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Future Skills Needs: Growth Region

Fermanagh and Omagh

Mid Ulster

Armagh, Banbridge and Craigavon

Department for the Economy

SKILLS TO SUCCEED

Invest Northern Ireland

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Introduction and background

Introduction and background

Ulster University Economic Policy Centre (UUEPC) were commissioned by Invest Northern Ireland to report on the future skills needs of the “Growth Region” of Northern Ireland (NI).

The Growth Region is defined by three Local Government Districts (LGDs): Mid Ulster; Armagh, Banbridge and Craigavon; and Fermanagh and Omagh. The empirical approach is based directly upon UUEPC’s forecasting methodology employed in the NI Skills Barometer.

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.

This report provides contextual analysis which underpins skills forecasts, outputs from the assessment of future skills demand, a review of supply side indicators relating to the Growth Region and overall skill balances.

Acronyms and skills classification

Acronyms

Acronym	Full title
UUEPC	Ulster University Economic Policy Centre
NI	Northern Ireland
NQF	National Qualifications Framework
SIC	Standard Industrial Classification
SOC	Standard Occupational Classification
DfE	Department For Economy
JACS	Joint Academic Coding System
SSA	Sector Subject Area
HE	Higher Education
FE	Further Education
LGD	Local Government District
MCS	Millennium Cohort Study
PfG	Programme for Government
FDI	Foreign Direct Investment
FSME	Free School Meal Entitlement
StS	Steps to Success
TfS	Training for Success
STEM	Science, technology, engineering and mathematics
DEA	District Electoral Area
SOA	Super Output Area

NQF scale

NQF level	Description
Level 8	PhD (or equivalent)
Level 7	Masters (or equivalent)
Level 6	Undergraduate degree (or equivalent)
Level 4-5	Foundation degree/HND/HNC (or equivalent)
Level 3	A-level (or equivalent)
Level 2	5 GCSEs A*-C (or equivalent)
Level 1	5 GCSEs D-G (or equivalent)
Level 0	No qualification

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How is the ‘Growth Region’ geographical area defined?

Workplace labour market structure

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Introduction to workplace labour market structure

Workplace labour market structure

It is important to outline the Growth Region workplace labour market structure e.g. sectoral mix, demography and skills characteristics in order to fully understand and contextualise forecasted skill requirements.

The workplace refers to the jobs within the Growth Region, not the jobs held by the Growth Region residents. Therefore, jobs held by residents which are located outside the Growth Region are not included in the analysis which follows.

Data caveats

If analysis refers to the year 2017 or after the data has been 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 2011 Census is still considered to be a data source which reflects current skills patterns across NI.

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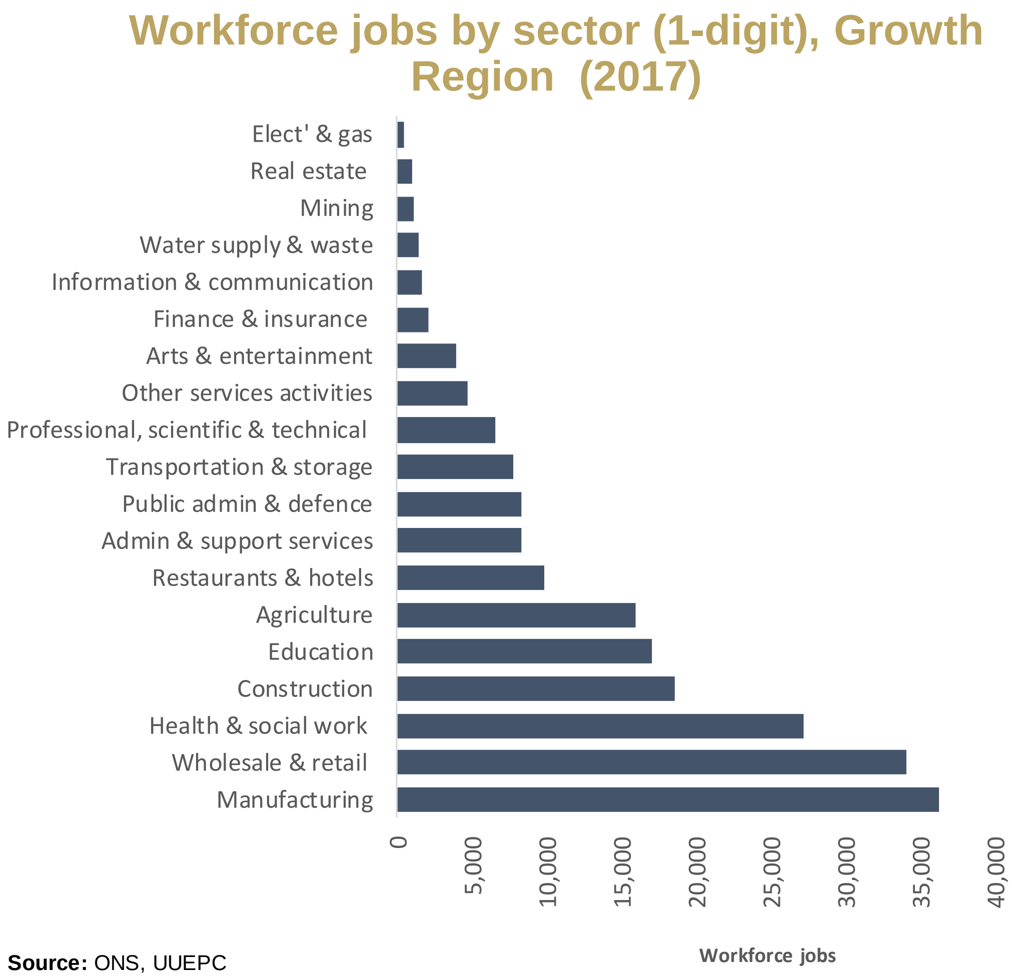
Manufacturing and retail are the largest employers in the Growth Region



Source: ONS, UUEPC

The largest employment sector in the Growth Region is manufacturing employing 36,300 workers. This accounts for 18% of the Growth Region's total and 39% of all jobs in this sector in NI.

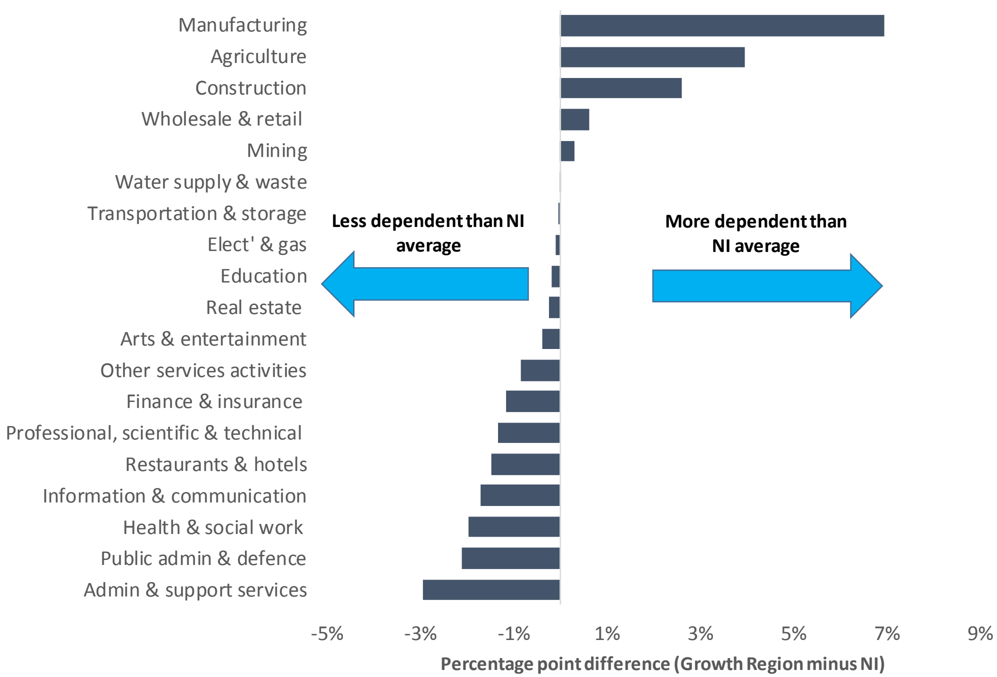
The second largest employment sector in the Growth Region is wholesale and retail which accounts for 34,100 workers. This translates to 17% of the Growth Region's total and 25% of all jobs in this sector in NI.

Other large employment sectors include health and social work (27,300 workers, 13% of the Growth Region's total), construction (18,600 workers, 9% of the Growth Region's total) and education (17,100, 8% of the Growth Region's workers).

Higher job concentration in manufacturing, agriculture and construction relative to NI

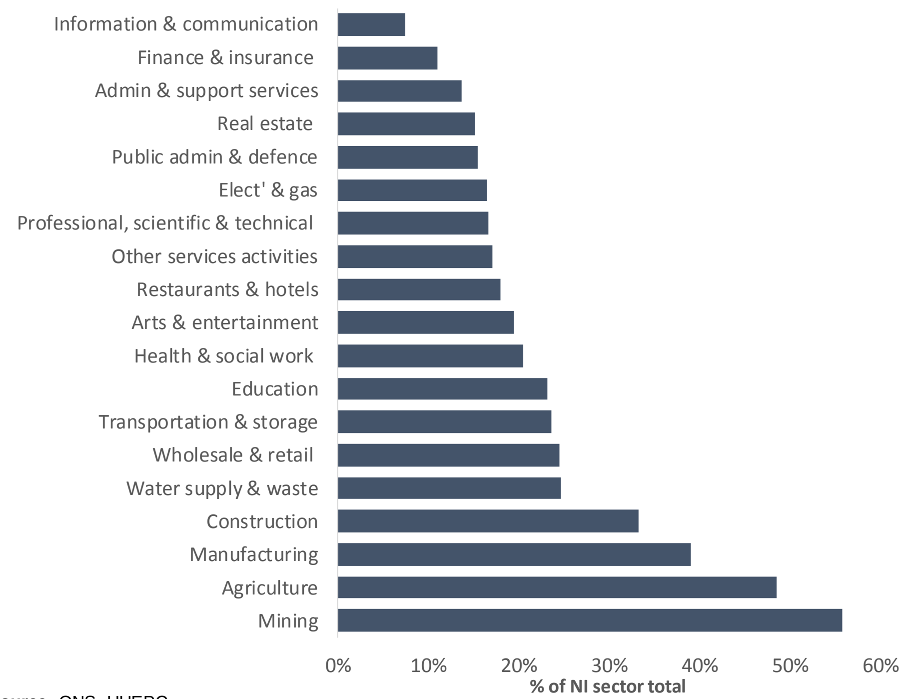
Workforce jobs by sector (1-digit), Growth Region versus NI (2017)

Percentage point difference in share of workforce jobs by sector (1-digit), Growth Region versus NI (2017)



Source: ONS, UUEPC

Growth Region workforce jobs as proportion of NI total by sector (1-digit) (2017)



Source: ONS, UUEPC

Relative to the NI average, the Growth Region has a higher concentration of jobs in a number of sectors including manufacturing, agriculture, construction and wholesale and retail. Jobs in high growth sectors such as professional and scientific or ICT are less concentrated in the Growth Region, relative to the NI average.

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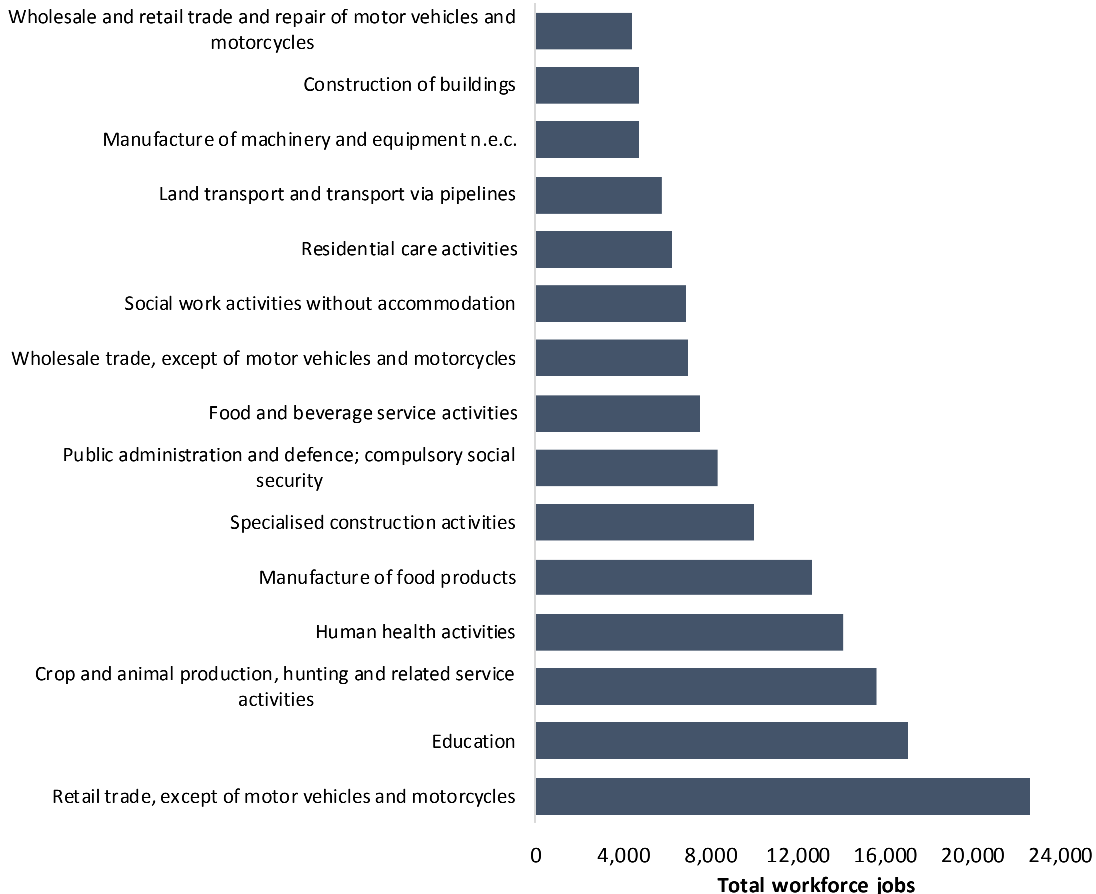
Retail trade is the largest sub-sector employer in the Growth Region

Workforce jobs by sector (top 15 2-digit), Growth Region (2017)



Source: UUEPC

The largest workplace sub-sector in the Growth Region is retail trade (22,700 jobs) followed by education (17,100) and crop and animal production (15,600). Human health activities and manufacture of food also represent 14,100 and 12,700 jobs respectively.

Growth Region created 16,550 jobs from 2012-2017

The number of jobs in the Growth Region increased by 16,550 over the 5 year period 2012-2017. This accounted for 24% of total workforce job growth in NI.

