Social security clients (client group analysis) as a % of the population (16-34)	10%	11
	Housing benefit claimants as a % of the population (16-64)	4%	4
	Housing benefit claimants as a % of the population (16-34)	4%	12
	% of households with no adults in employment	21%	2
	% of households with no adults in employment with dependent children	3%	9
	% of households with lone parents with dependent children	7%	30
	% of people employed who are either managers/senior officials or professionals	11%	4
	Employment rate (%, 16-74 population)	71%	2
	Unemployed who have never worked (% of unemployed)	12%	21



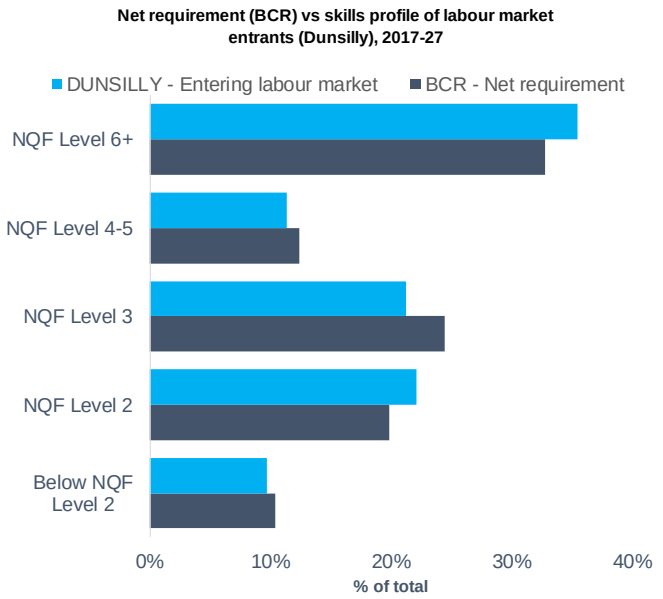
Source: UUEPC



Source: UUEPC

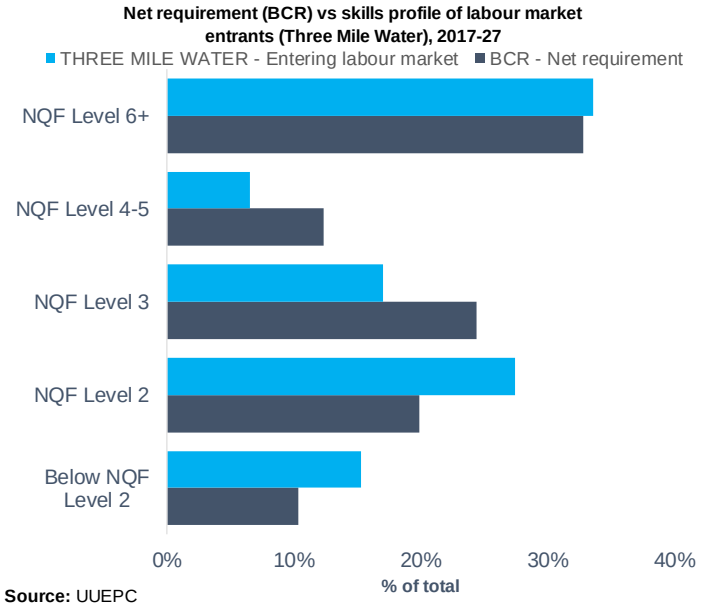
	Antrim	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	55%	75
	% of school enrolments entitled to FSM	32%	57
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	8%	20
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	65%	72
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	13%	40
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	11%	73
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	26%	24
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	10%	65
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	44%	66
	% of 16-64 population with high qualifications (NQF level 4+)	21%	68
	% of 16-34 population with low qualifications (below NQF level 2)	36%	74
	% of 16-34 population with high qualifications (NQF level 4+)	20%	71
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	24%	59
	Social security clients (client group analysis) as a % of the population (16-34)	16%	54
	Housing benefit claimants as a % of the population (16-64)	13%	64
	Housing benefit claimants as a % of the population (16-34)	10%	60
	% of households with no adults in employment	34%	38
	% of households with no adults in employment with dependent children	6%	50
	% of households with lone parents with dependent children	11%	66
	% of people employed who are either managers/senior officials or professionals	7%	70
	Employment rate (%, 16-74 population)	64%	30
	Unemployed who have never worked (% of unemployed)	11%	5

	Ballyclare	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	66%	49
	% of school enrolments entitled to FSM	16%	10
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	*	*
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	49%	10
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	9%	16
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	16%	33
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	33%	4
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	15%	14
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	32%	15
	% of 16-64 population with high qualifications (NQF level 4+)	29%	19
	% of 16-34 population with low qualifications (below NQF level 2)	24%	13
	% of 16-34 population with high qualifications (NQF level 4+)	29%	15
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	16%	12
	Social security clients (client group analysis) as a % of the population (16-34)	11%	22
	Housing benefit claimants as a % of the population (16-64)	6%	20
	Housing benefit claimants as a % of the population (16-34)	6%	34
	% of households with no adults in employment	29%	7
	% of households with no adults in employment with dependent children	3%	15
	% of households with lone parents with dependent children	8%	40
	% of people employed who are either managers/senior officials or professionals	9%	15
	Employment rate (%, 16-74 population)	69%	6
	Unemployed who have never worked (% of unemployed)	18%	60



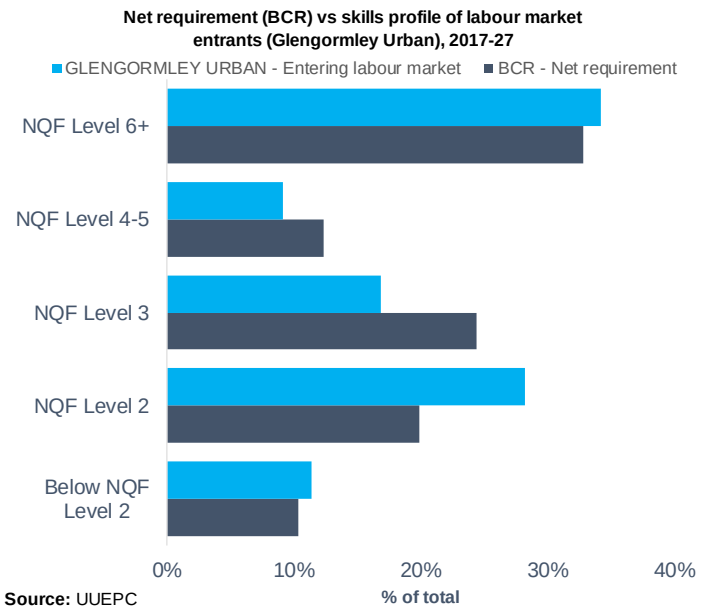
Source: UUEPC

	Dunsilly	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	74%	23
	% of school enrolments entitled to FSM	13%	8
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	4%	6
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	45%	5
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	11%	23
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	16%	36
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	26%	27
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	19%	2
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	33%	20
	% of 16-64 population with high qualifications (NQF level 4+)	29%	15
	% of 16-34 population with low qualifications (below NQF level 2)	24%	15
	% of 16-34 population with high qualifications (NQF level 4+)	26%	27
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	16%	13
	Social security clients (client group analysis) as a % of the population (16-34)	11%	16
	Housing benefit claimants as a % of the population (16-64)	4%	9
	Housing benefit claimants as a % of the population (16-34)	3%	7
	% of households with no adults in employment	26%	5
	% of households with no adults in employment with dependent children	3%	19
	% of households with lone parents with dependent children	6%	20
	% of people employed who are either managers/senior officials or professionals	9%	16
	Employment rate (%, 16-74 population)	68%	8
	Unemployed who have never worked (% of unemployed)	15%	46



Source: UUEPC

	Three Mile Water	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	66%	48
	% of school enrolments entitled to FSM	17%	15
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	5%	9
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	59%	56
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	15%	47
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	14%	59
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	27%	20
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	10%	63
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	33%	16
	% of 16-64 population with high qualifications (NQF level 4+)	28%	23
	% of 16-34 population with low qualifications (below NQF level 2)	26%	22
	% of 16-34 population with high qualifications (NQF level 4+)	23%	51
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	17%	21
	Social security clients (client group analysis) as a % of the population (16-34)	12%	30
	Housing benefit claimants as a % of the population (16-64)	7%	26
	Housing benefit claimants as a % of the population (16-34)	6%	33
	% of households with no adults in employment	31%	22
	% of households with no adults in employment with dependent children	4%	29
	% of households with lone parents with dependent children	9%	48
	% of people employed who are either managers/senior officials or professionals	9%	21
	Employment rate (%, 16-74 population)	63%	35
	Unemployed who have never worked (% of unemployed)	13%	29

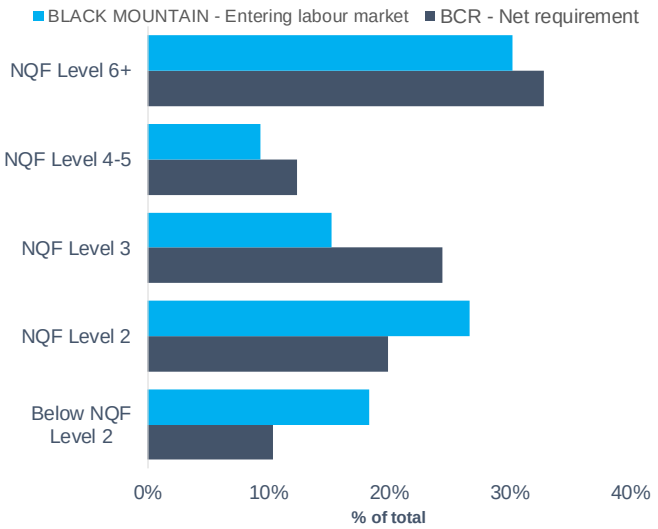


Source: UUEPC

	Glengormley Urban	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	67%	45
	% of school enrolments entitled to FSM	21%	27
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	3%	2
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	56%	47
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	12%	33
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	16%	35
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	25%	34
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	76
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	34%	21
	% of 16-64 population with high qualifications (NQF level 4+)	27%	26
	% of 16-34 population with low qualifications (below NQF level 2)	25%	17
	% of 16-34 population with high qualifications (NQF level 4+)	28%	17
Labour market and socio economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	18%	27
	Social security clients (client group analysis) as a % of the population (16-34)	14%	46
	Housing benefit claimants as a % of the population (16-64)	5%	16
	Housing benefit claimants as a % of the population (16-34)	6%	39
	% of households with no adults in employment	33%	33
	% of households with no adults in employment with dependent children	4%	21
	% of households with lone parents with dependent children	9%	51
	% of people employed who are either managers/senior officials or professionals	8%	29
	Employment rate (%, 16-74 population)	65%	16
	Unemployed who have never worked (% of unemployed)	11%	7

Annex M2: DEA scorecards, Belfast

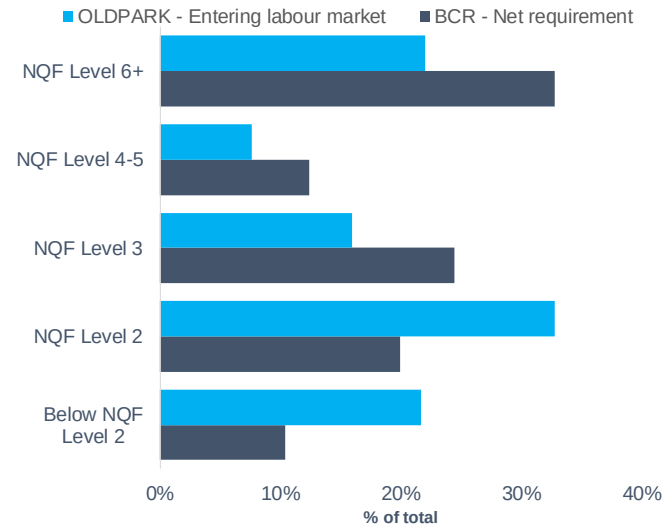
Net requirement (BCR) vs skills profile of labour market entrants (Black Mountain), 2017-27