In absolute terms the strongest sectoral growth over the period was in manufacturing (7,710), construction (2,480) and admin' and support services (2,220). The largest job losses occurred in agriculture (-1,160), public admin' and defence (-1,060) and finance and insurance (-430).

Overall job growth in the Growth Region was similar to the NI average, both 9% over the 2012-2017 period.

Workforce jobs growth by sector (1-digit), Growth Region versus NI (2012-2017)

	Growth region		Northern Ireland
Sector	Job growth 2012-2017	% change	% change
Agriculture	-1,160	-7%	-6%
Mining	-140	-11%	-11%
Manufacturing	7,710	27%	20%
Elect' & gas	280	210%	100%
Water supply & waste	170	13%	14%
Construction	2,480	15%	8%
Wholesale & retail	690	2%	1%
Transportation & storage	810	12%	8%
Restaurants & hotels	1,430	17%	22%
Information & communication	150	10%	17%
Finance & insurance	-430	-17%	-6%
Real estate	-200	-17%	-19%
Professional, scientific & technical	910	16%	20%
Admin & support services	2,220	36%	33%
Public admin & defence	-1,060	-11%	-9%
Education	270	2%	3%
Health & social work	330	1%	5%
Arts & entertainment	400	11%	14%
Other services activities	1,680	56%	45%
Total	**16,550**	**9%**	**9%**

Source: ONS, UUEPC

Note: Figures may not sum due to rounding

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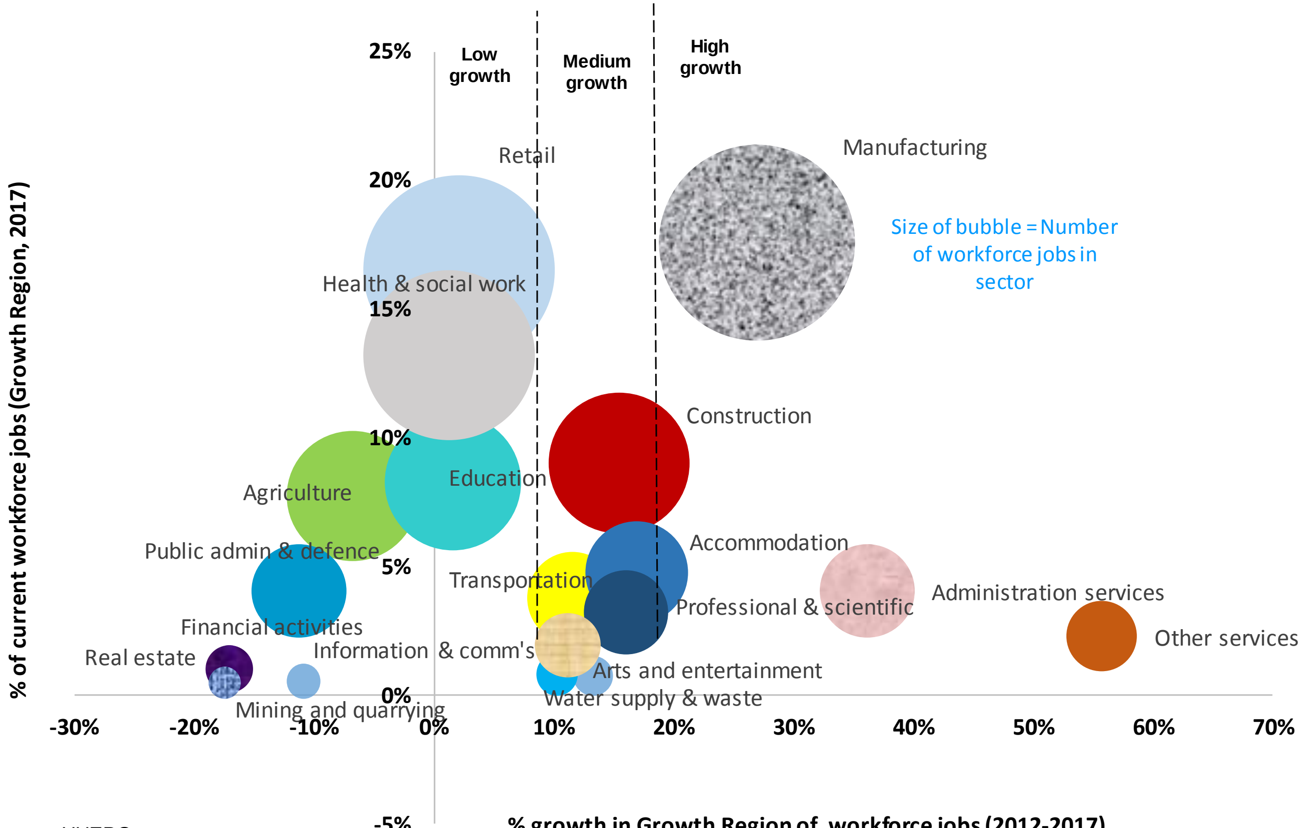
High growth in small and medium sized sectors

Workforce jobs growth by sector (1-digit) and number of jobs (workplace based), Growth Region (2012-2017)

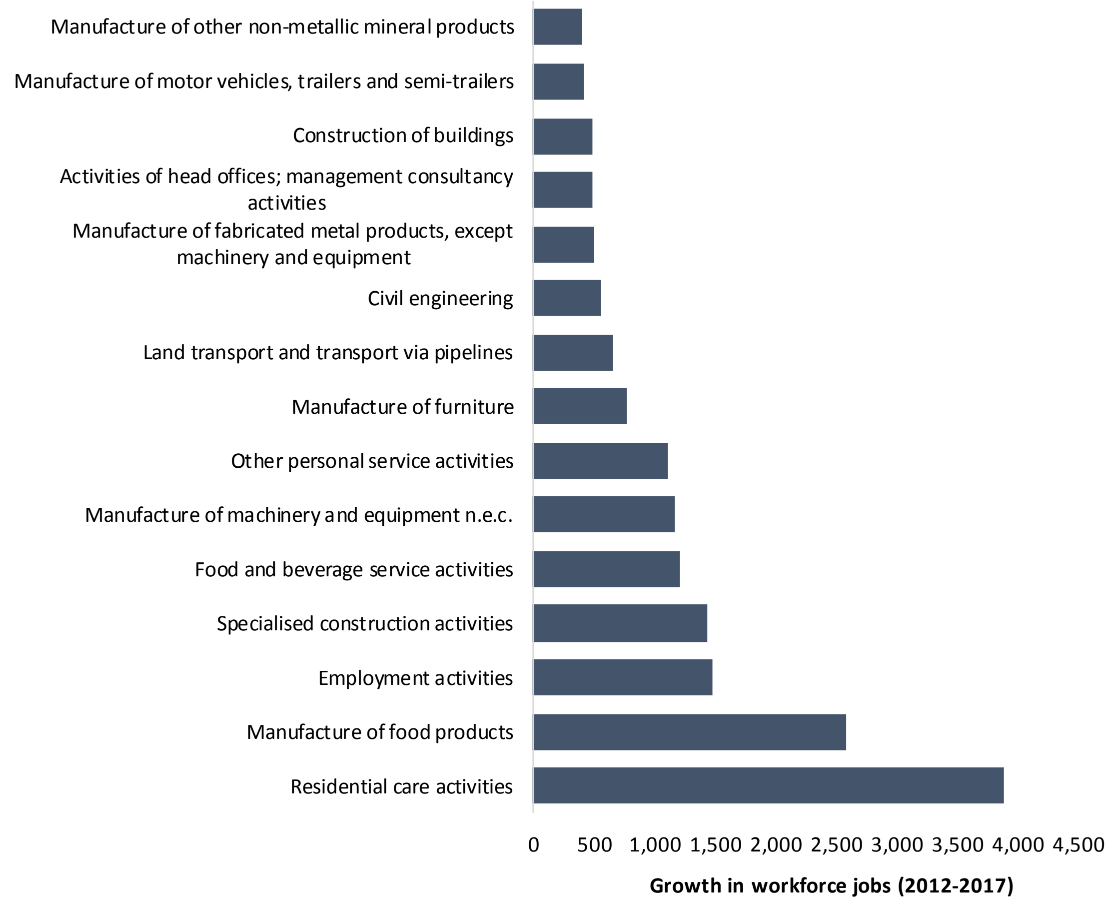


Source: UUEPC

It is important to contextualise job growth figures with the size of a sector. For instance, some sectors may have experienced very high growth but remain relatively small in size (e.g. other services). Whereas, other sectors may have experienced medium to high growth but as they are larger sectors have contributed a significant number of absolute jobs (e.g. construction).

Residential care activities have created the largest quantum of jobs in the Growth Region since 2012

Workforce jobs growth by sector (top 15 2-digit), Growth Region (2012-2017)



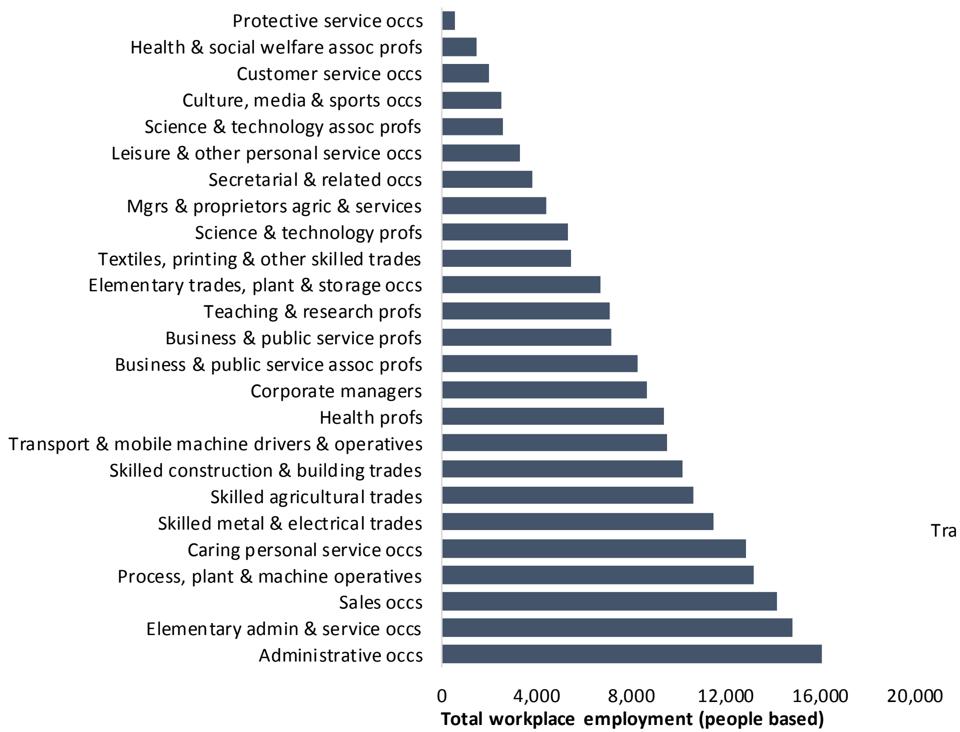
Source: UUEPC

The largest quantum of sub-sectoral job growth was recorded in residential care activities, creating 3,900 jobs over the period 2012-2017. This was followed by manufacture of food products (2,600 jobs) and employment activities (1,500 jobs).

Higher concentration of trade and operative occupations in the Growth Region relative to the NI average

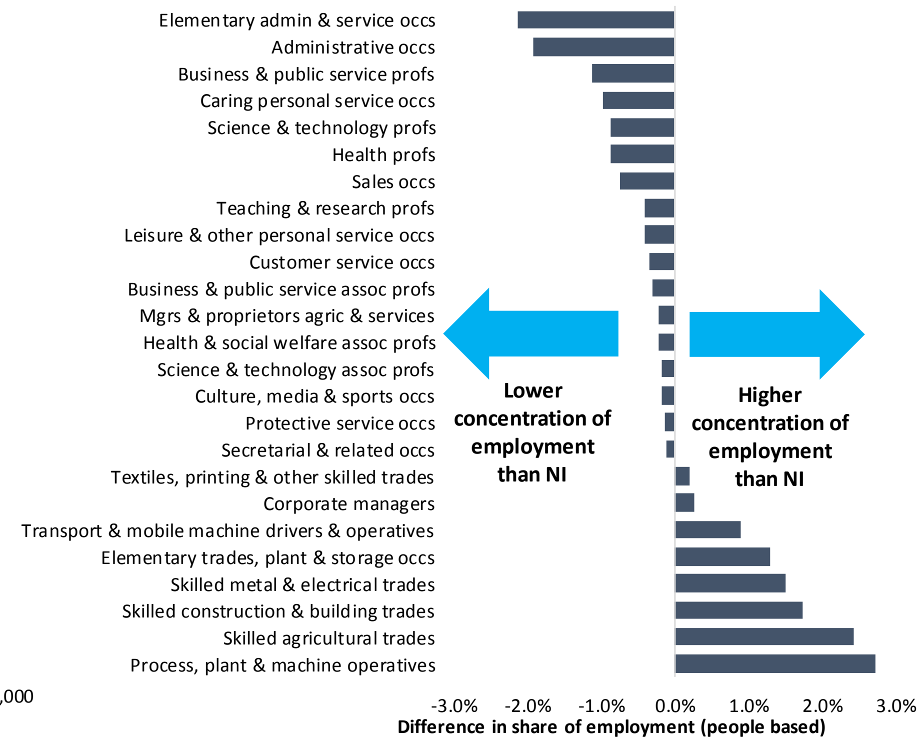
Workplace jobs by occupation (2-digit), Growth Region versus NI (2017)

Workplace structure by occupation (2-digit), Growth Region (people based) (2017)



Source: UUEPC

Workplace based structure by occupation (2-digit), Growth Region versus NI (people based) (2017)



Source: UUEPC

The Growth Region's occupational structure is different to NI's, as it is driven by a different sectoral structure. For example, there is a higher concentration of process plant and machine operatives (7% in the Growth Region compared to 4% in NI as a whole) and a relatively lower concentration of elementary administration occupations (8% in the Growth Region compared to 10% in NI).

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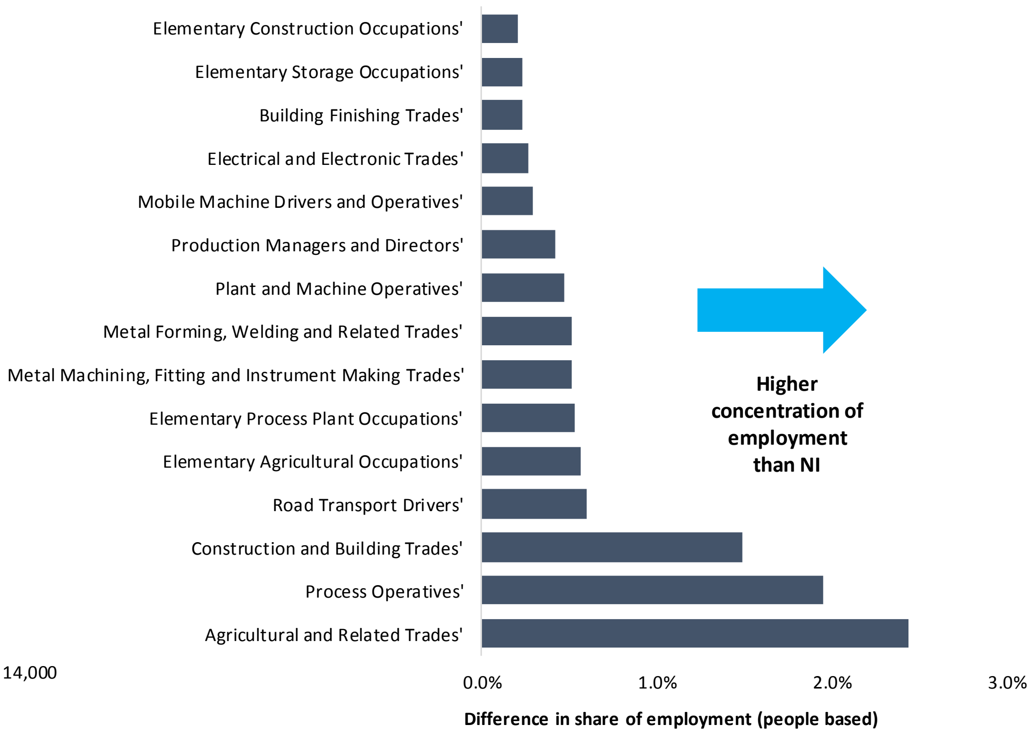
Sales assistants and retail cashiers is the largest detailed occupation in the Growth Region

Workplace based employment by occupation (top 15 3-digit), Growth Region versus NI (2017)

Workplace structure by occupation (3-digit), Growth Region (people based) (2017)

Source: UUEPC

Workplace based structure by occupation (3-digit), Growth Region versus NI (people based) (2017)



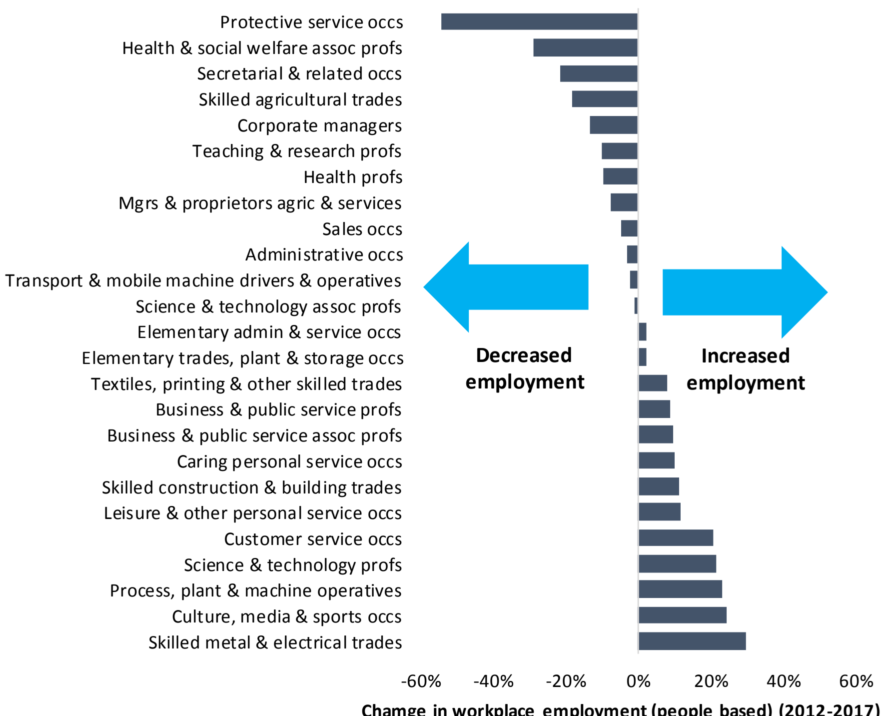
Source: UUEPC

At a more granular level the largest detailed (3-digit) occupations are sales assistants and retail cashiers (12,300 employed), agricultural and related trades (10,600 employed), and construction and building trades (8,000 employed).

Process operatives experienced the largest quantum of job growth over the 2012-2017 period

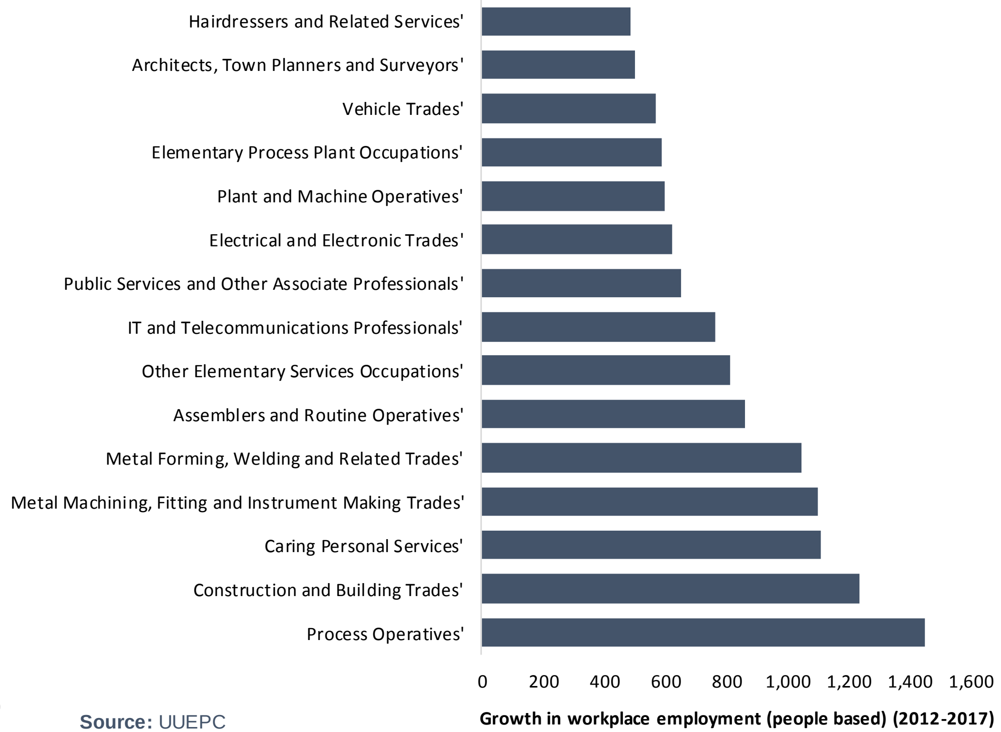
Workplace based growth by occupation (2-digit), Growth Region (people based) (2012-2017)

Workplace based jobs by occupation (2-digit) structure, Growth Region versus NI, (2012-2017)



Source: UUEPC

Workplace based jobs growth by occupation (top 15 3-digit), Growth Region (workplace based) (2012-2017)



Source: UUEPC

The occupation with the largest quantum of growth within the Growth Region over the past five years is process operatives (1,500 jobs) followed by construction and building trades (1,200), caring personal services (1,100) and metal machining, fitting and instrument making trades (1,100).

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Summary of workplace labour market structure

Sectoral structure - The largest sectoral employers are manufacturing (18% of total jobs), wholesale and retail (17% of total jobs) and health and social work (13% of total jobs). Relative to the NI average the Growth Region has a higher concentration of workforce jobs in sectors including manufacturing, agriculture and construction.

Scale of workforce - The Growth Region accounts for over half (56%) of total NI mining jobs, just under half (49%) of total agricultural jobs and almost two fifths (39%) of manufacturing jobs.

Sectoral growth - The largest quantum of job growth was in manufacturing (7,710 jobs) over the 2012-2017 period, followed by construction (2,480 jobs) and administration and support (2,220 jobs). Overall job growth in the Growth Region was similar to the NI average, both 9%.

Occupation structure - The Growth Region has a different occupation structure compared to NI as a whole, driven by differences in the sectoral structures. The Growth Region's largest occupation is administrative occupations, (8% of total), followed elementary administrative and service occupations (8% of total) and sales occupations (7% of total).

Relative to the NI average the Growth Region has a higher concentration in a number of occupations including process, plant and machine operatives, skilled agricultural trades and skilled construction and building trades. However, the Growth Region is less dependent upon elementary administration and service occupations, administration occupations and business and public service professionals, compared to the NI average.

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Summary of workplace labour market structure (continued)

Occupation growth - The fastest growing occupation within the Growth Region over the period 2012-2017 was skilled metal and electrical trades (30%). This was followed by culture, media and sports occupations (24%) and process, plant and machine operatives (23%). At a more granular level and in absolute terms process operatives increased by the largest quantum (1,450) followed by construction and building trades (1,240).

Occupation decline - A number of occupations have also declined over the past five years. For example, skilled agricultural trades (-1,917) and corporate managers (-1,160). These can be linked to either a change in the occupational composition within sectors or an overall decline in sectors where specific occupations are highly concentrated. For example, a decline in corporate managers can be linked to the decline of the finance sector, as there is a high concentration of branch managers of banks etc.

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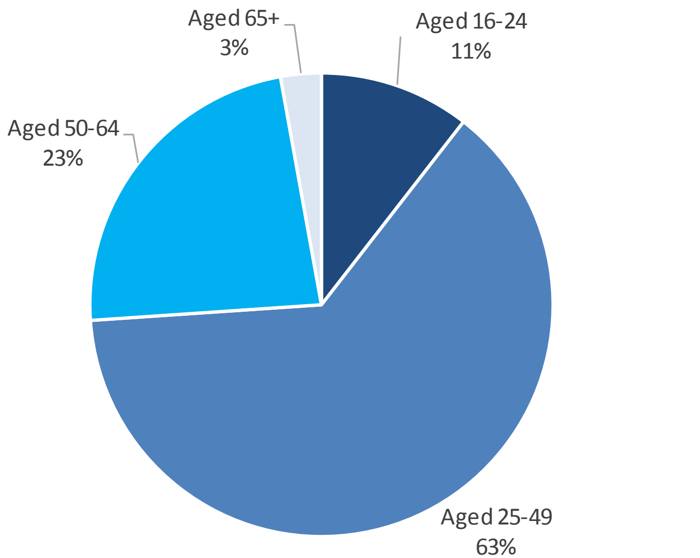
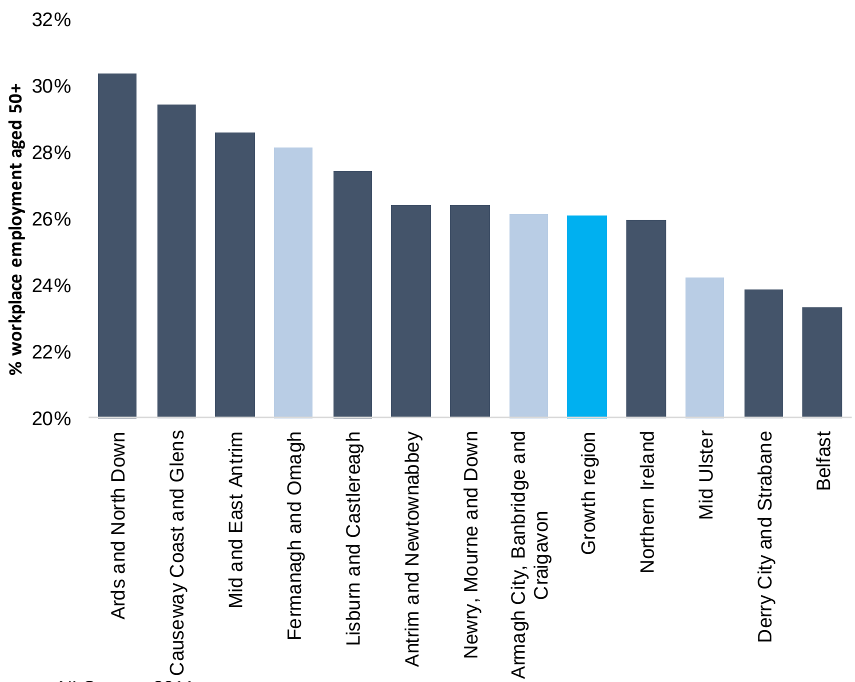
Workplace demographic factors

Older workers account for one quarter of the workplace in the Growth Region workplace

Workplace based employment by age, Growth Region (2011)



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



Source: NI Census 2011

The higher the proportion of older workers the higher the level of replacement demand. That is, as older workers move into retirement vacancies become available within the labour market which must be replaced. The proportion of workplace employment aged over 50 is equal to the NI average (26%), suggesting retiring workers will have to be replaced at a rate equal to the NI average. However, the rate varies from 28% in Fermanagh and Omagh to 24% in Mid Ulster.