Source: UUEPC

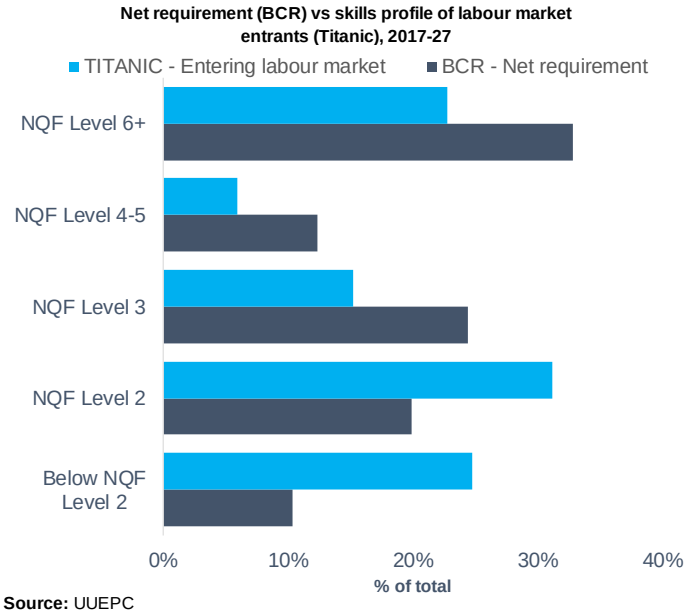
	Black Mountain	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	55%	76
	% of school enrolments entitled to FSM	57%	77
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	21%	75
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	63%	66
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	22%	69
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	9%	76
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	14%	78
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	68
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	51%	76
	% of 16-64 population with high qualifications (NQF level 4+)	16%	78
	% of 16-34 population with low qualifications (below NQF level 2)	37%	75
	% of 16-34 population with high qualifications (NQF level 4+)	18%	76
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	39%	77
	Social security clients (client group analysis) as a % of the population (16-34)	23%	73
	Housing benefit claimants as a % of the population (16-64)	20%	75
	Housing benefit claimants as a % of the population (16-34)	12%	64
	% of households with no adults in employment	47%	77
	% of households with no adults in employment with dependent children	11%	75
	% of households with lone parents with dependent children	17%	77
	% of people employed who are either managers/senior officials or professionals	5%	80
	Employment rate (%, 16-74 population)	48%	77
	Unemployed who have never worked (% of unemployed)	27%	79

Net requirement (BCR) vs skills profile of labour market entrants (Oldpark), 2017-27

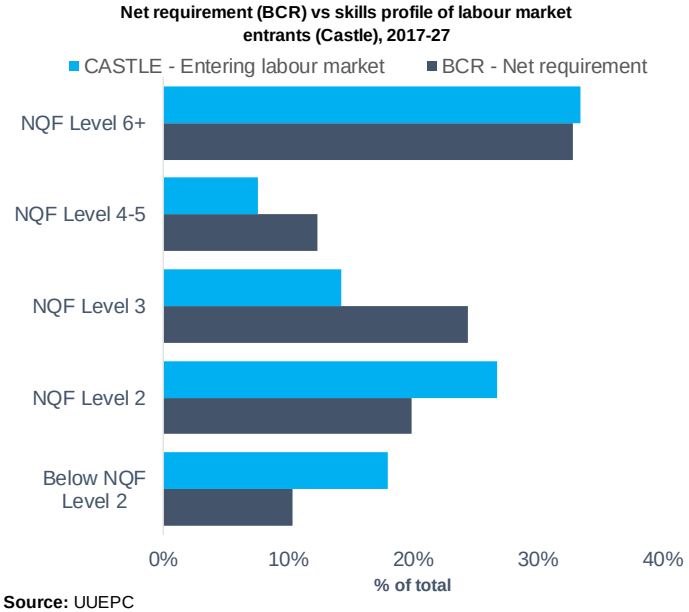


Source: UUEPC

	Oldpark	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	48%	79
	% of school enrolments entitled to FSM	63%	79
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	21%	74
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	66%	74
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	22%	68
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	8%	77
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	18%	66
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	10%	65
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	54%	79
	% of 16-64 population with high qualifications (NQF level 4+)	14%	79
	% of 16-34 population with low qualifications (below NQF level 2)	41%	78
	% of 16-34 population with high qualifications (NQF level 4+)	16%	79
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	44%	79
	Social security clients (client group analysis) as a % of the population (16-34)	37%	80
	Housing benefit claimants as a % of the population (16-64)	30%	79
	Housing benefit claimants as a % of the population (16-34)	25%	80
	% of households with no adults in employment	51%	78
	% of households with no adults in employment with dependent children	13%	77
	% of households with lone parents with dependent children	18%	78
	% of people employed who are either managers/senior officials or professionals	5%	79
	Employment rate (%, 16-74 population)	47%	78
	Unemployed who have never worked (% of unemployed)	25%	76



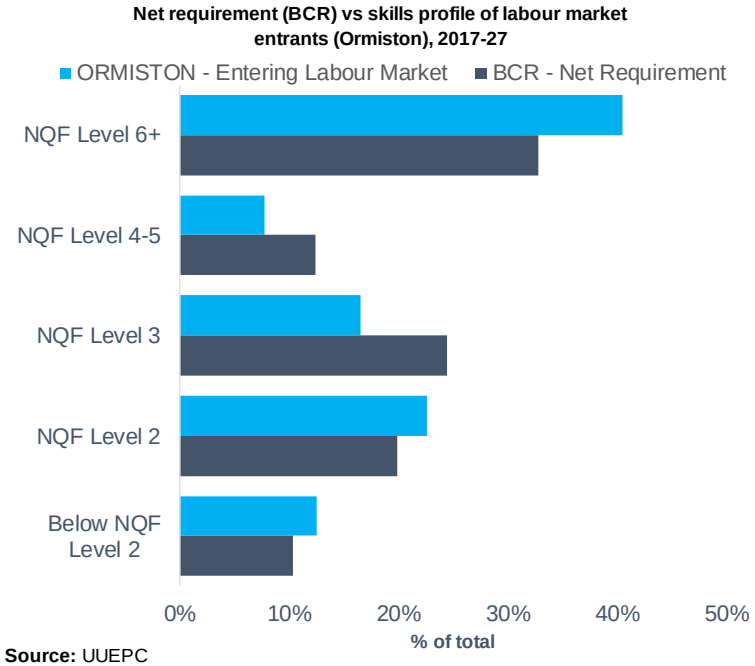
Source: UUEPC



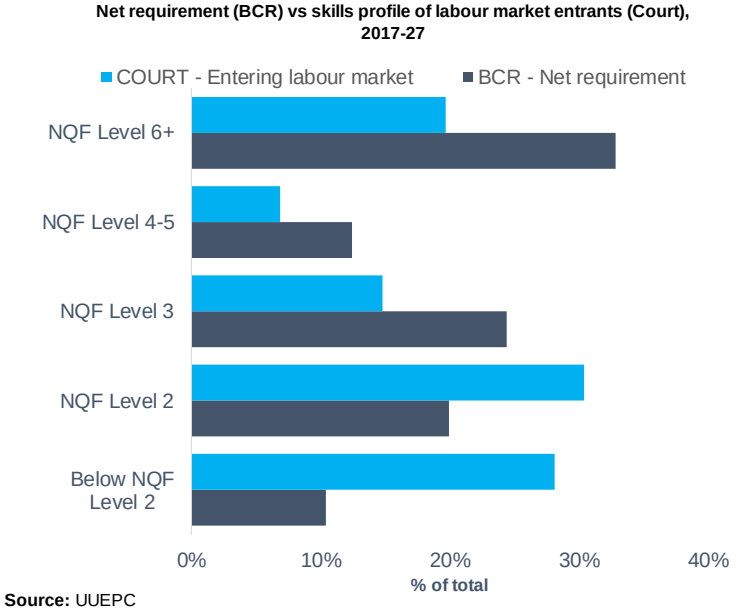
Source: UUEPC

	TITANIC	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and Maths)	54%	77
	% of school enrolments entitled to FSM	52%	76
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and Maths)	17%	68
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	68%	78
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	27%	76
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	7%	78
	% of HE qualifiers achieving a postgraduate qualification (L7-8)	32%	7
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	14%	18
Skills stock	% of 16-64 population with low qualifications (Below level 2)	44%	67
	% of 16-64 population with high qualifications (Level 4+)	27%	25
	% of 16-34 population with low qualifications (Below level 2)	34%	64
	% of 16-34 population with high qualifications (Level 4+)	32%	7
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	29%	71
	Social security clients (client group analysis) as a % of the population (16-34)	23%	74
	Housing benefit claimants as a % of the population (16-64)	20%	76
	Housing benefit claimants as a % of the population (16-34)	17%	76
	% of households with no adults in employment	40%	67
	% of households with no adults in employment with dependent children	7%	65
	% of households with lone parents with dependent children	12%	72
	% of people employed who are either managers/senior officials or professionals	6%	75
	Employment rate (%, 16-74 population)	60%	55
	Unemployed who have never worked (% of unemployed)	20%	69

	Castle	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	66%	51
	% of school enrolments entitled to FSM	36%	64
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	17%	67
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	66%	75
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	24%	73
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	14%	57
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	27%	23
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	10%	61
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	38%	32
	% of 16-64 population with high qualifications (NQF level 4+)	29%	16
	% of 16-34 population with low qualifications (below NQF level 2)	31%	54
	% of 16-34 population with high qualifications (NQF level 4+)	27%	20
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	28%	67
	Social security clients (client group analysis) as a % of the population (16-34)	20%	63
	Housing benefit claimants as a % of the population (16-64)	17%	72
	Housing benefit claimants as a % of the population (16-34)	13%	69
	% of households with no adults in employment	40%	69
	% of households with no adults in employment with dependent children	6%	58
	% of households with lone parents with dependent children	11%	68
	% of people employed who are either managers/senior officials or professionals	8%	48
	Employment rate (%, 16-74 population)	59%	59
	Unemployed who have never worked (% of unemployed)	18%	64



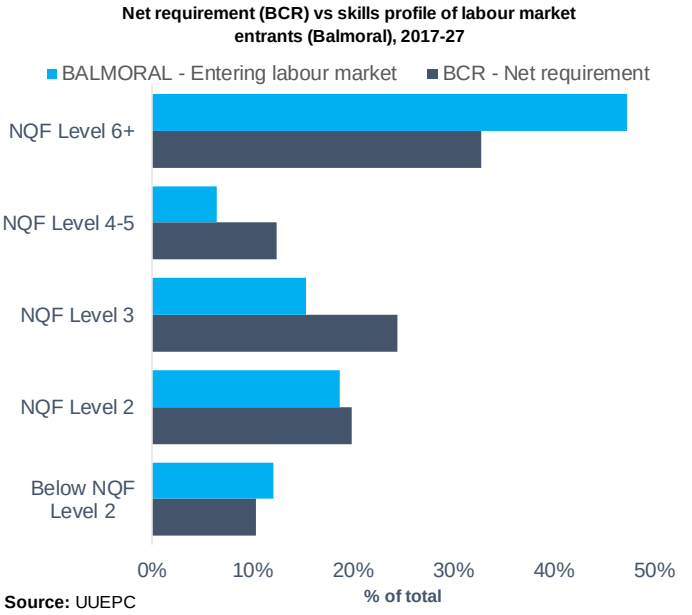
Source: UUEPC



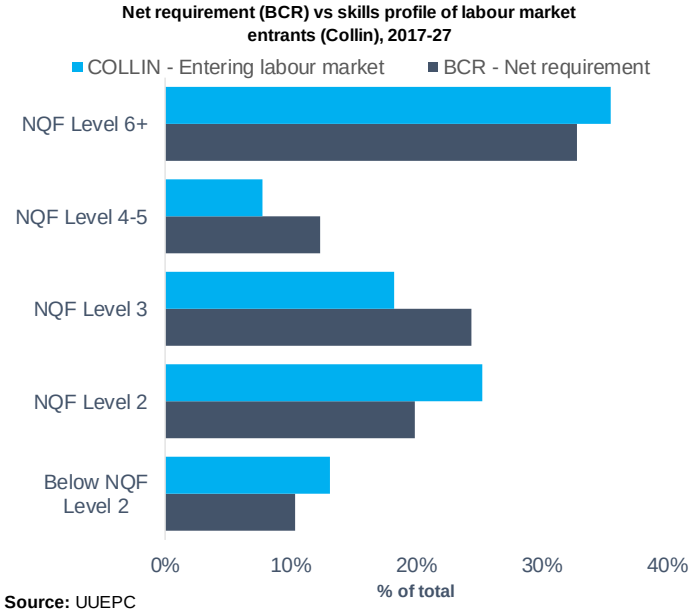
Source: UUEPC

	Ormiston	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	75%	17
	% of school enrolments entitled to FSM	16%	13
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	3%	1
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	59%	54
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	18%	59
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	20%	13
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	33%	6
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	11%	57
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	29%	7
	% of 16-64 population with high qualifications (NQF level 4+)	39%	5
	% of 16-34 population with low qualifications (below NQF level 2)	24%	14
	% of 16-34 population with high qualifications (NQF level 4+)	34%	6
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	15%	11
	Social security clients (client group analysis) as a % of the population (16-34)	11%	18
	Housing benefit claimants as a % of the population (16-64)	7%	24
	Housing benefit claimants as a % of the population (16-34)	5%	25
	% of households with no adults in employment	35%	48
	% of households with no adults in employment with dependent children	3%	11
	% of households with lone parents with dependent children	6%	19
	% of people employed who are either managers/senior officials or professionals	10%	7
	Employment rate (%, 16-74 population)	66%	15
	Unemployed who have never worked (% of unemployed)	12%	20