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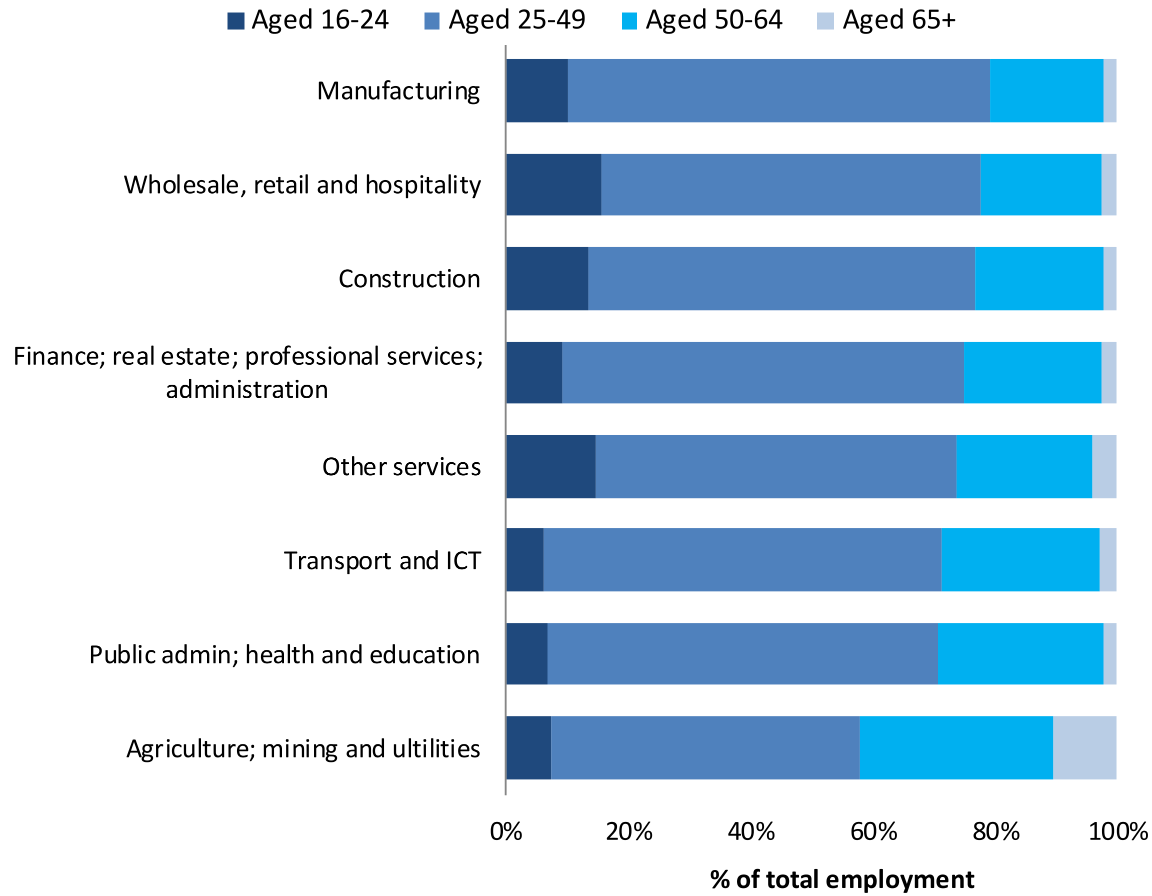
Agriculture, mining & utilities sectors have highest proportion of older workers in the Growth Region economy

Workplace based employment by age and sector (1-digit), Growth Region (2011)

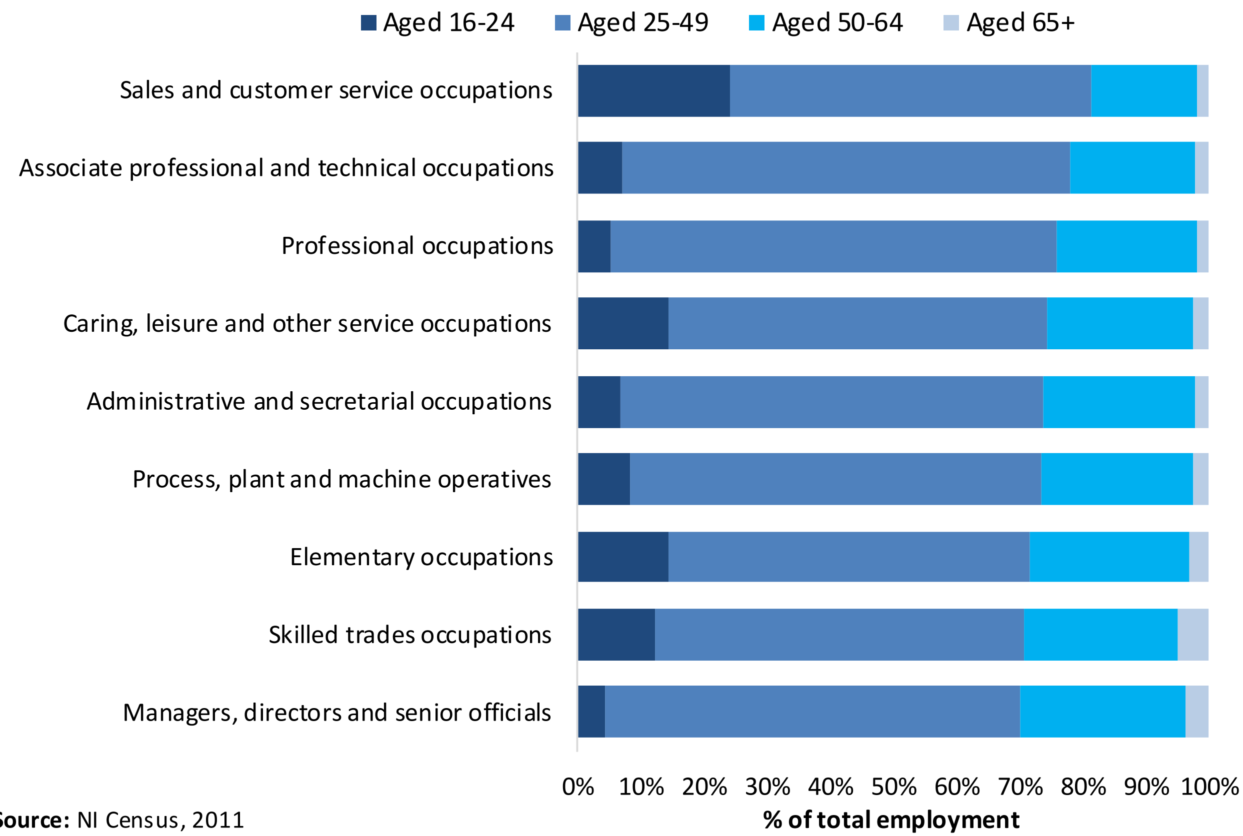


Source: NI Census, 2011

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

Sales assistants and customer service occupations have the highest proportion of workers aged under 25

Workplace based employment by occupation (1-digit), Growth Region (2011)

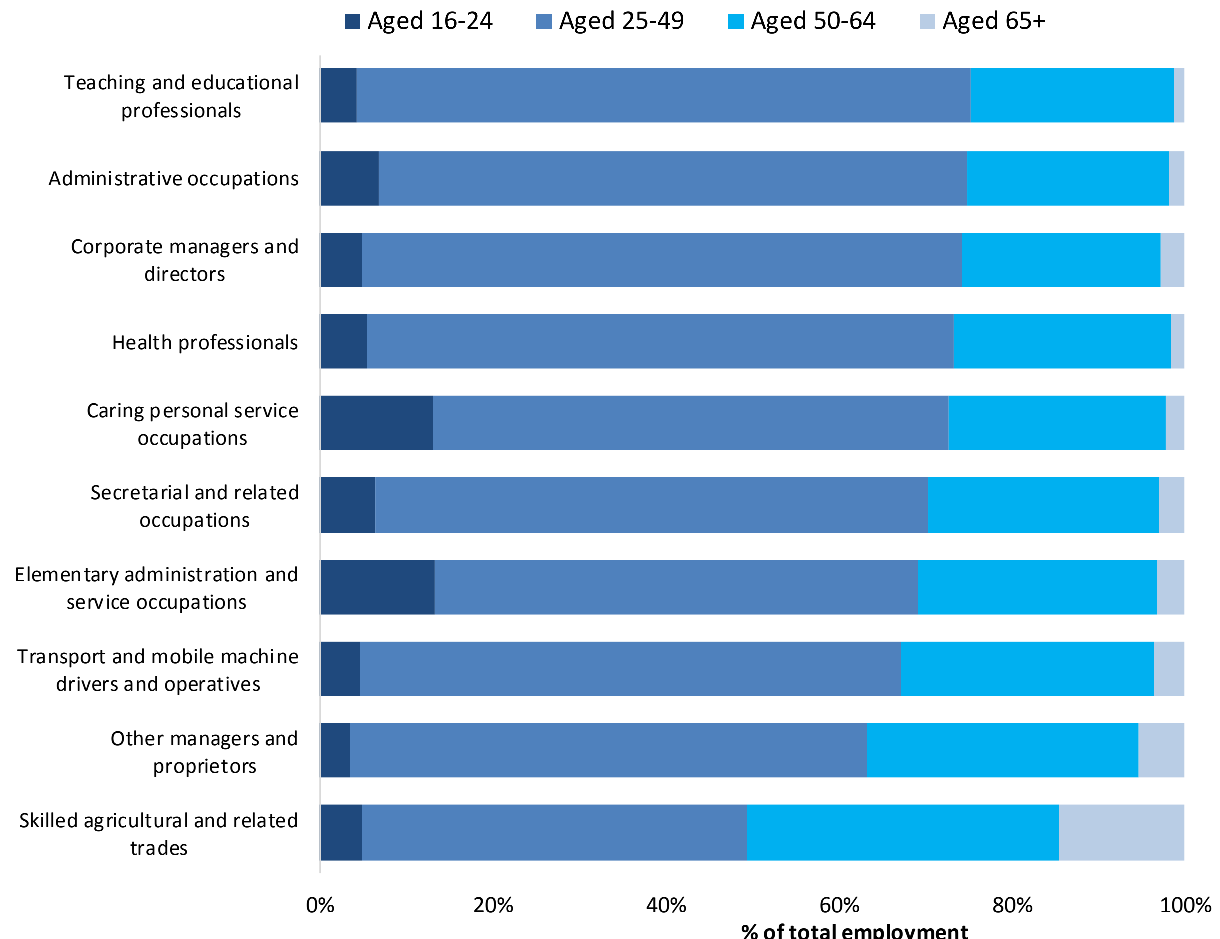


Source: NI Census, 2011

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

Over half of skilled agricultural and related trade workers are aged 50 or above

Workplace based employment by top 10 occupations (2-digit) with workers aged over 50, Growth Region (2011)



Source: NI Census, 2011

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

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Summary of workplace demography

Workplace age - The age distribution of the Growth Region's workplace is similar to the NI average:

- 11% of the Growth Region workforce aged 16-24 (NI average is 10%)
- 63% of the Growth Region workforce aged 25-49 (NI average is 62%) and
- 26% of the Growth Region workers aged 50+ (equal to NI average).

The rate of workers aged over 50 varies amongst LGDs which constitute the Growth Region, ranging from a high of 28% of workers in Fermanagh and Omagh to a low of 24% of workers in Mid Ulster.

However, an overall similar rate of workers aged over 50 between the Growth Region and NI indicates the Growth Region labour market will have to replace retiring workers at a rate similar to the NI average.

Workplace sector and age - Agriculture, mining and utilities has the highest concentration of workers aged 50+ (42%) followed by public sectors (29%). Therefore, these sectors will require a higher level of demand to replace retiring workers, relative to other sectors.

Contrastingly wholesale, retail and hospitability employs the largest proportion of workers aged below 25 (16%). This suggests a relatively lower demand with regard to replacing retired workers. However, given this sector is associated with high entry and exit rates, replacement demand will still be relatively high in this sector.

Workplace occupation and age - The sales and customer service occupations have the largest proportion of workers aged 16-24 (24%) and managers, directors and senior officials constitute the highest proportion of workers aged 50 and above (30%).

At a more granular level skilled agricultural and related trades have the largest proportion of workers aged over 50 (51%) followed by other managers and proprietors (36%).

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Workplace skills structure

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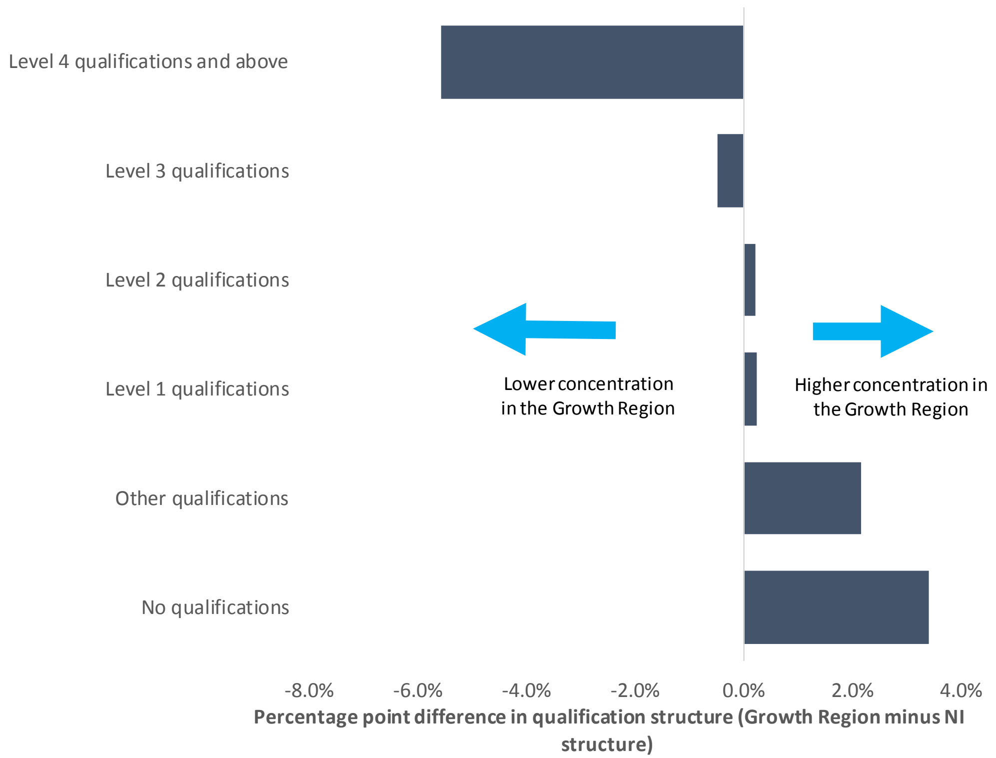
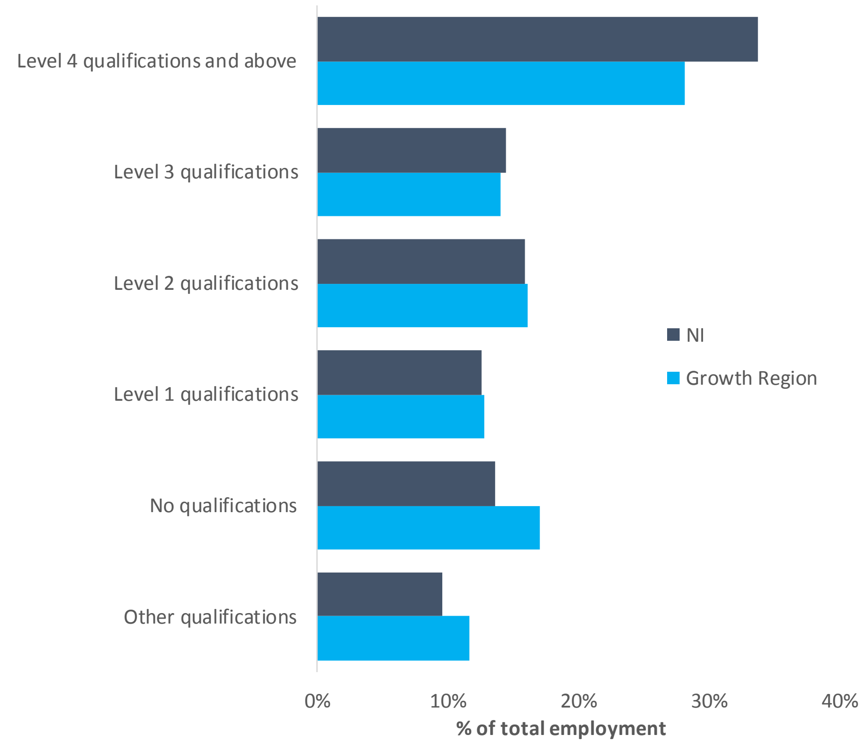
Workplace tertiary qualifications in the Growth Region are below the NI average

Workplace based skills structure (NQF), Growth Region versus NI (2011)

Percentage point difference in workplace qualification profile (NQF), Growth Region versus NI (2011)



Workplace qualification profile (NQF), Growth Region versus NI (2011)



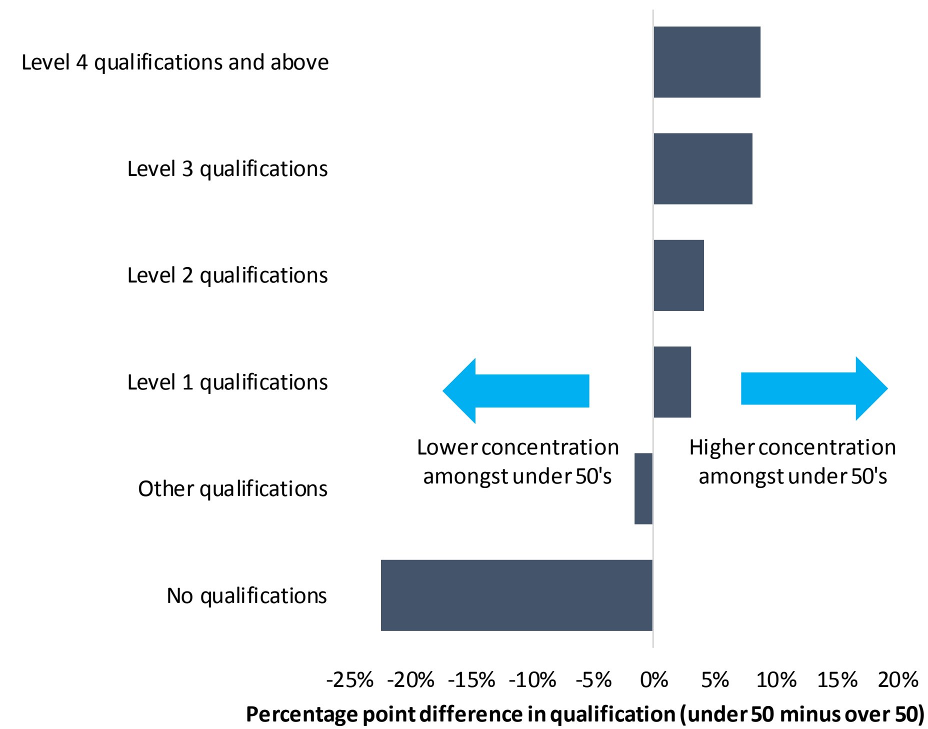
Source: NI Census 2011
Note: Based on those aged 16-74 in employment, excluding students

The Growth Region's workplace has a higher proportion of workers with low qualifications (NQF level 1 or below) compared to NI, 42% and 36% respectively. The relatively lower workplace skills is a function of a higher concentration of typically low skilled sectors such as agriculture and construction.

As older workers with lower qualifications retire the stock of qualifications will trend upwards

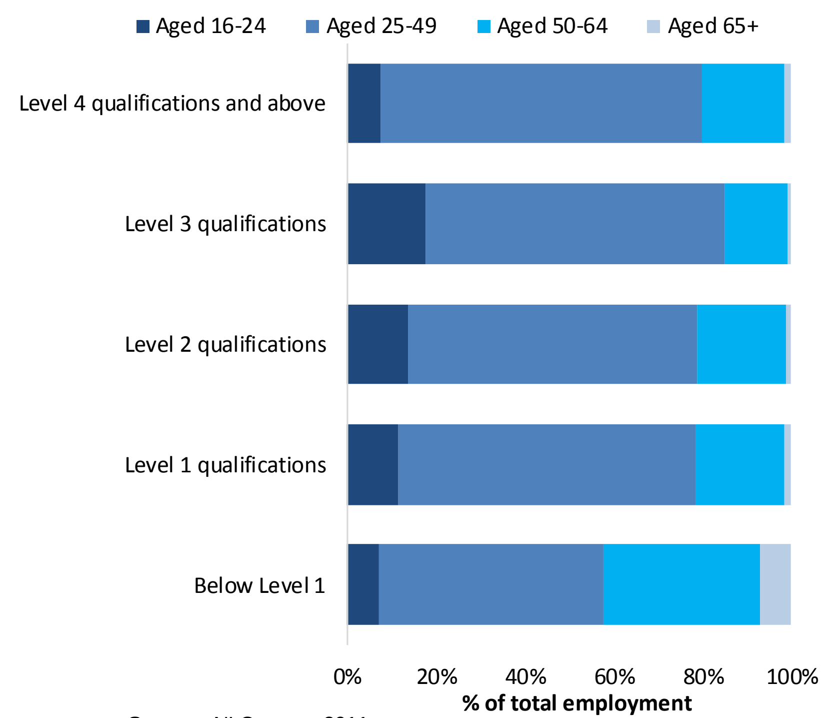
Workplace qualification structure (NQF) by age, Growth Region (2011)

Percentage point difference in employed skill profile (NQF), under 50's versus over 50's, Growth Region (2011)



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

Age profile by qualification (NQF), Growth Region (2011)



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

Older workers tend to be associated with lower levels of formal qualifications relative to younger workers. This aligns to the upwards trend in education participation and employer attitudes towards the requirement of formal qualifications. In the Growth Region, 30% of the workplace aged 50 or over have achieved NQF level 3+ qualifications, compared to 47% of those aged under 50.

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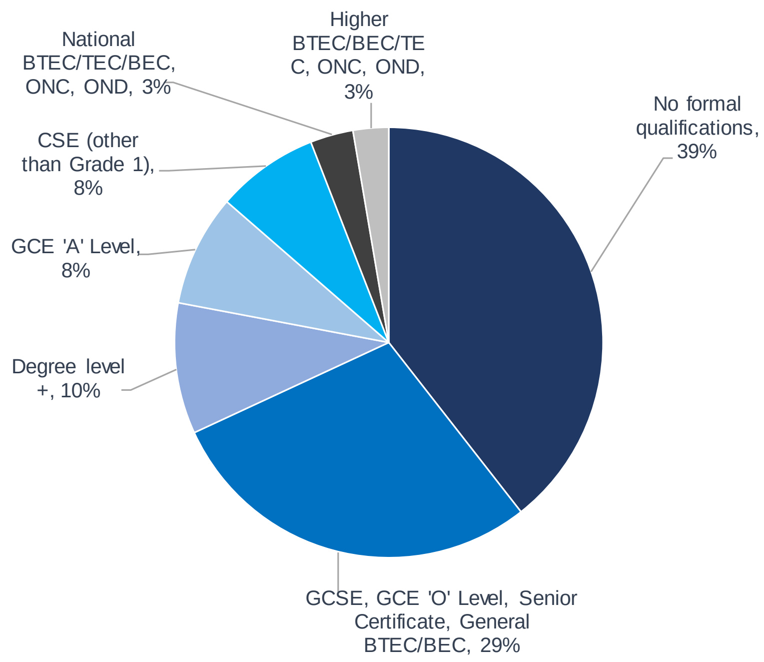
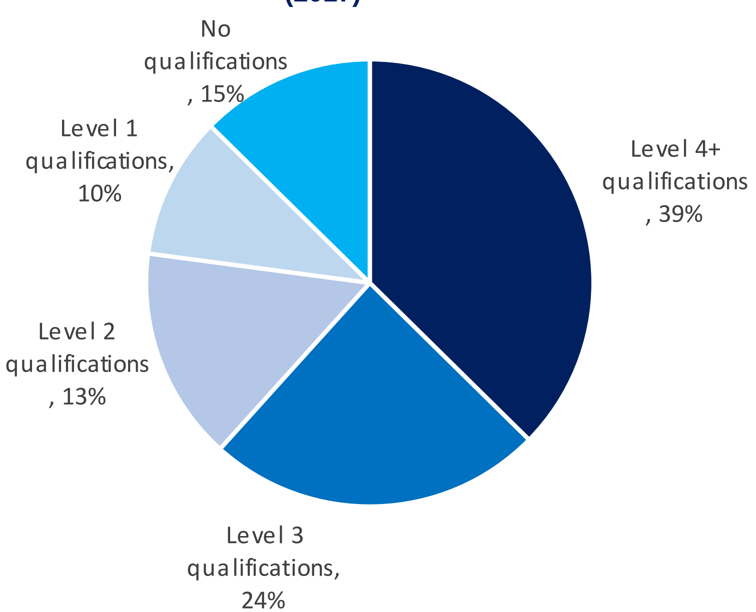
Older workers may have lower qualification levels, but not necessarily lower skilled

Qualification profile of employed residents, Growth Region (2017) and NI (1991)



Source: Census 1991

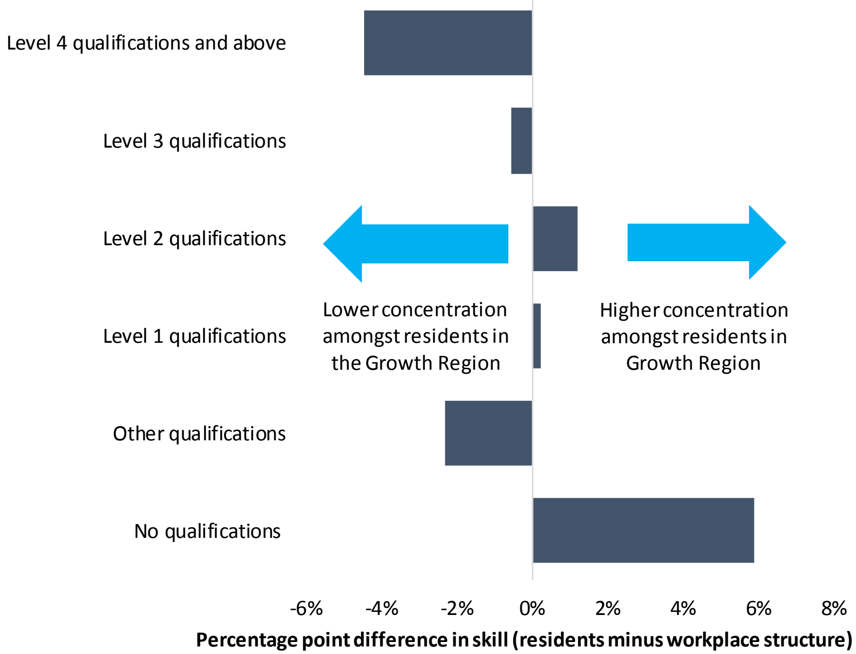


Source: Labour Force Survey

Some mismatches between resident and workplace qualifications in the Growth Region

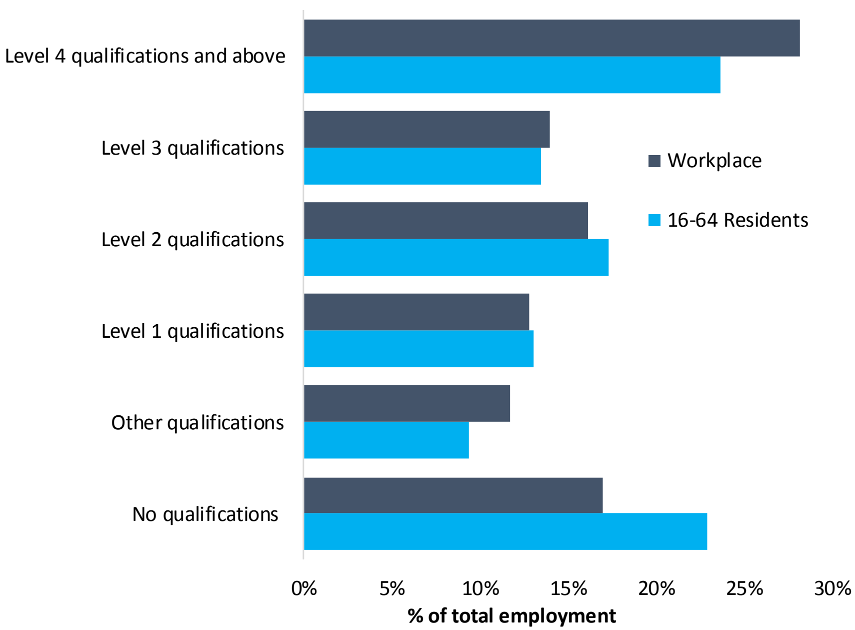
Resident versus workplace qualifications (NQF), Growth Region (2011)

Percentage point difference in qualification structure (NQF), resident versus workplace, Growth Region (2011)



Source: NI Census, 2011
Note: Based on those aged 16-64, excluding students

Qualification structure (NQF), resident versus workplace, Growth Region (2011)



Source: NI Census, 2011
Note: Based on those aged 16-64, excluding students

A mismatch between resident and workplace skill structure can generate labour market barriers, particularly for those at the bottom of the skills spectrum. In the Growth Region, 28% of the workplace have tertiary level education (NQF level 4+) compared to 24% of the Growth Region's resident population. This suggests the Growth Region must either import skills from other LGDs at the higher end of the skills spectrum or raise the qualification profile of the resident population to fill the deficit.