	Court	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	46%	80
	% of school enrolments entitled to FSM	64%	80
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	22%	76
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	72%	80
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	30%	78
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	6%	79
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	18%	69
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	3%	80
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	58%	80
	% of 16-64 population with high qualifications (NQF level 4+)	12%	80
	% of 16-34 population with low qualifications (below NQF level 2)	46%	80
	% of 16-34 population with high qualifications (NQF level 4+)	14%	80
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	44%	78
	Social security clients (client group analysis) as a % of the population (16-34)	35%	79
	Housing benefit claimants as a % of the population (16-64)	29%	78
	Housing benefit claimants as a % of the population (16-34)	24%	79
	% of households with no adults in employment	53%	79
	% of households with no adults in employment with dependent children	12%	76
	% of households with lone parents with dependent children	17%	76
	% of people employed who are either managers/senior officials or professionals	5%	78
	Employment rate (%, 16-74 population)	46%	79
	Unemployed who have never worked (% of unemployed)	25%	77



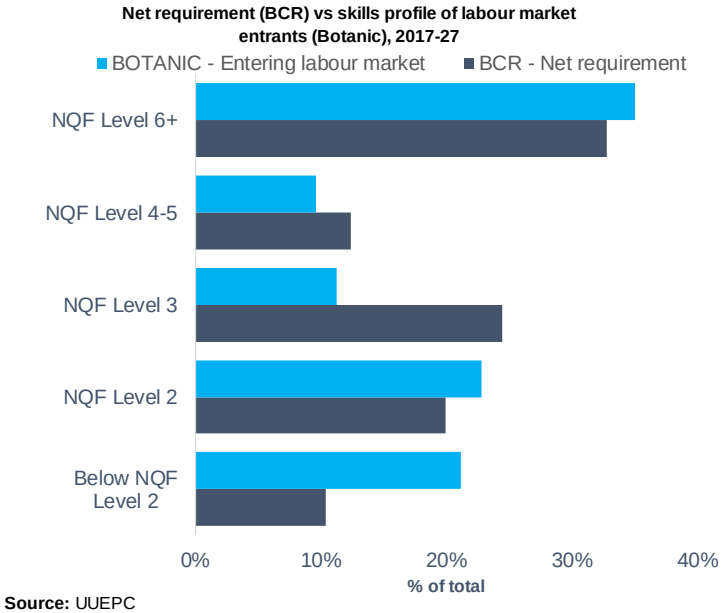
Source: UUEPC



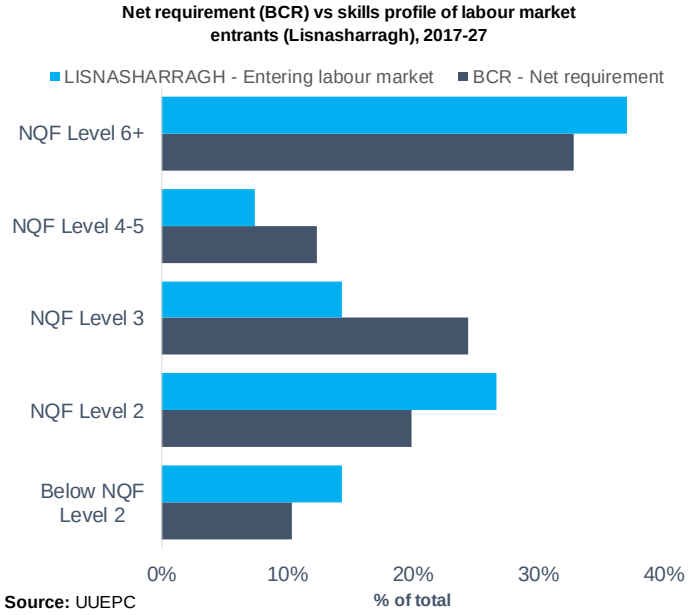
Source: UUEPC

	Balmoral	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	83%	5
	% of school enrolments entitled to FSM	16%	12
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	6%	13
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	58%	53
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	21%	66
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	22%	6
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	41%	2
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	13%	31
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	26%	3
	% of 16-64 population with high qualifications (NQF level 4+)	44%	2
	% of 16-34 population with low qualifications (below NQF level 2)	21%	5
	% of 16-34 population with high qualifications (NQF level 4+)	39%	2
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	17%	17
	Social security clients (client group analysis) as a % of the population (16-34)	10%	13
	Housing benefit claimants as a % of the population (16-64)	7%	31
	Housing benefit claimants as a % of the population (16-34)	5%	21
	% of households with no adults in employment	35%	46
	% of households with no adults in employment with dependent children	3%	12
	% of households with lone parents with dependent children	6%	25
	% of people employed who are either managers/senior officials or professionals	10%	9
	Employment rate (%, 16-74 population)	64%	28
	Unemployed who have never worked (% of unemployed)	13%	30

	Collin	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	61%	70
	% of school enrolments entitled to FSM	47%	74
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	19%	70
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	55%	35
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	14%	44
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	13%	62
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	24%	39
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	71
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	43%	59
	% of 16-64 population with high qualifications (NQF level 4+)	21%	69
	% of 16-34 population with low qualifications (below NQF level 2)	33%	61
	% of 16-34 population with high qualifications (NQF level 4+)	21%	69
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	33%	75
	Social security clients (client group analysis) as a % of the population (16-34)	25%	75
	Housing benefit claimants as a % of the population (16-64)	17%	73
	Housing benefit claimants as a % of the population (16-34)	14%	71
	% of households with no adults in employment	39%	63
	% of households with no adults in employment with dependent children	14%	78
	% of households with lone parents with dependent children	21%	80
	% of people employed who are either managers/senior officials or professionals	6%	73
	Employment rate (%, 16-74 population)	54%	71
	Unemployed who have never worked (% of unemployed)	23%	75



Source: UUEPC

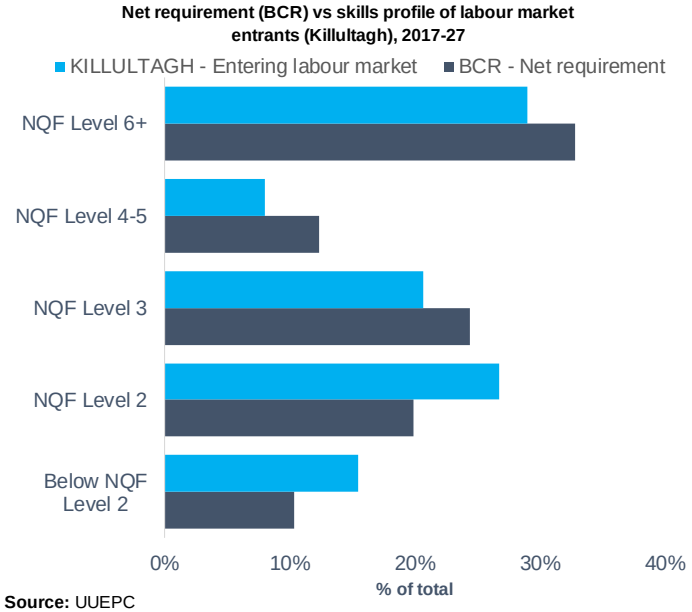


Source: UUEPC

	Botanic	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	66%	52
	% of school enrolments entitled to FSM	42%	72
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	16%	61
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	66%	73
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	30%	80
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	4%	80
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	54%	1
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	11%	53
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	23%	2
	% of 16-64 population with high qualifications (NQF level 4+)	38%	7
	% of 16-34 population with low qualifications (below NQF level 2)	15%	1
	% of 16-34 population with high qualifications (NQF level 4+)	36%	4
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	16%	16
	Social security clients (client group analysis) as a % of the population (16-34)	8%	7
	Housing benefit claimants as a % of the population (16-64)	12%	56
	Housing benefit claimants as a % of the population (16-34)	6%	32
	% of households with no adults in employment	32%	24
	% of households with no adults in employment with dependent children	4%	28
	% of households with lone parents with dependent children	6%	22
	% of people employed who are either managers/senior officials or professionals	6%	76
	Employment rate (%, 16-74 population)	61%	48
	Unemployed who have never worked (% of unemployed)	18%	65

	Lisnasharragh	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	77%	11
	% of school enrolments entitled to FSM	19%	20
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	8%	26
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	64%	67
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	20%	64
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	20%	15
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	38%	3
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	10%	64
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	27%	5
	% of 16-64 population with high qualifications (NQF level 4+)	43%	3
	% of 16-34 population with low qualifications (below NQF level 2)	20%	3
	% of 16-34 population with high qualifications (NQF level 4+)	44%	1
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	15%	10
	Social security clients (client group analysis) as a % of the population (16-34)	12%	26
	Housing benefit claimants as a % of the population (16-64)	6%	21
	Housing benefit claimants as a % of the population (16-34)	5%	24
	% of households with no adults in employment	32%	28
	% of households with no adults in employment with dependent children	3%	8
	% of households with lone parents with dependent children	6%	11
	% of people employed who are either managers/senior officials or professionals	8%	40
	Employment rate (%, 16-74 population)	69%	5
	Unemployed who have never worked (% of unemployed)	14%	38

Annex M3: DEA scorecards, Lisburn & Castlereagh



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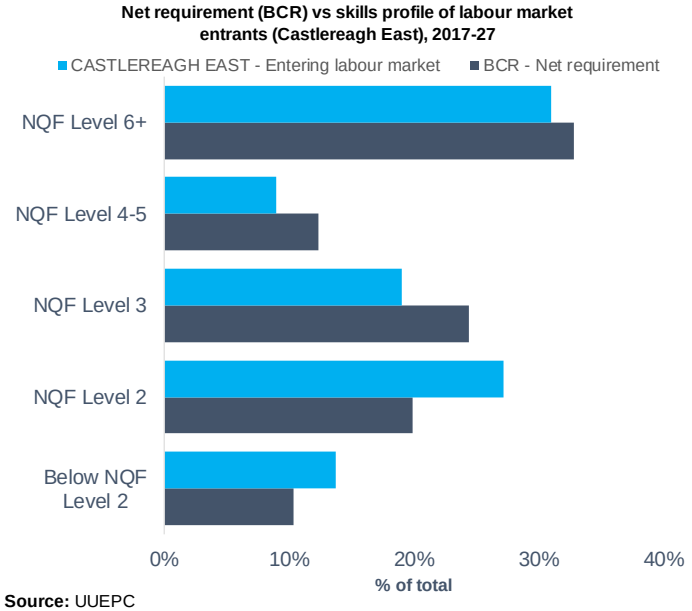
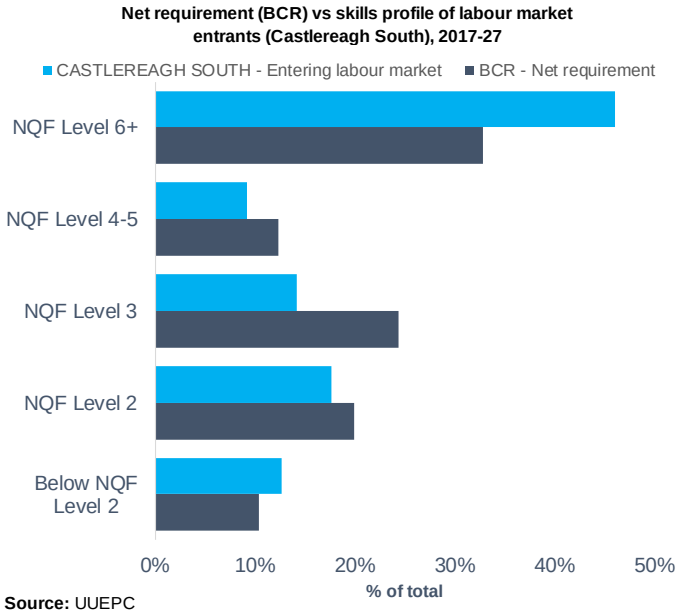