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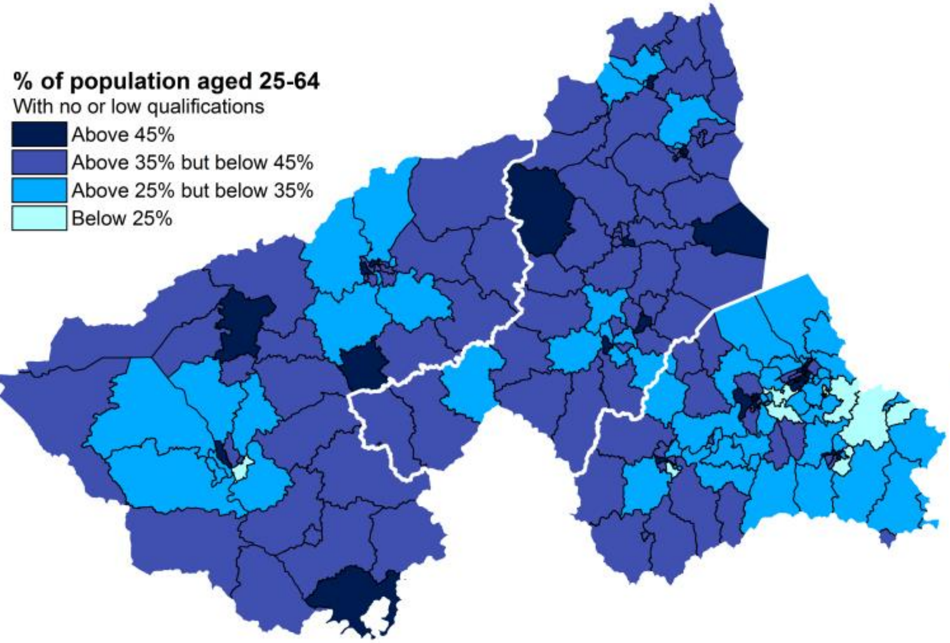
Relatively high concentration of low resident and workplace skills

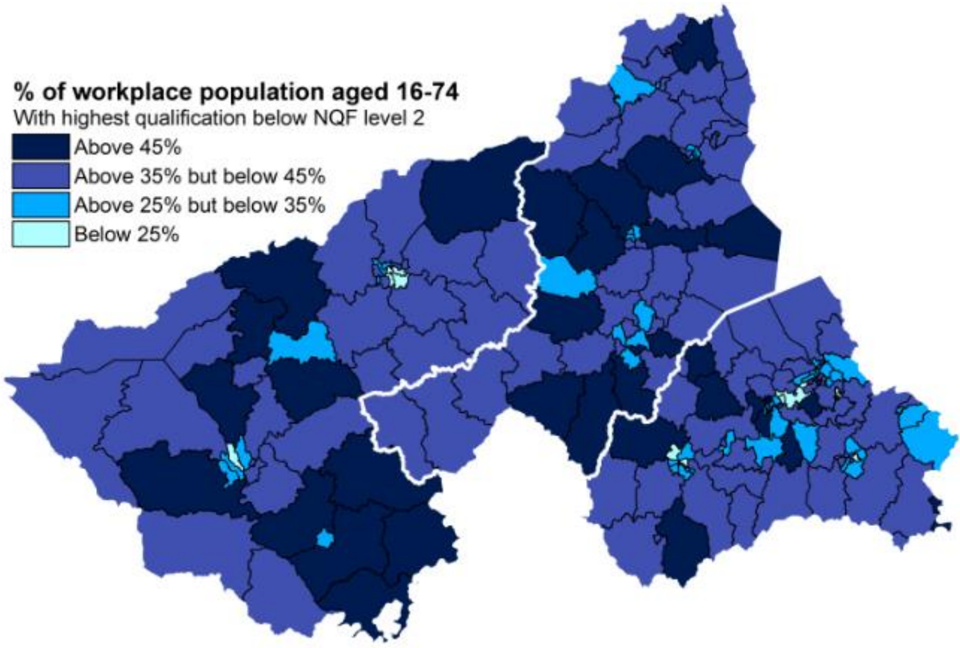
Qualification profile (NQF), workplace versus resident, the Growth Region SOA's (2011)

Resident population aged 25-64 (%) with low or no qualifications, Growth Region SOA's, 2011



Source: NISRA, NI Multiple Deprivation Measure

Workplace population aged 16-74 (%) with highest qualification below NQF level 2, Growth Region SOA's, 2011

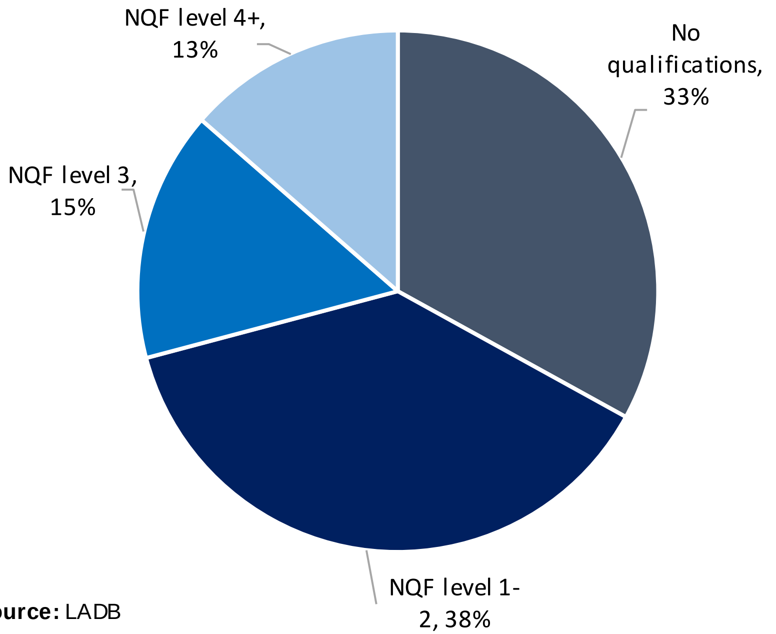


Source: NISRA, Census 2011

Significant qualification differences between employed and non-employed residents

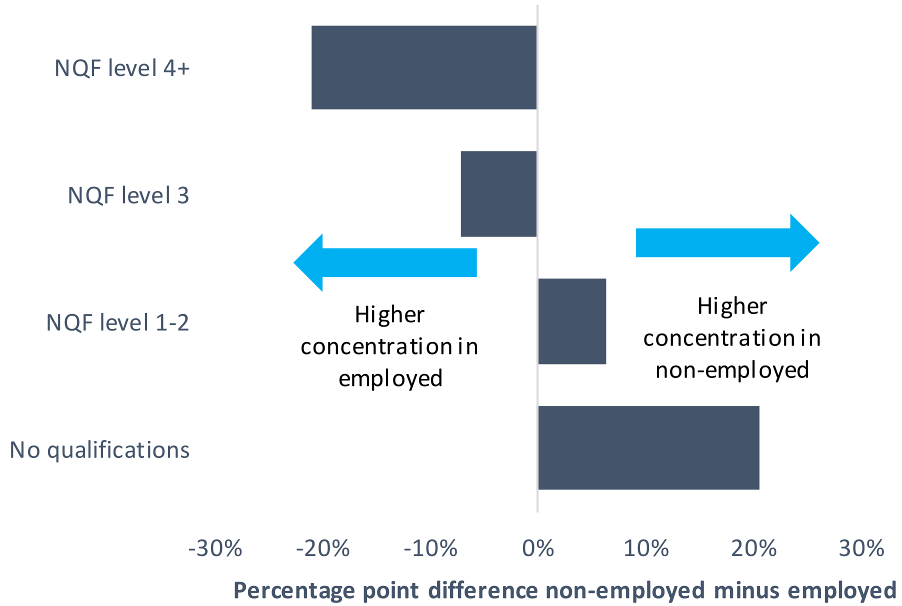
Resident qualification profile (NQF), employed versus non-employed, Growth Region (2016)

Qualification structure (NQF) of non-employed residents, Growth Region (2016)



Source: LADB

Percentage point difference in employed versus non-employed resident qualifications (NQF), Growth Region (2016)



Source: LADB

Note: Non-employed refers to the sum of unemployed and economically inactive

Summary of workplace skills structure

Workplace qualification structure versus NI - The Growth Region's workplace has a higher proportion of workers with low qualifications (NQF level 1 or below) compared to NI, 42% and 36% respectively. Contrastingly, 34% of the workplace have tertiary level qualifications in NI compared to 28% in the Growth Region.

Age profile and qualification structure - The skill profile of the Growth Region's workplace varies significantly across age brackets. That is, younger workers tend to have higher levels of qualifications relative to older people aligning to the upward trend in education participation. In the Growth Region, 57% of the workplace aged 50 and above have low qualifications (NQF level 1 or below), compared to only 36% of those workers aged under 50.

As older workers with relatively lower levels of qualifications move into retirement and higher qualified younger workers enter the labour market the Growth Region's workplace skills profile will naturally improve.

Qualification levels over time - There has been significant improvement in workplace qualification levels over a generation. However, it is important to note that low qualification levels do not always directly translate to an unskilled individual. An individual may have low level qualifications but have significant experience in the labour market and be highly skilled.

Summary of workplace skills structure (continued)

Resident qualifications versus workplace qualifications - There are differences between the level of resident qualifications and workplace qualifications. In the Growth Region, 28% of the workplace have achieved tertiary level education (NQF level 4+) compared to 24% of residents. Contrastingly, 23% of residents have no qualifications compared to 17% employed in the Growth Region's workplace.

These trends should be considered in the context of employability challenges as a mismatch between residents skills and required workplace skills can reduce employment opportunities, specifically for those at the bottom of the skills spectrum.

Employed skills versus non-employed skills - The profile of employed individual's qualifications against non-employed individuals highlights the relationship between skills and employability.

In the Growth Region, almost three quarters (71%) of non-employed residents have NQF level 2 or below qualifications, compared to 43% of the employed. Contrastingly, 13% of individuals out of work have achieved NQF level 4+ qualifications compared to 33% of the employed.

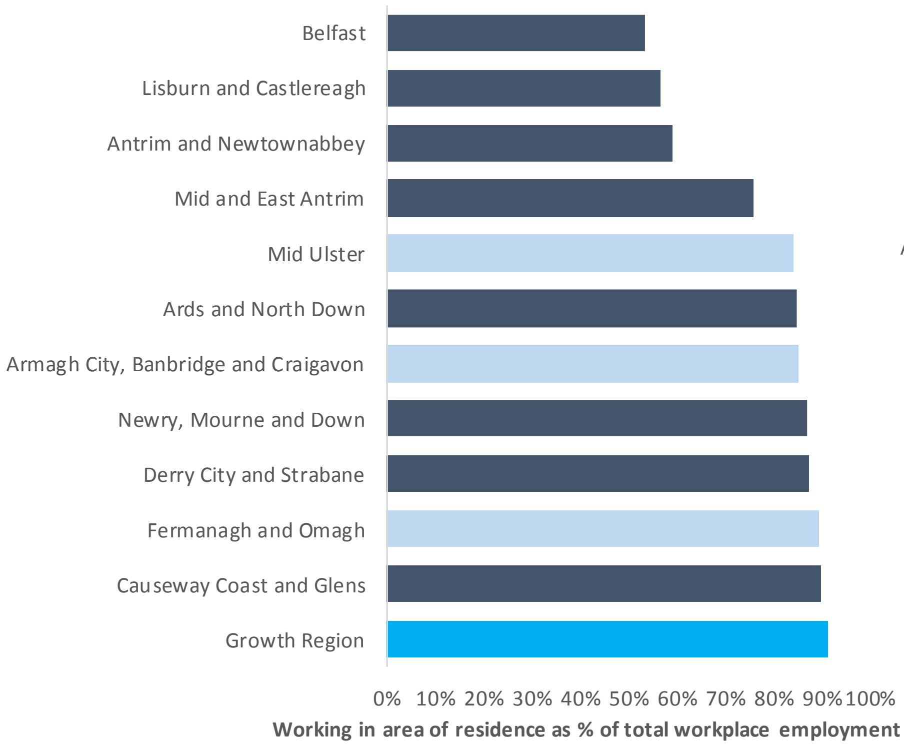
Therefore, policy ambitions to reduce the number of out of work individuals through reintegration to the labour market should consider the need for upskilling.

Commuting flows

Residents from the Growth Region account for 91% of workplace employment

Commuting incidence by LGD (2011)

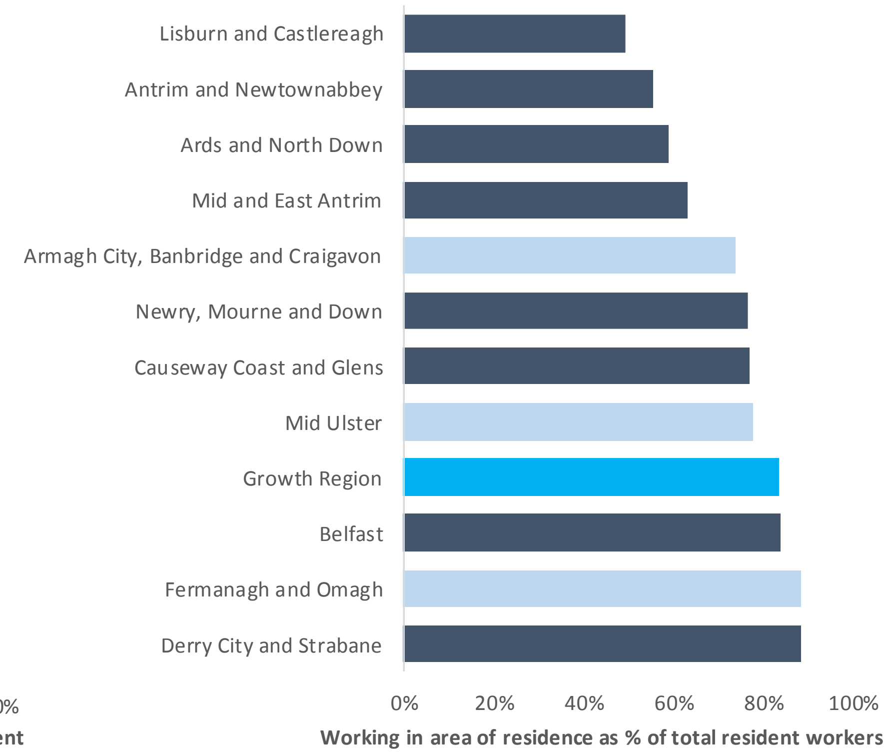
Resident employment within council as a proportion of total workplace employment (excluding students), LGDs (2011)



Source: NI Census 2011

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

Resident employment within council as a proportion of total resident employment (excluding students), LGDs (2011)



Source: NI Census 2011

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

Residents in the Growth Region account for 91% of total workplace employment, there are relatively few in-commuters to the region. However, given the proximity to the border there is likely to be some degree of in-commuting not captured within this data. On the other hand residents from the Growth Region that work within the Growth Region account for 84% of total resident employment, suggesting 16% of residents commute elsewhere.