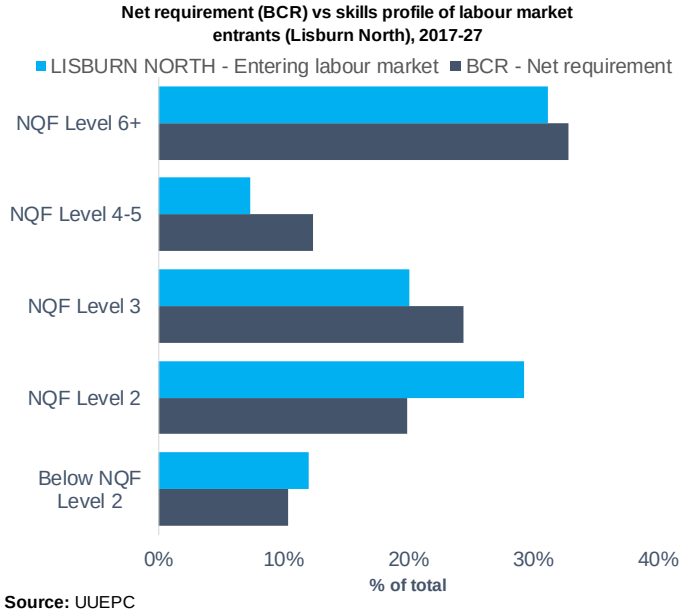
Source: UUEPC

	Killultagh	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	80%	8
	% of school enrolments entitled to FSM	11%	5
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	5%	8
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	56%	45
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	19%	62
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	17%	27
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	31%	9
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	12%	42
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	29%	10
	% of 16-64 population with high qualifications (NQF level 4+)	32%	10
	% of 16-34 population with low qualifications (below NQF level 2)	21%	4
	% of 16-34 population with high qualifications (NQF level 4+)	32%	9
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	12%	2
	Social security clients (client group analysis) as a % of the population (16-34)	9%	9
	Housing benefit claimants as a % of the population (16-64)	2%	1
	Housing benefit claimants as a % of the population (16-34)	3%	3
	% of households with no adults in employment	19%	1
	% of households with no adults in employment with dependent children	2%	6
	% of households with lone parents with dependent children	6%	16
	% of people employed who are either managers/senior officials or professionals	11%	5
	Employment rate (%, 16-74 population)	72%	1
	Unemployed who have never worked (% of unemployed)	12%	18

	Castlereagh East	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	74%	18
	% of school enrolments entitled to FSM	19%	23
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	8%	22
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	56%	46
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	17%	53
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	15%	43
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	24%	40
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	11%	50
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	35%	27
	% of 16-64 population with high qualifications (NQF level 4+)	26%	29
	% of 16-34 population with low qualifications (below NQF level 2)	27%	30
	% of 16-34 population with high qualifications (NQF level 4+)	26%	30
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	18%	24
	Social security clients (client group analysis) as a % of the population (16-34)	12%	29
	Housing benefit claimants as a % of the population (16-64)	7%	27
	Housing benefit claimants as a % of the population (16-34)	6%	29
	% of households with no adults in employment	33%	31
	% of households with no adults in employment with dependent children	3%	17
	% of households with lone parents with dependent children	7%	33
	% of people employed who are either managers/senior officials or professionals	8%	33
	Employment rate (%, 16-74 population)	66%	13
	Unemployed who have never worked (% of unemployed)	15%	47



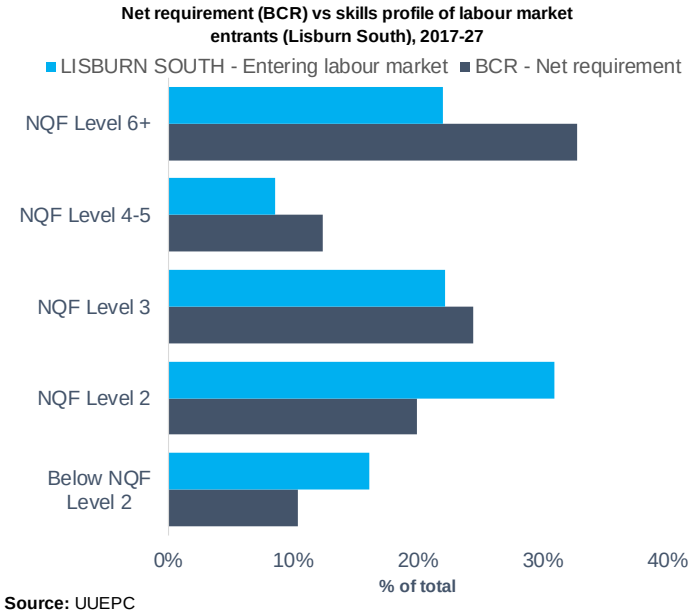
Source: UUEPC



Source: UUEPC

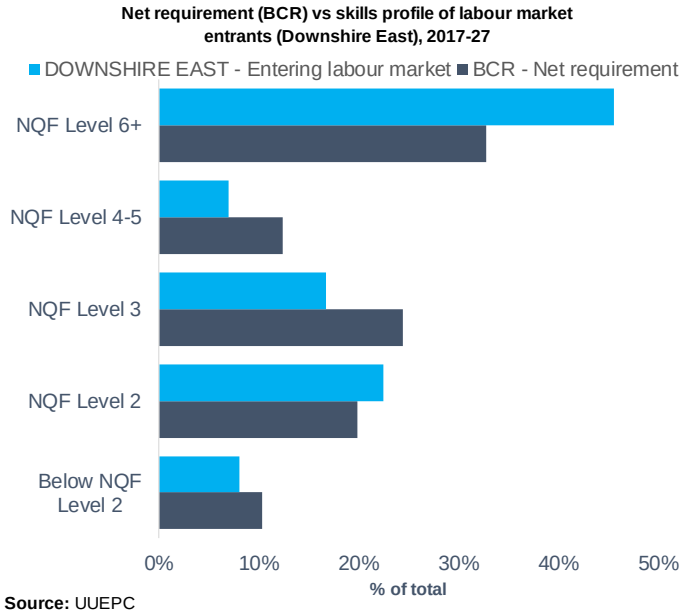
	Castlereagh South	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	82%	6
	% of school enrolments entitled to FSM	11%	3
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	6%	12
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	56%	41
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	22%	67
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	30%	1
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	33%	4
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	12%	40
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	22%	1
	% of 16-64 population with high qualifications (NQF level 4+)	46%	1
	% of 16-34 population with low qualifications (below NQF level 2)	18%	2
	% of 16-34 population with high qualifications (NQF level 4+)	39%	3
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	11%	1
	Social security clients (client group analysis) as a % of the population (16-34)	6%	1
	Housing benefit claimants as a % of the population (16-64)	3%	2
	Housing benefit claimants as a % of the population (16-34)	2%	1
	% of households with no adults in employment	26%	4
	% of households with no adults in employment with dependent children	2%	1
	% of households with lone parents with dependent children	5%	6
	% of people employed who are either managers/senior officials or professionals	10%	11
	Employment rate (%, 16-74 population)	70%	3
	Unemployed who have never worked (% of unemployed)	11%	4

	Lisburn North	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	71%	27
	% of school enrolments entitled to FSM	19%	22
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	8%	27
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	55%	38
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	15%	45
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	14%	56
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	30%	12
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	78
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	35%	24
	% of 16-64 population with high qualifications (NQF level 4+)	29%	20
	% of 16-34 population with low qualifications (below NQF level 2)	29%	39
	% of 16-34 population with high qualifications (NQF level 4+)	25%	33
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	18%	26
	Social security clients (client group analysis) as a % of the population (16-34)	14%	44
	Housing benefit claimants as a % of the population (16-64)	9%	40
	Housing benefit claimants as a % of the population (16-34)	8%	51
	% of households with no adults in employment	36%	50
	% of households with no adults in employment with dependent children	3%	18
	% of households with lone parents with dependent children	7%	31
	% of people employed who are either managers/senior officials or professionals	9%	19
	Employment rate (%, 16-74 population)	64%	24
	Unemployed who have never worked (% of unemployed)	11%	12



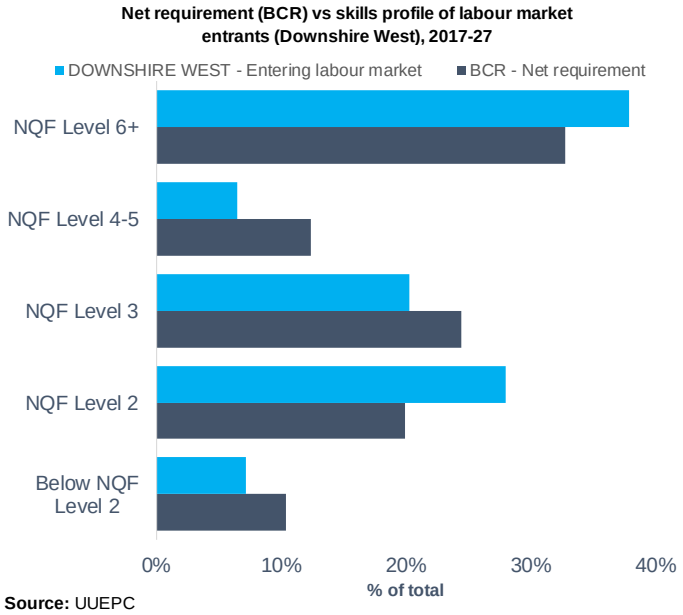
Source: UUEPC

	Lisburn South	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	67%	41
	% of school enrolments entitled to FSM	30%	50
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	15%	59
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	55%	37
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	16%	52
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	11%	72
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	26%	24
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	74
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	44%	64
	% of 16-64 population with high qualifications (NQF level 4+)	22%	63
	% of 16-34 population with low qualifications (below NQF level 2)	36%	72
	% of 16-34 population with high qualifications (NQF level 4+)	22%	57
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	23%	58
	Social security clients (client group analysis) as a % of the population (16-34)	22%	70
	Housing benefit claimants as a % of the population (16-64)	14%	67
	Housing benefit claimants as a % of the population (16-34)	15%	74
	% of households with no adults in employment	37%	57
	% of households with no adults in employment with dependent children	6%	57
	% of households with lone parents with dependent children	11%	70
	% of people employed who are either managers/senior officials or professionals	7%	66
	Employment rate (%, 16-74 population)	61%	43
	Unemployed who have never worked (% of unemployed)	12%	22



Source: UUEPC

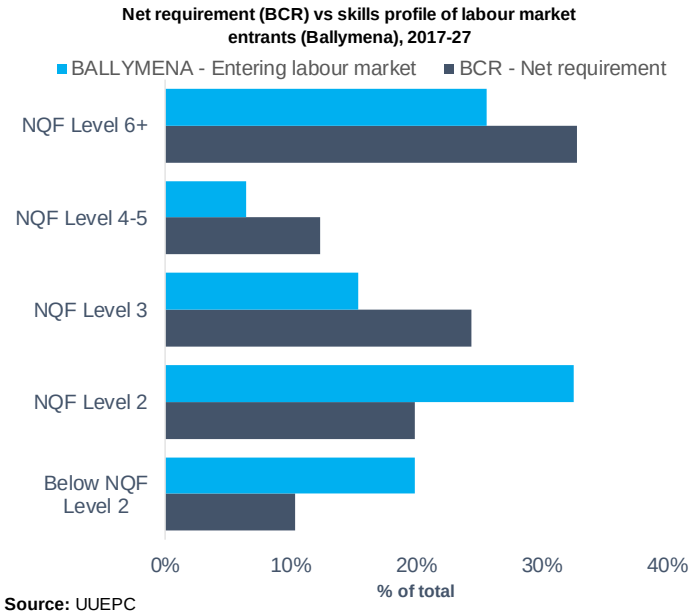
	Downshire East	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	87%	2
	% of school enrolments entitled to FSM	11%	4
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	4%	4
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	56%	40
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	13%	39
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	25%	2
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	29%	16
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	13%	32
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	27%	6
	% of 16-64 population with high qualifications (NQF level 4+)	37%	8
	% of 16-34 population with low qualifications (below NQF level 2)	22%	7
	% of 16-34 population with high qualifications (NQF level 4+)	30%	13
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	12%	4
	Social security clients (client group analysis) as a % of the population (16-34)	7%	2
	Housing benefit claimants as a % of the population (16-64)	4%	6
	Housing benefit claimants as a % of the population (16-34)	3%	5
	% of households with no adults in employment	30%	12
	% of households with no adults in employment with dependent children	2%	7
	% of households with lone parents with dependent children	5%	3
	% of people employed who are either managers/senior officials or professionals	13%	2
	Employment rate (%, 16-74 population)	66%	12
	Unemployed who have never worked (% of unemployed)	11%	8



Source: UUEPC

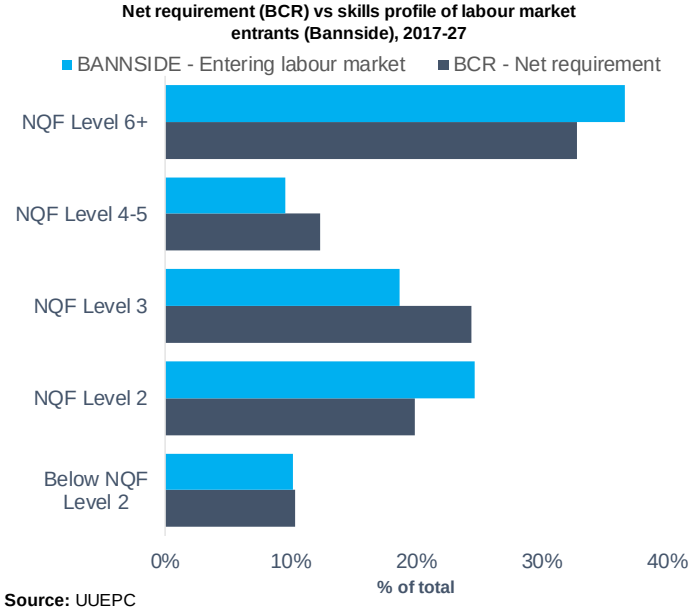
	Downshire West	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	88%	1
	% of school enrolments entitled to FSM	8%	1
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	4%	3
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	54%	28
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	10%	18
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	24%	3
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	29%	15
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	16%	9
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	29%	9
	% of 16-64 population with high qualifications (NQF level 4+)	39%	6
	% of 16-34 population with low qualifications (below NQF level 2)	23%	11
	% of 16-34 population with high qualifications (NQF level 4+)	34%	5
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	12%	3
	Social security clients (client group analysis) as a % of the population (16-34)	8%	4
	Housing benefit claimants as a % of the population (16-64)	4%	3
	Housing benefit claimants as a % of the population (16-34)	4%	13
	% of households with no adults in employment	29%	11
	% of households with no adults in employment with dependent children	2%	2
	% of households with lone parents with dependent children	4%	2
	% of people employed who are either managers/senior officials or professionals	12%	3
	Employment rate (%, 16-74 population)	68%	7
	Unemployed who have never worked (% of unemployed)	10%	3

Annex M4: DEA scorecards, Mid & East Antrim



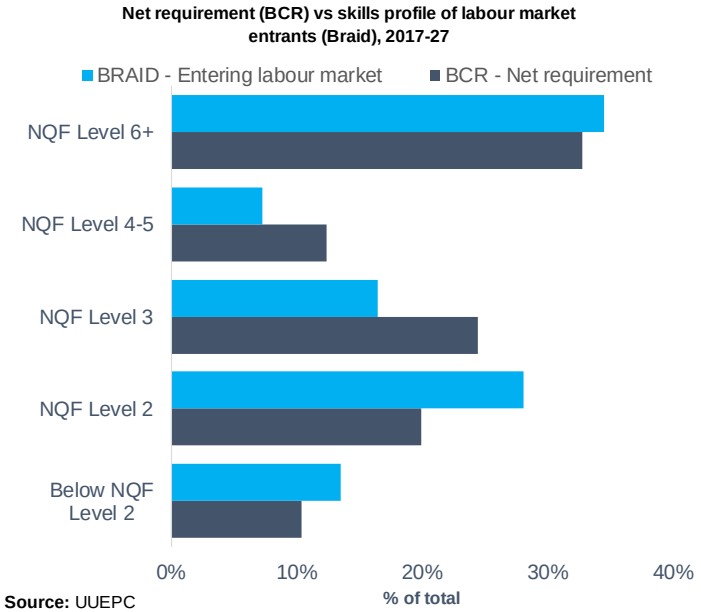
Source: UUEPC

	Ballymena	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	64%	59
	% of school enrolments entitled to FSM	30%	54
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	12%	44
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	67%	76
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	22%	70
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	13%	66
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	19%	64
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	16%	7
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	45%	69
	% of 16-64 population with high qualifications (NQF level 4+)	23%	56
	% of 16-34 population with low qualifications (below NQF level 2)	39%	77
	% of 16-34 population with high qualifications (NQF level 4+)	21%	68
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	23%	57
	Social security clients (client group analysis) as a % of the population (16-34)	23%	71
	Housing benefit claimants as a % of the population (16-64)	13%	62
	Housing benefit claimants as a % of the population (16-34)	13%	70
	% of households with no adults in employment	37%	59
	% of households with no adults in employment with dependent children	5%	46
	% of households with lone parents with dependent children	9%	52
	% of people employed who are either managers/senior officials or professionals	8%	44
	Employment rate (%, 16-74 population)	61%	47
	Unemployed who have never worked (% of unemployed)	15%	43



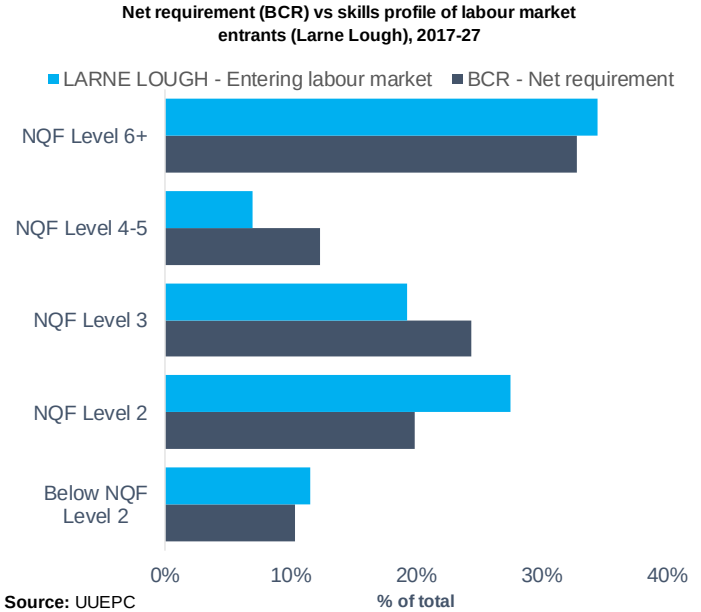
Source: UUEPC

	Bannside	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	74%	19
	% of school enrolments entitled to FSM	16%	14
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	7%	19
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	51%	20
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	12%	34
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	16%	34
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	29%	16
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	15%	10
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	35%	26
	% of 16-64 population with high qualifications (NQF level 4+)	26%	28
	% of 16-34 population with low qualifications (below NQF level 2)	24%	12
	% of 16-34 population with high qualifications (NQF level 4+)	27%	24
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	16%	14
	Social security clients (client group analysis) as a % of the population (16-34)	11%	17
	Housing benefit claimants as a % of the population (16-64)	5%	13
	Housing benefit claimants as a % of the population (16-34)	4%	16
	% of households with no adults in employment	29%	9
	% of households with no adults in employment with dependent children	3%	10
	% of households with lone parents with dependent children	6%	13
	% of people employed who are either managers/senior officials or professionals	8%	34
	Employment rate (%, 16-74 population)	67%	9
	Unemployed who have never worked (% of unemployed)	11%	6



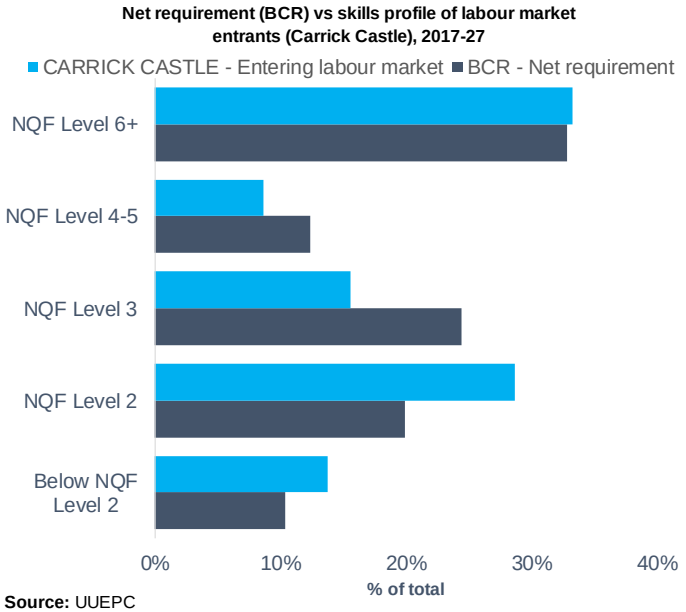
Source: UUEPC

	Braid	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	73%	25
	% of school enrolments entitled to FSM	19%	21
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	8%	25
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	59%	55
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	17%	54
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	15%	41
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	23%	47
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	10%	65
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	38%	31
	% of 16-64 population with high qualifications (NQF level 4+)	25%	43
	% of 16-34 population with low qualifications (below NQF level 2)	26%	24
	% of 16-34 population with high qualifications (NQF level 4+)	24%	39
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	17%	18
	Social security clients (client group analysis) as a % of the population (16-34)	11%	19
	Housing benefit claimants as a % of the population (16-64)	6%	22
	Housing benefit claimants as a % of the population (16-34)	5%	23
	% of households with no adults in employment	30%	17
	% of households with no adults in employment with dependent children	3%	20
	% of households with lone parents with dependent children	6%	27
	% of people employed who are either managers/senior officials or professionals	8%	25
	Employment rate (%, 16-74 population)	66%	10
	Unemployed who have never worked (% of unemployed)	12%	13



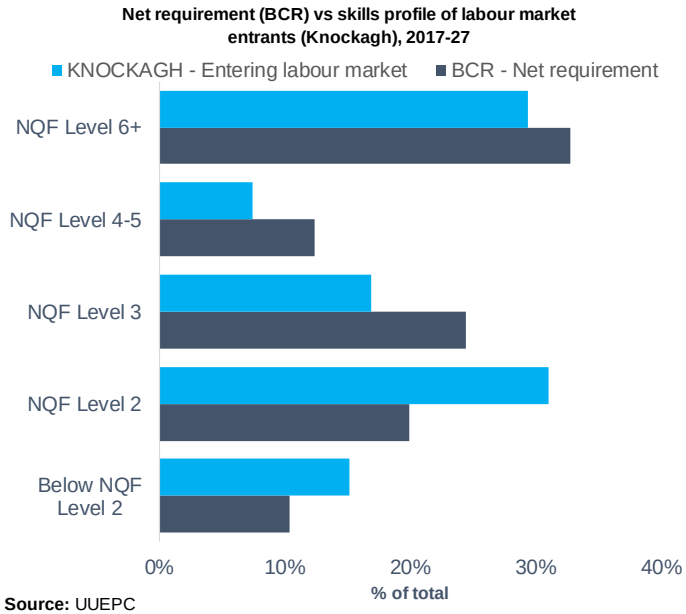
Source: UUEPC

	Larne Lough	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	67%	46
	% of school enrolments entitled to FSM	17%	16
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	6%	14
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	54%	32
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	12%	30
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	17%	28
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	26%	24
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	13%	37
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	33%	17
	% of 16-64 population with high qualifications (NQF level 4+)	28%	24
	% of 16-34 population with low qualifications (below NQF level 2)	25%	16
	% of 16-34 population with high qualifications (NQF level 4+)	24%	38
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	18%	28
	Social security clients (client group analysis) as a % of the population (16-34)	13%	32
	Housing benefit claimants as a % of the population (16-64)	8%	33
	Housing benefit claimants as a % of the population (16-34)	7%	43
	% of households with no adults in employment	33%	35
	% of households with no adults in employment with dependent children	3%	16
	% of households with lone parents with dependent children	7%	32
	% of people employed who are either managers/senior officials or professionals	9%	14
	Employment rate (%, 16-74 population)	65%	17
	Unemployed who have never worked (% of unemployed)	11%	11