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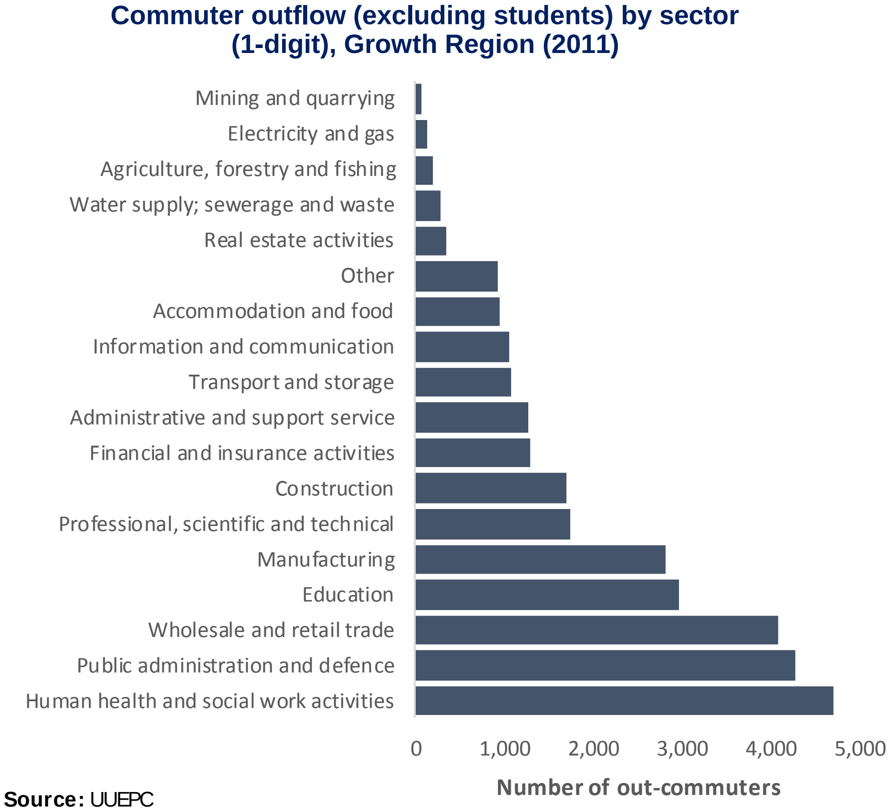
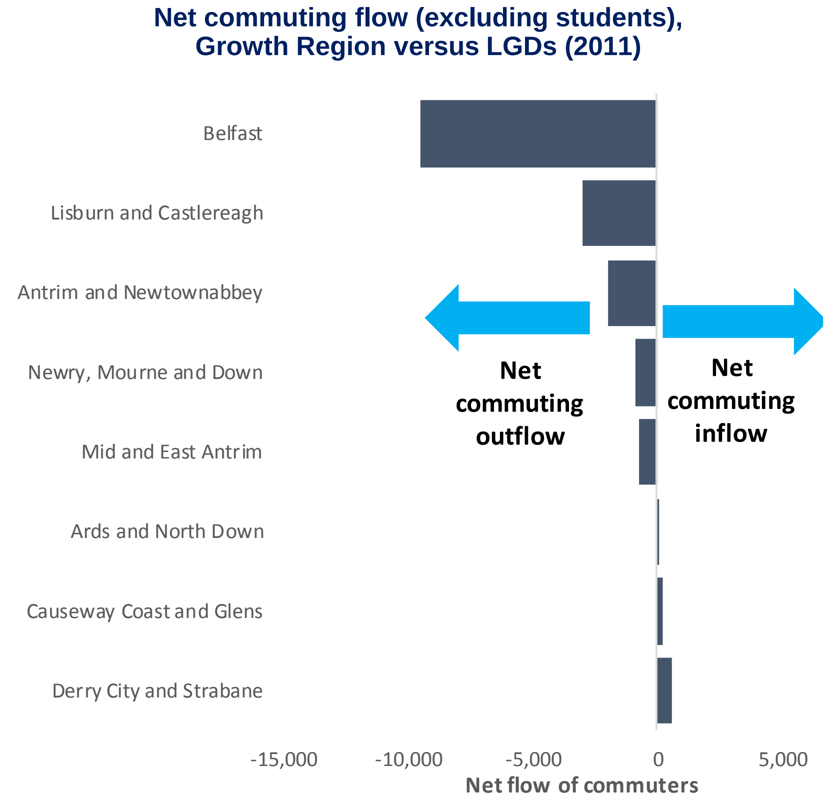
The Growth Region has a net commuting outflow

Commuting patterns in the Growth Region (2011)



Source: UUEPC



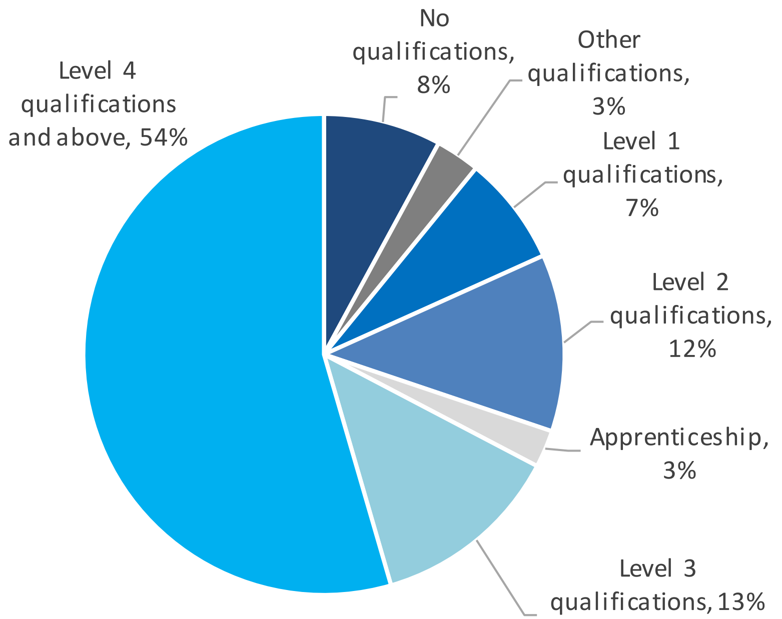
Source: Census 2011

The Growth Region holds a net commuting outflow with five of the nine LGD's. This translates to more workers leaving the Growth Region for employment than entering the Growth Region from another LGD to work. The largest net outflow of workers from the Growth Region is to Belfast, followed by Lisburn and Castlereagh. Workers typically leave the Growth Region to work in public sectors: health and social work (4,700); and public administration and defence (4,300).

Over half of Growth Region out-commuters have degree level or above qualifications

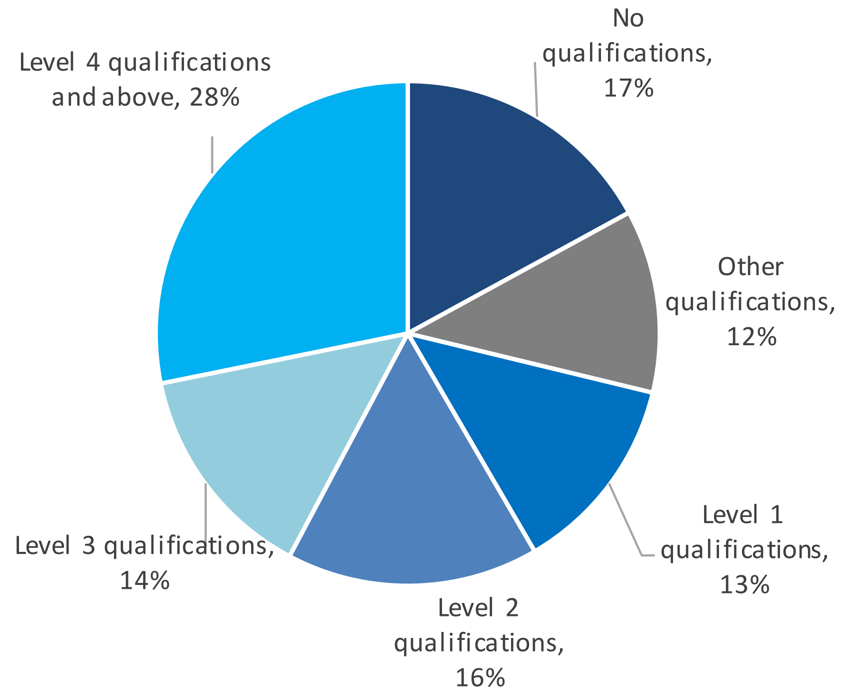
Skill differences between residents and commuters working in the Growth Region (2011)

Highest level of qualification of Growth Region residents (excluding students) working elsewhere (out-commuters) (2011)



Source: Census 2011

Highest level of qualification of Growth Region residents working in the Growth Region (2011)



Source: Census 2011

Over half (54%) of Growth Region out-commuters have tertiary level qualifications (NQF level 4+), compared to 28% of the Growth Region residents employed in the Growth Region. Likewise, only 18% of out-commuters have below NQF level 2 qualifications compared to 42% of the Growth Region residents employed in the Growth Region. This highlights the relationship between qualifications and commuting.

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Summary of commuting flows

Commuters - The vast majority of the Growth Region's workforce reside within the Growth Region (91%). However, it is estimated around 16% of employed residents commute outside the region for employment. The largest net commuting flow is to Belfast, followed by Lisburn and Castlereagh.

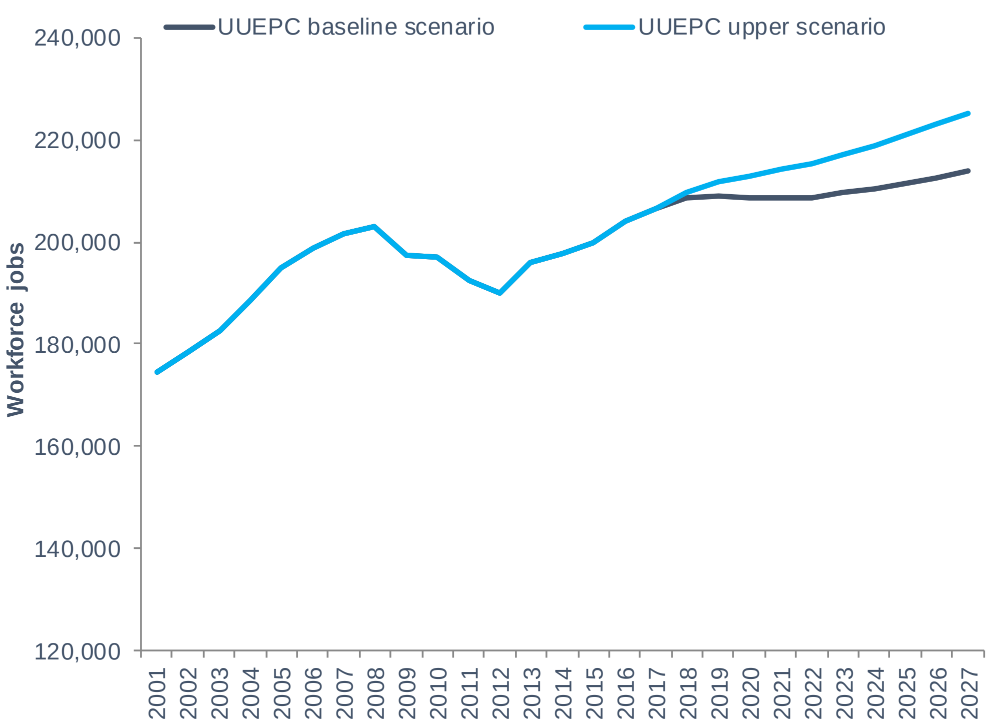
Out-commuters by sector - In the Growth Region, more workers leave for employment outside the region (most likely to Belfast) than enter to work in the Growth Region from another region. Workers typically commute out of the Growth Region for jobs within health and social (4,700); public administration (4,300); and wholesale and retail (4,100).

Out-commuters by skill - On average workers commuting out of the Growth Region have higher levels of qualifications than the Growth Region residents working in the region. For example, over half (54%) of the Growth Region out-commuters have tertiary level qualifications (NQF level 4+), compared to 28% of employed residents. Likewise, only 18% of out-commuters have below NQF level 2 qualifications compared to 42% of employed residents.

High growth scenario

UUEPC's high growth scenario predicts 18.8k extra jobs – 11.4k above the baseline by 2027

Workforce jobs, high growth versus baseline scenarios, Growth Region (2001-2027)



Source: UUEPC

UUEPC's high growth scenario outputs are aligned to NI achieving future policy success aligning to targets set within the Programme for Government (PfG).

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.

The model accounts for three scenarios; baseline; central; and high growth. This report will focus on outputs from the high growth scenario.

UUEPC estimates that under a high growth scenario employment in the Growth Region has the potential to grow from 206,600 in 2017 to 225,300 in 2027.

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Planning for skills in an aspirational nature

It is prudent to plan for skill needs in an aspirational nature based on economic ambitions of an economy. If such ambitions are not met there is a cost to individuals achieving such skills however research suggests this cost is lower than the cost of undersupplying skills.

For example, if businesses are unable to meet their demand for skilled labour the competitiveness of an economy will fall, productive capacity decrease ultimately dampening future job growth.

Likewise, it is important to have in place measures to offset any potential individual costs if policy ambitions are not met leading to an oversupply of skills.

For example, a contingency plan may include conversion courses for redundant workers or training rights for young people unable to secure employment after graduation.

Note: The results for a lower growth baseline scenario are provided in Annex A.

IT and professional service sectors are forecast to grow most rapidly over the coming decade

Baseline scenario and high growth scenario job growth by sector (1-digit), Growth Region (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	15,930	-1,070	-510	-0.3%	-1.4%
Mining	1,120	-30	-30	-0.2%	-2.3%
Manufacturing	36,320	+2,770	+3,870	1.0%	4.9%
Electricity & gas	410	+90	+130	2.8%	25.4%
Water supply & waste	1,480	+130	+190	1.2%	2.5%
Construction	18,580	+1,000	+2,210	1.1%	2.9%
Wholesale & retail	34,100	-550	-230	-0.1%	0.4%
Transport & storage	7,790	+700	+1,010	1.2%	2.2%
Restaurants and hotels	9,860	+940	+1,760	1.7%	3.2%
Information & communication	1,650	+210	+820	4.1%	2.0%
Finance & insurance	2,100	-50	+480	2.1%	-3.7%
Real estate	950	+40	+110	1.1%	-3.8%
Professional scientific & technical	6,620	+1,090	+3,430	4.3%	3.0%
Administrative & support services	8,350	+1,060	+1,540	1.7%	6.4%
Public admin & defence	8,340	-460	+120	0.1%	-2.4%
Education	17,070	+130	+510	0.3%	0.3%
Health & social work	27,270	+1,240	+2,630	0.9%	0.2%
Arts & entertainment	3,960	+80	+460	1.1%	2.1%
Other service activities	4,680	+30	+260	0.5%	9.3%
Total	**206,590**	**+7,350**	**+18,760**	**0.9%**	**1.7%**

Source: UUEPC

Note: Figures may not sum to total due to rounding

Relative to the baseline, the additional 11.4k jobs are primarily generated within the following sectors; professional scientific and technical (2,340 jobs above baseline); health and social work (1,390 jobs above baseline); and construction (1,210 jobs above baseline).

The sectors expected to contribute the largest increase in jobs in absolute terms over the period 2017-2027 are: manufacturing (3,870); professional scientific and technical (3,340); and health and social (2,630).