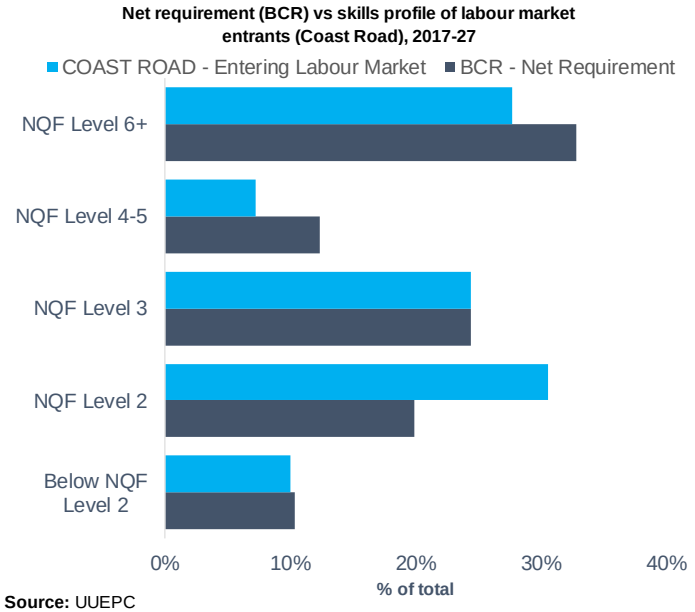
Source: UUEPC

	Carrick Castle	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	65%	58
	% of school enrolments entitled to FSM	21%	26
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	8%	21
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	60%	58
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	14%	42
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	15%	42
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	29%	16
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	14%	20
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	36%	30
	% of 16-64 population with high qualifications (NQF level 4+)	24%	44
	% of 16-34 population with low qualifications (below NQF level 2)	27%	32
	% of 16-34 population with high qualifications (NQF level 4+)	24%	43
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	21%	40
	Social security clients (client group analysis) as a % of the population (16-34)	13%	35
	Housing benefit claimants as a % of the population (16-64)	9%	42
	Housing benefit claimants as a % of the population (16-34)	7%	41
	% of households with no adults in employment	35%	45
	% of households with no adults in employment with dependent children	4%	23
	% of households with lone parents with dependent children	8%	44
	% of people employed who are either managers/senior officials or professionals	8%	38
	Employment rate (%, 16-74 population)	64%	31
	Unemployed who have never worked (% of unemployed)	12%	19



Source: UUEPC

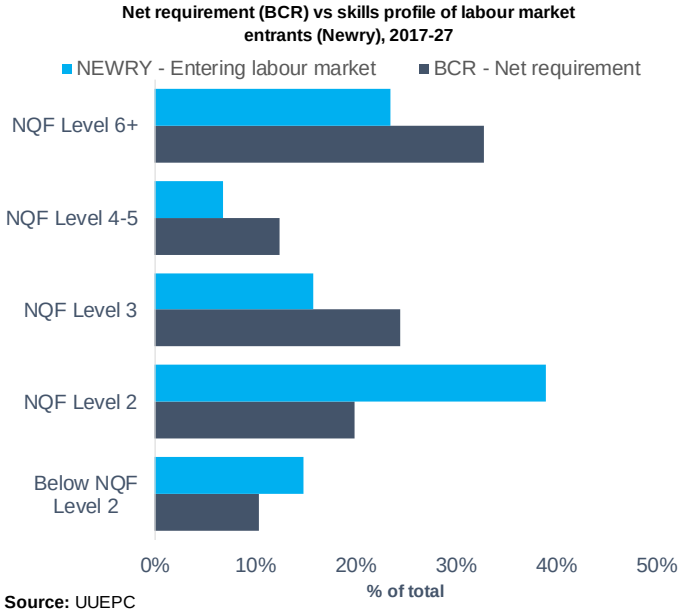
	Knockagh	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	68%	38
	% of school enrolments entitled to FSM	24%	38
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	7%	17
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	60%	57
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	15%	46
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	13%	60
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	32%	8
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	13%	35
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	36%	28
	% of 16-64 population with high qualifications (NQF level 4+)	25%	35
	% of 16-34 population with low qualifications (below NQF level 2)	28%	38
	% of 16-34 population with high qualifications (NQF level 4+)	23%	46
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	20%	37
	Social security clients (client group analysis) as a % of the population (16-34)	17%	56
	Housing benefit claimants as a % of the population (16-64)	9%	43
	Housing benefit claimants as a % of the population (16-34)	10%	57
	% of households with no adults in employment	33%	30
	% of households with no adults in employment with dependent children	5%	44
	% of households with lone parents with dependent children	11%	69
	% of people employed who are either managers/senior officials or professionals	9%	20
	Employment rate (%, 16-74 population)	64%	29
	Unemployed who have never worked (% of unemployed)	16%	50



Source: UUEPC

	Coast Road	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	65%	54
	% of school enrolments entitled to FSM	31%	56
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	10%	36
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	49%	12
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	12%	31
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	12%	71
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	24%	44
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	15%	10
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	40%	45
	% of 16-64 population with high qualifications (NQF level 4+)	20%	70
	% of 16-34 population with low qualifications (below NQF level 2)	31%	52
	% of 16-34 population with high qualifications (NQF level 4+)	19%	75
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	24%	60
	Social security clients (client group analysis) as a % of the population (16-34)	20%	64
	Housing benefit claimants as a % of the population (16-64)	12%	60
	Housing benefit claimants as a % of the population (16-34)	12%	63
	% of households with no adults in employment	39%	66
	% of households with no adults in employment with dependent children	5%	42
	% of households with lone parents with dependent children	10%	60
	% of people employed who are either managers/senior officials or professionals	7%	56
	Employment rate (%, 16-74 population)	60%	53
	Unemployed who have never worked (% of unemployed)	14%	39

Annex M5: DEA scorecards, Newry, Mourne & Down



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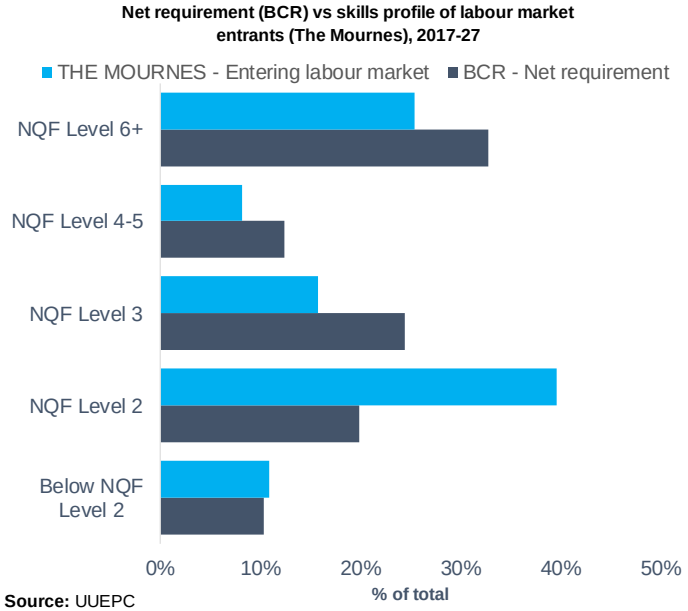
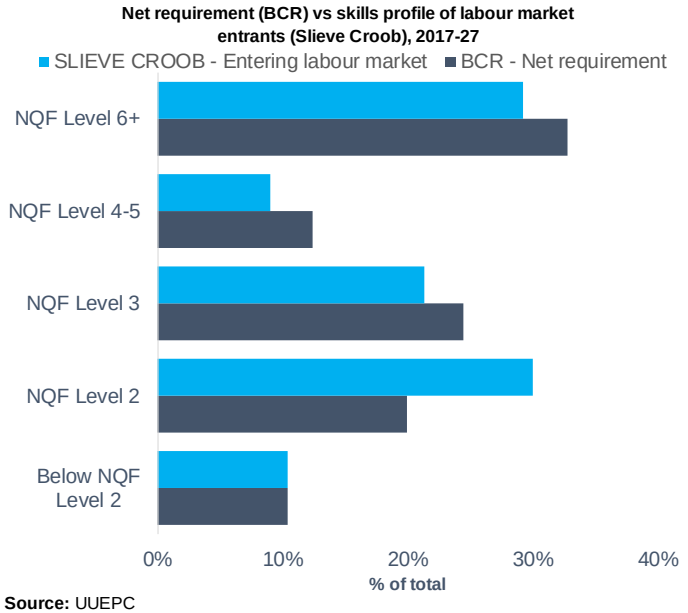


Source: UUEPC

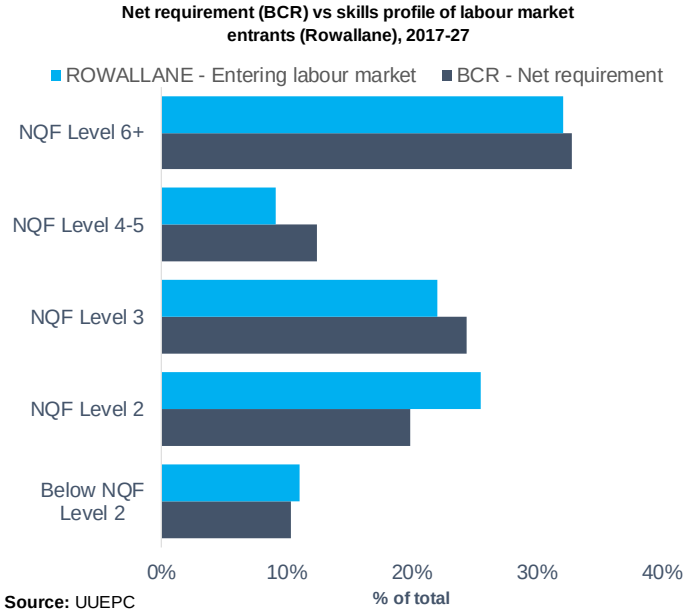
	Newry	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	67%	40
	% of school enrolments entitled to FSM	38%	68
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	12%	46
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	68%	77
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	16%	51
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	16%	39
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	24%	41
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	15%	13
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	43%	62
	% of 16-64 population with high qualifications (NQF level 4+)	23%	49
	% of 16-34 population with low qualifications (below NQF level 2)	35%	69
	% of 16-34 population with high qualifications (NQF level 4+)	22%	53
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	26%	64
	Social security clients (client group analysis) as a % of the population (16-34)	17%	58
	Housing benefit claimants as a % of the population (16-64)	13%	61
	Housing benefit claimants as a % of the population (16-34)	9%	56
	% of households with no adults in employment	38%	62
	% of households with no adults in employment with dependent children	8%	68
	% of households with lone parents with dependent children	11%	64
	% of people employed who are either managers/senior officials or professionals	8%	36
	Employment rate (%, 16-74 population)	57%	67
	Unemployed who have never worked (% of unemployed)	14%	33

	The Mournes	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	68%	37
	% of school enrolments entitled to FSM	29%	49
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	13%	49
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	65%	69
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	10%	21
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	15%	47
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	20%	55
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	12%	44
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	40%	44
	% of 16-64 population with high qualifications (NQF level 4+)	22%	57
	% of 16-34 population with low qualifications (below NQF level 2)	30%	50
	% of 16-34 population with high qualifications (NQF level 4+)	22%	60
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	23%	52
	Social security clients (client group analysis) as a % of the population (16-34)	14%	48
	Housing benefit claimants as a % of the population (16-64)	9%	49
	Housing benefit claimants as a % of the population (16-34)	7%	44
	% of households with no adults in employment	37%	60
	% of households with no adults in employment with dependent children	6%	53
	% of households with lone parents with dependent children	7%	37
	% of people employed who are either managers/senior officials or professionals	7%	53
	Employment rate (%, 16-74 population)	60%	54
	Unemployed who have never worked (% of unemployed)	14%	35



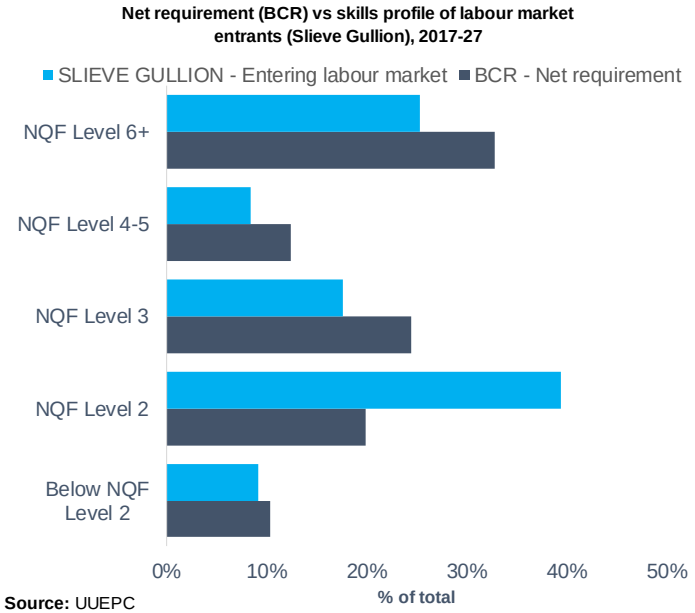
Source: UUEPC

	Slieve Croob	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	68%	36
	% of school enrolments entitled to FSM	23%	34
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	8%	23
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	52%	23
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	10%	19
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	15%	45
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	19%	63
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	71
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	34%	22
	% of 16-64 population with high qualifications (NQF level 4+)	26%	33
	% of 16-34 population with low qualifications (below NQF level 2)	26%	27
	% of 16-34 population with high qualifications (NQF level 4+)	22%	54
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	19%	33
	Social security clients (client group analysis) as a % of the population (16-34)	13%	34
	Housing benefit claimants as a % of the population (16-64)	7%	25
	Housing benefit claimants as a % of the population (16-34)	5%	20
	% of households with no adults in employment	31%	20
	% of households with no adults in employment with dependent children	5%	40
	% of households with lone parents with dependent children	8%	38
	% of people employed who are either managers/senior officials or professionals	8%	30
	Employment rate (%, 16-74 population)	64%	21
	Unemployed who have never worked (% of unemployed)	13%	28



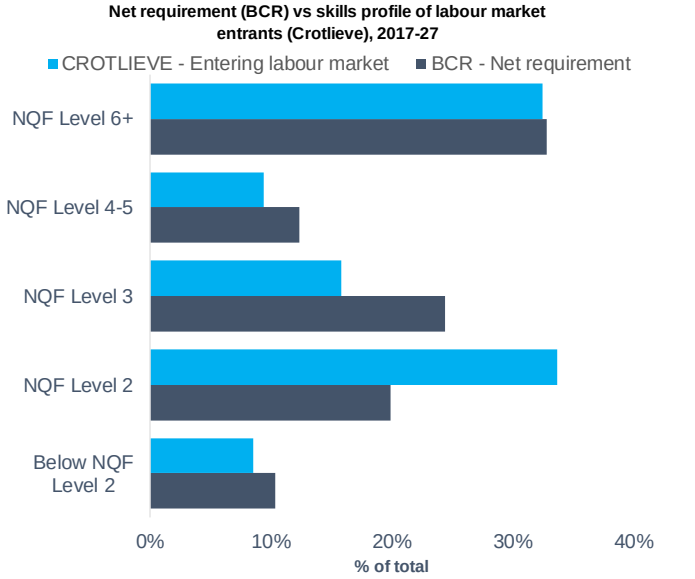
Source: UUEPC

	Rowallane	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	71%	29
	% of school enrolments entitled to FSM	19%	19
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	9%	34
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	50%	15
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	11%	27
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	18%	21
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	30%	12
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	11%	53
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	33%	19
	% of 16-64 population with high qualifications (NQF level 4+)	28%	22
	% of 16-34 population with low qualifications (below NQF level 2)	26%	26
	% of 16-34 population with high qualifications (NQF level 4+)	24%	36
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	17%	20
	Social security clients (client group analysis) as a % of the population (16-34)	11%	21
	Housing benefit claimants as a % of the population (16-64)	7%	30
	Housing benefit claimants as a % of the population (16-34)	6%	27
	% of households with no adults in employment	31%	23
	% of households with no adults in employment with dependent children	4%	24
	% of households with lone parents with dependent children	7%	34
	% of people employed who are either managers/senior officials or professionals	9%	18
	Employment rate (%, 16-74 population)	65%	20
	Unemployed who have never worked (% of unemployed)	13%	31



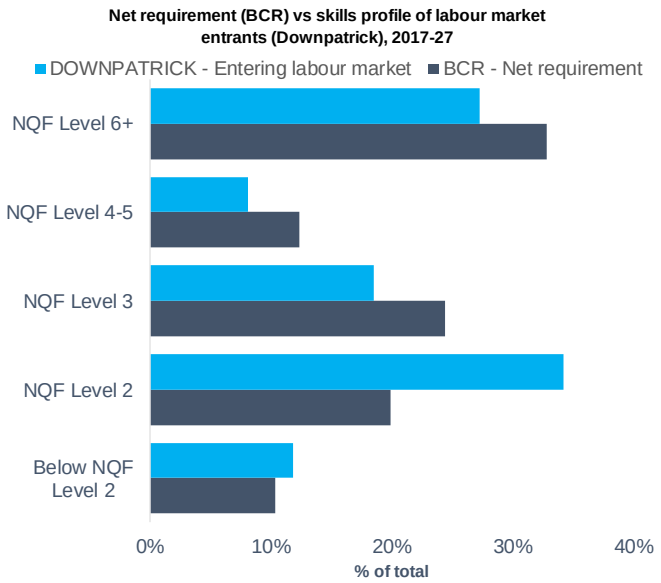
Source: UUEPC

	Slieve Gullion	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	66%	50
	% of school enrolments entitled to FSM	37%	65
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	20%	72
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	61%	60
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	7%	6
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	19%	19
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	17%	72
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	14%	29
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	42%	54
	% of 16-64 population with high qualifications (NQF level 4+)	22%	62
	% of 16-34 population with low qualifications (below NQF level 2)	30%	48
	% of 16-34 population with high qualifications (NQF level 4+)	23%	48
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	24%	61
	Social security clients (client group analysis) as a % of the population (16-34)	16%	51
	Housing benefit claimants as a % of the population (16-64)	9%	45
	Housing benefit claimants as a % of the population (16-34)	8%	52
	% of households with no adults in employment	37%	55
	% of households with no adults in employment with dependent children	9%	73
	% of households with lone parents with dependent children	11%	63
	% of people employed who are either managers/senior officials or professionals	7%	52
	Employment rate (%, 16-74 population)	57%	68
	Unemployed who have never worked (% of unemployed)	17%	55



Source: UUEPC

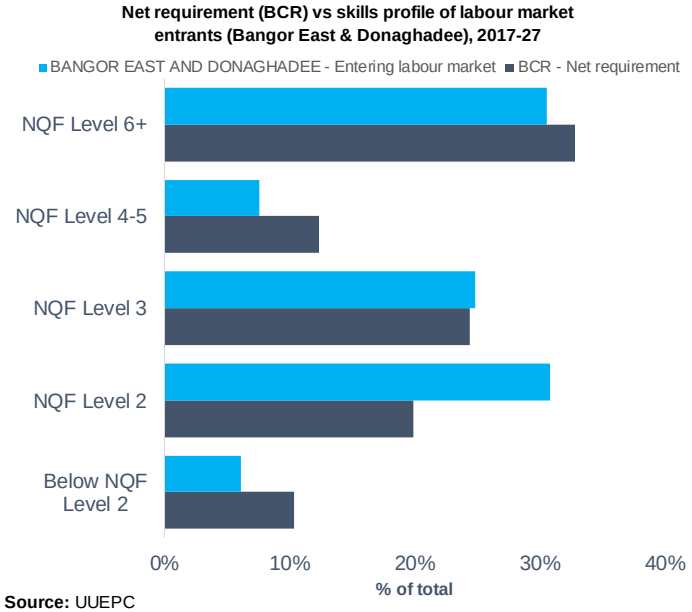
	Crotlieve	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	78%	9
	% of school enrolments entitled to FSM	23%	36
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	13%	47
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	61%	63
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	9%	17
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	21%	11
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	20%	58
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	76
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	35%	25
	% of 16-64 population with high qualifications (NQF level 4+)	28%	21
	% of 16-34 population with low qualifications (below NQF level 2)	25%	18
	% of 16-34 population with high qualifications (NQF level 4+)	27%	25
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	18%	29
	Social security clients (client group analysis) as a % of the population (16-34)	11%	23
	Housing benefit claimants as a % of the population (16-64)	6%	19
	Housing benefit claimants as a % of the population (16-34)	4%	18
	% of households with no adults in employment	30%	19
	% of households with no adults in employment with dependent children	6%	54
	% of households with lone parents with dependent children	8%	39
	% of people employed who are either managers/senior officials or professionals	9%	13
	Employment rate (%, 16-74 population)	61%	42
	Unemployed who have never worked (% of unemployed)	12%	17



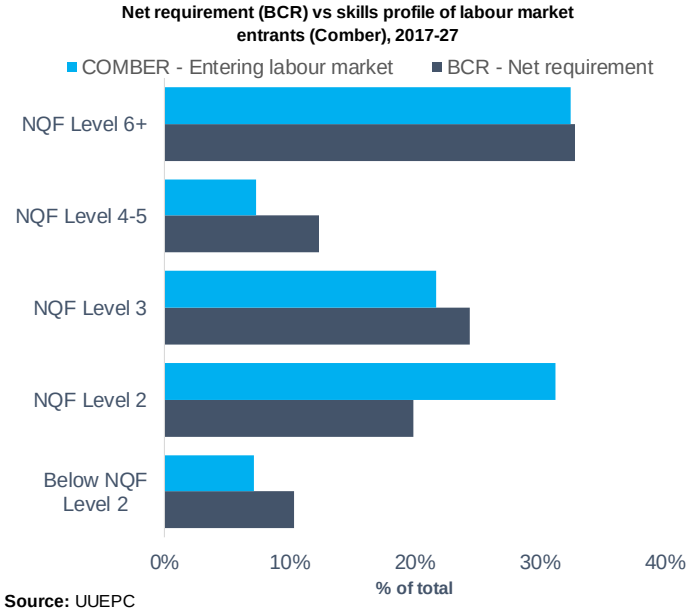
Source: UUEPC

	Downpatrick	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	66%	47
	% of school enrolments entitled to FSM	30%	51
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	11%	40
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	61%	62
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	12%	32
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	15%	49
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	21%	53
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	11%	50
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	36%	29
	% of 16-64 population with high qualifications (NQF level 4+)	26%	30
	% of 16-34 population with low qualifications (below NQF level 2)	29%	41
	% of 16-34 population with high qualifications (NQF level 4+)	21%	70
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	27%	65
	Social security clients (client group analysis) as a % of the population (16-34)	22%	69
	Housing benefit claimants as a % of the population (16-64)	13%	63
	Housing benefit claimants as a % of the population (16-34)	12%	66
	% of households with no adults in employment	37%	56
	% of households with no adults in employment with dependent children	6%	59
	% of households with lone parents with dependent children	11%	65
	% of people employed who are either managers/senior officials or professionals	8%	24
	Employment rate (%, 16-74 population)	59%	60
	Unemployed who have never worked (% of unemployed)	18%	59

Annex M6: DEA scorecards, Ards and North Down



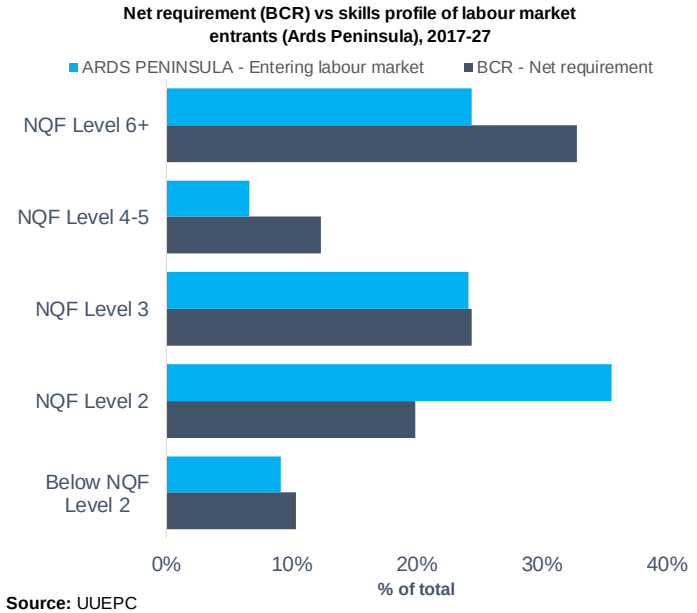
Source: UUEPC



Source: UUEPC

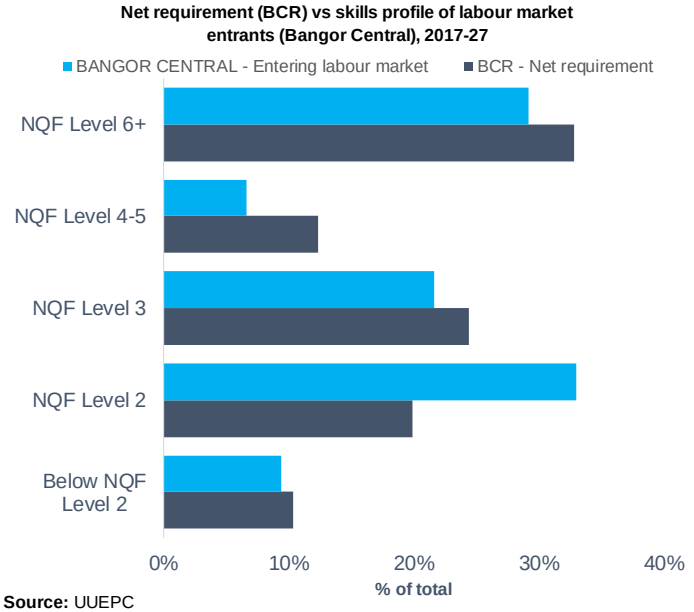
	Bangor East And Donaghadee	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	80%	7
	% of school enrolments entitled to FSM	15%	9
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	7%	18
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	50%	14
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	6%	2
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	18%	22
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	22%	50
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	70
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	29%	8
	% of 16-64 population with high qualifications (NQF level 4+)	31%	13
	% of 16-34 population with low qualifications (below NQF level 2)	22%	6
	% of 16-34 population with high qualifications (NQF level 4+)	28%	16
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	15%	9
	Social security clients (client group analysis) as a % of the population (16-34)	10%	10
	Housing benefit claimants as a % of the population (16-64)	4%	8
	Housing benefit claimants as a % of the population (16-34)	3%	6
	% of households with no adults in employment	34%	37
	% of households with no adults in employment with dependent children	2%	4
	% of households with lone parents with dependent children	6%	14
	% of people employed who are either managers/senior officials or professionals	10%	6
	Employment rate (%, 16-74 population)	64%	25
	Unemployed who have never worked (% of unemployed)	9%	2

	Comber	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	76%	13
	% of school enrolments entitled to FSM	12%	6
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	4%	7
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	52%	25
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	8%	7
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	19%	17
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	28%	19
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	14%	20
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	32%	14
	% of 16-64 population with high qualifications (NQF level 4+)	29%	18
	% of 16-34 population with low qualifications (below NQF level 2)	23%	10
	% of 16-34 population with high qualifications (NQF level 4+)	28%	18
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	14%	7
	Social security clients (client group analysis) as a % of the population (16-34)	10%	15
	Housing benefit claimants as a % of the population (16-64)	5%	12
	Housing benefit claimants as a % of the population (16-34)	5%	22
	% of households with no adults in employment	31%	21
	% of households with no adults in employment with dependent children	2%	5
	% of households with lone parents with dependent children	6%	10
	% of people employed who are either managers/senior officials or professionals	10%	8
	Employment rate (%, 16-74 population)	66%	11
	Unemployed who have never worked (% of unemployed)	13%	24



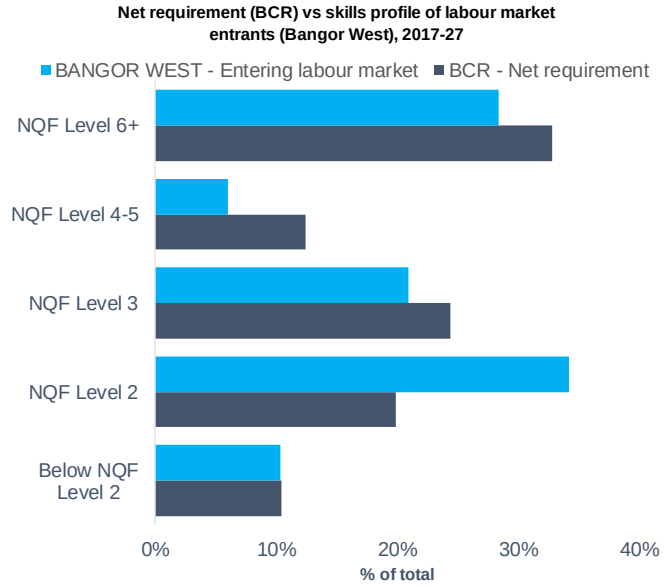
Source: UUEPC

	Ards Peninsula	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	64%	62
	% of school enrolments entitled to FSM	22%	30
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	5%	10
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	52%	24
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	5%	1
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	15%	51
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	21%	51
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	74
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	39%	39
	% of 16-64 population with high qualifications (NQF level 4+)	22%	61
	% of 16-34 population with low qualifications (below NQF level 2)	28%	37
	% of 16-34 population with high qualifications (NQF level 4+)	23%	52
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	23%	56
	Social security clients (client group analysis) as a % of the population (16-34)	17%	57
	Housing benefit claimants as a % of the population (16-64)	8%	38
	Housing benefit claimants as a % of the population (16-34)	7%	48
	% of households with no adults in employment	36%	52
	% of households with no adults in employment with dependent children	4%	32
	% of households with lone parents with dependent children	7%	28
	% of people employed who are either managers/senior officials or professionals	8%	31
	Employment rate (%, 16-74 population)	60%	50
	Unemployed who have never worked (% of unemployed)	11%	9



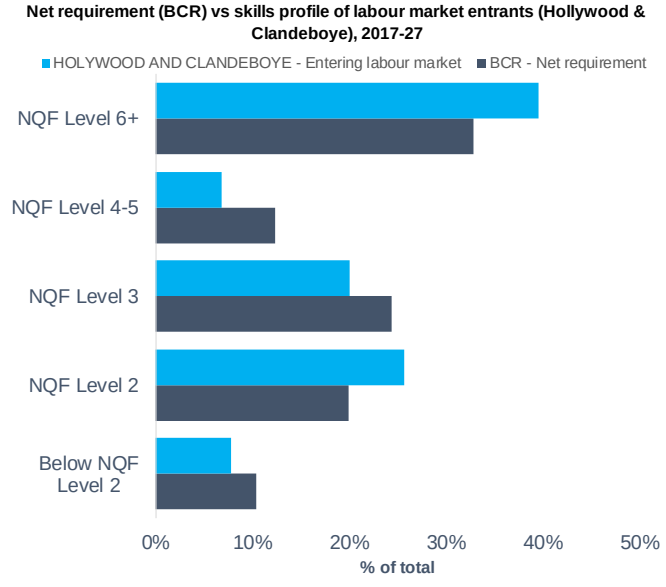
Source: UUEPC

	Bangor Central	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	68%	35
	% of school enrolments entitled to FSM	26%	41
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	15%	57
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	56%	43
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	9%	15
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	15%	40
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	30%	11
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	13%	33
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	31%	13
	% of 16-64 population with high qualifications (NQF level 4+)	33%	9
	% of 16-34 population with low qualifications (below NQF level 2)	26%	28
	% of 16-34 population with high qualifications (NQF level 4+)	30%	12
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	20%	38
	Social security clients (client group analysis) as a % of the population (16-34)	17%	55
	Housing benefit claimants as a % of the population (16-64)	12%	57
	Housing benefit claimants as a % of the population (16-34)	10%	59
	% of households with no adults in employment	36%	51
	% of households with no adults in employment with dependent children	4%	27
	% of households with lone parents with dependent children	8%	43
	% of people employed who are either managers/senior officials or professionals	10%	12
	Employment rate (%, 16-74 population)	64%	27
	Unemployed who have never worked (% of unemployed)	12%	15



Source: UUEPC

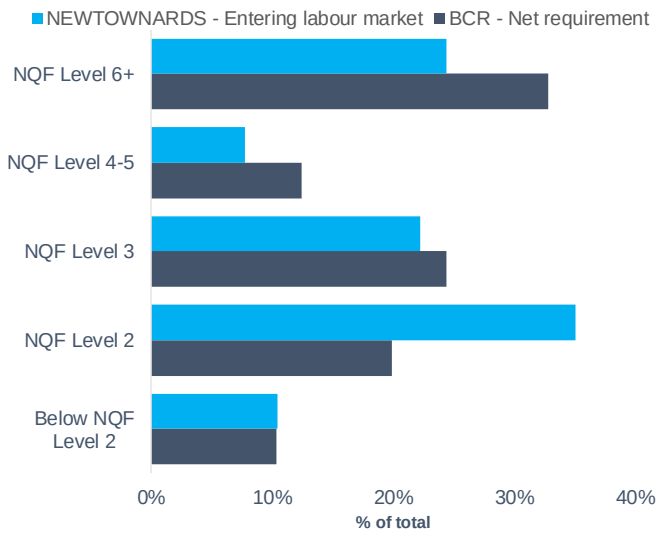
	Bangor West	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	66%	53
	% of school enrolments entitled to FSM	23%	37
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	7%	16
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	58%	49
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	9%	12
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	17%	30
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	24%	41
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	9%	68
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	33%	18
	% of 16-64 population with high qualifications (NQF level 4+)	30%	14
	% of 16-34 population with low qualifications (below NQF level 2)	25%	20
	% of 16-34 population with high qualifications (NQF level 4+)	31%	11
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	20%	34
	Social security clients (client group analysis) as a % of the population (16-34)	12%	24
	Housing benefit claimants as a % of the population (16-64)	9%	51
	Housing benefit claimants as a % of the population (16-34)	8%	50
	% of households with no adults in employment	38%	61
	% of households with no adults in employment with dependent children	4%	22
	% of households with lone parents with dependent children	7%	35
	% of people employed who are either managers/senior officials or professionals	8%	37
	Employment rate (%, 16-74 population)	62%	36
	Unemployed who have never worked (% of unemployed)	11%	10



Source: UUEPC

	Holywood And Clandeboye	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	85%	3
	% of school enrolments entitled to FSM	9%	2
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	*	*
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	55%	34
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	10%	22
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	21%	9
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	31%	9
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	8%	79
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	27%	4
	% of 16-64 population with high qualifications (NQF level 4+)	40%	4
	% of 16-34 population with low qualifications (below NQF level 2)	26%	29
	% of 16-34 population with high qualifications (NQF level 4+)	31%	10
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	12%	5
	Social security clients (client group analysis) as a % of the population (16-34)	8%	6
	Housing benefit claimants as a % of the population (16-64)	4%	7
	Housing benefit claimants as a % of the population (16-34)	3%	9
	% of households with no adults in employment	34%	40
	% of households with no adults in employment with dependent children	2%	3
	% of households with lone parents with dependent children	5%	4
	% of people employed who are either managers/senior officials or professionals	13%	1
	Employment rate (%, 16-74 population)	64%	26
	Unemployed who have never worked (% of unemployed)	12%	14

Net requirement (BCR) vs skills profile of labour market entrants (Newtownards), 2017-27



Source: UUEPC

	Newtownards	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	63%	63
	% of school enrolments entitled to FSM	27%	43
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	10%	35
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	55%	36
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	9%	14
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	14%	58
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	26%	29
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	15%	16
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	39%	36
	% of 16-64 population with high qualifications (NQF level 4+)	23%	55
	% of 16-34 population with low qualifications (below NQF level 2)	30%	51
	% of 16-34 population with high qualifications (NQF level 4+)	22%	61
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	23%	54
	Social security clients (client group analysis) as a % of the population (16-34)	20%	65
	Housing benefit claimants as a % of the population (16-64)	12%	58
	Housing benefit claimants as a % of the population (16-34)	12%	65
	% of households with no adults in employment	35%	44
	% of households with no adults in employment with dependent children	5%	37
	% of households with lone parents with dependent children	9%	53
	% of people employed who are either managers/senior officials or professionals	8%	28
	Employment rate (%, 16-74 population)	62%	38
	Unemployed who have never worked (% of unemployed)	15%	45