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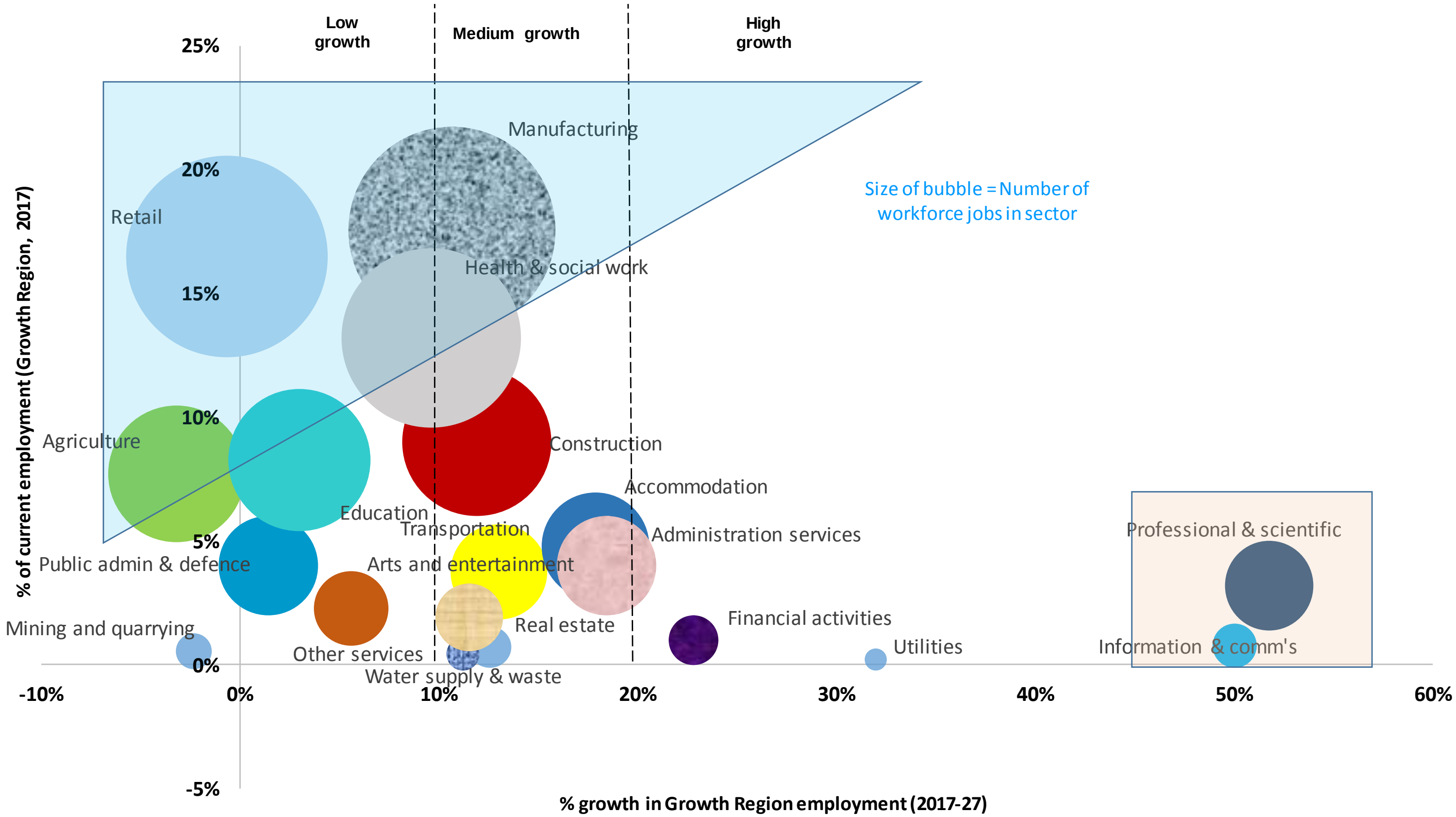
Significantly high growth expected in IT and professional services

Workforce job growth by sector (1-digit) and number of jobs (workplace based), Growth Region (2017-2027)



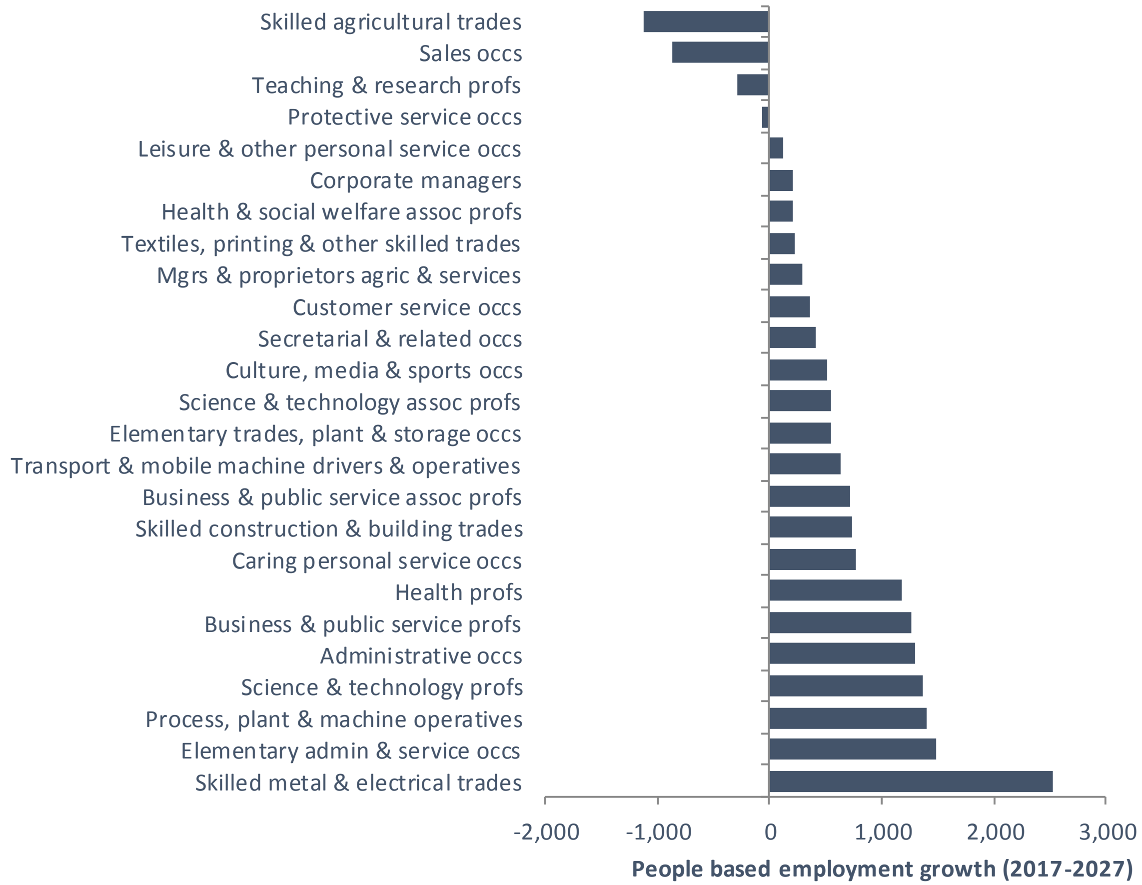
Source: UUEPC

Note: Triangle highlights largest sectors. Square highlights fastest growing sectors in NI high growth scenario

Medium to large employment sectors such as manufacturing and construction are expected to have relatively medium growth rates over the coming decade, 11% and construction 12% respectively. Given the large scale of such sectors these growth rates will still constitute significant job numbers (3,900 and 2,210 jobs respectively).

Largest growth forecast within skilled metal and electrical trades

Employment growth (people based) by occupation (2 digit), Growth Region (2017-2027)



Source: UUEPC

Occupations accounting for the largest absolute growth over the coming decade are skilled metal and electrical trades (2,500), elementary administration and service occupations (1,500) and process, plant and machine operatives (1,400).

Metal machining, fitting and instrument making trades set to be the largest contributor to job growth

Employment growth (people based) by occupation (3 digit), Growth Region (2017-2027)

Source: UUEPC

A granular analysis of occupation growth highlights specific areas of expected growth. At a detailed level metal machining, fitting and instrument making trades are expected to see the highest amount of absolute growth (1,000) over the coming decade, followed by nursing and midwifery professionals (800) and other elementary service occupations (700).

Summary of UUEPC's high growth scenario

High growth scenario - UUEPC's high growth scenario is aligned (but not directly linked) to the general economic ambitions of LGDs, forecasting 18,800 additional jobs over the period 2017-2027. That is, 2.6 times as many jobs forecast in the baseline scenario.

Sector growth over coming decade - The fastest growing sectors are expected to be professional services (4.3% per annum) and IT (4.1% per annum) over the period 2017-2027.

In absolute terms the largest growth is expected to be in manufacturing (3,870) and professional scientific and technical (3,430).

Occupation growth over coming decade - The occupation forecast to account for the largest absolute growth over the period 2017-2027 is skilled metal and electrical trades (2,500) followed by elementary administration and service occupations (1,500) and process, plant and machine operatives (1,400).

At a more granular level the occupations (3-digit) expected to grow most rapidly in absolute terms are metal machine fitting and instrument making trades (1000), nursing and midwifery professionals (800) and other elementary service occupations (700). Occupation growth is linked to the forecast sectoral structure of the Growth Region.

Demand side – Sectors and occupations

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Demand side concepts

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 can not be filled from within the existing labour market and therefore must be met from those leaving education and/ or from migration. The annual average net requirement does not include the positions to be filled by labour market participants from other sectors, from unemployment or from economic inactivity.

Annual average gross demand in simple terms, refers to all vacancies to be filled in a year. It is the total expansion and replacement demand for staff per annum and the jobs are filled by those currently working in the labour market, those currently out of work and also those from education and migration.

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Net requirement from education and migration

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.

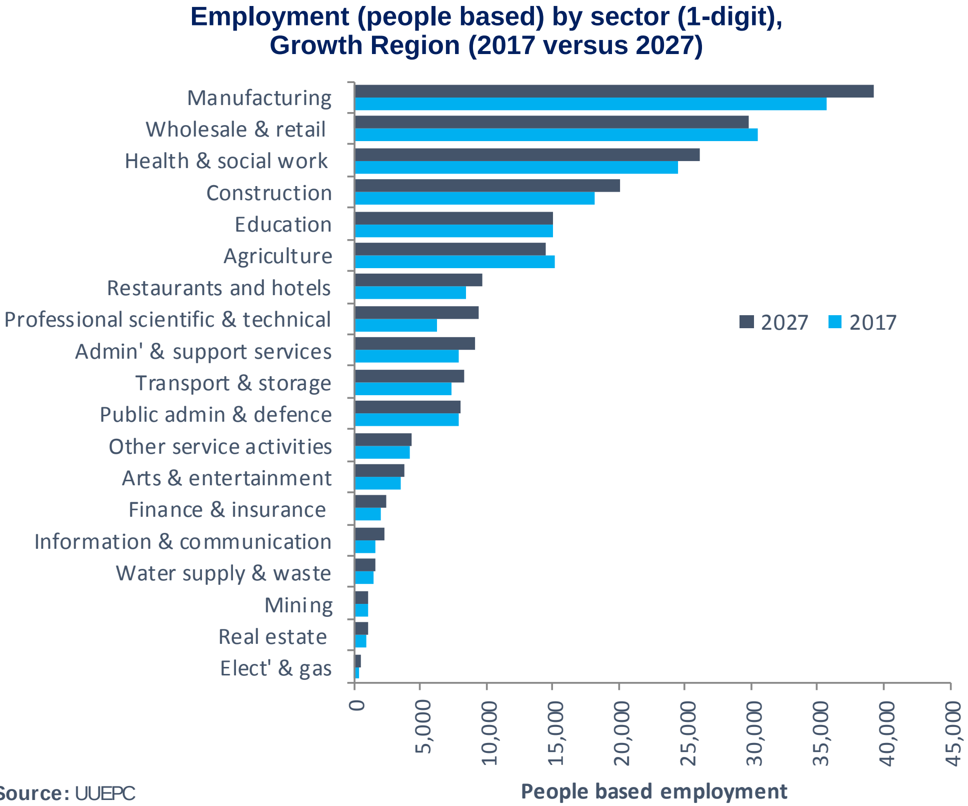
It takes account of ‘churn’ in the labour market. Skills demand associated with replacement demand is dependent largely on the existing stock and skill needs of current jobs. It can be compared directly to education outputs and the level of migrant inflows and is therefore useful for skills and wider workforce planning.

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.

The expansion demand (net change in the stock of jobs) is often more widely understood 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.

Manufacturing is forecast to remain the largest employer in the Growth Region

Employment (people based) by sector (1-digit), Growth Region (2017-2027)

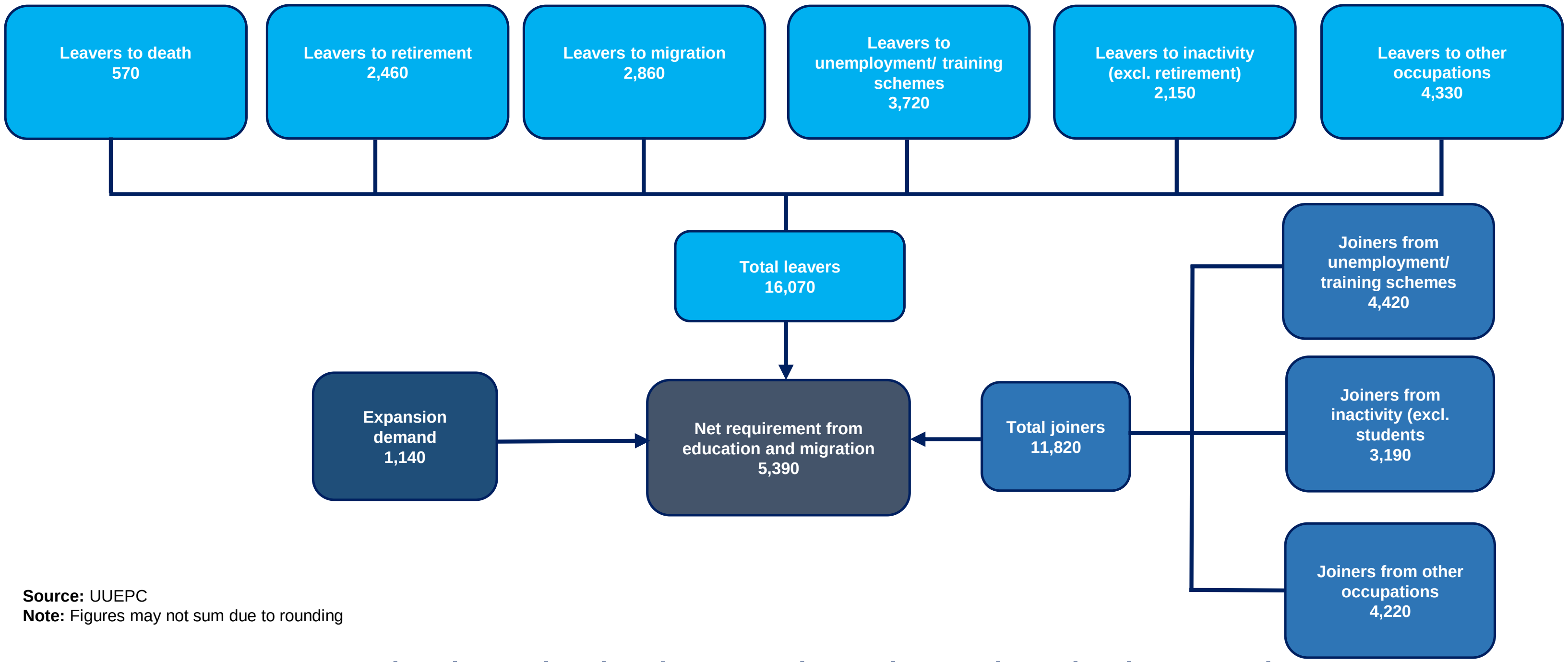


Source: UUEPC

Source: UUEPC

Labour market flows determine skills demand

Components of net requirement from education and migration, Growth Region (2017-2027)



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

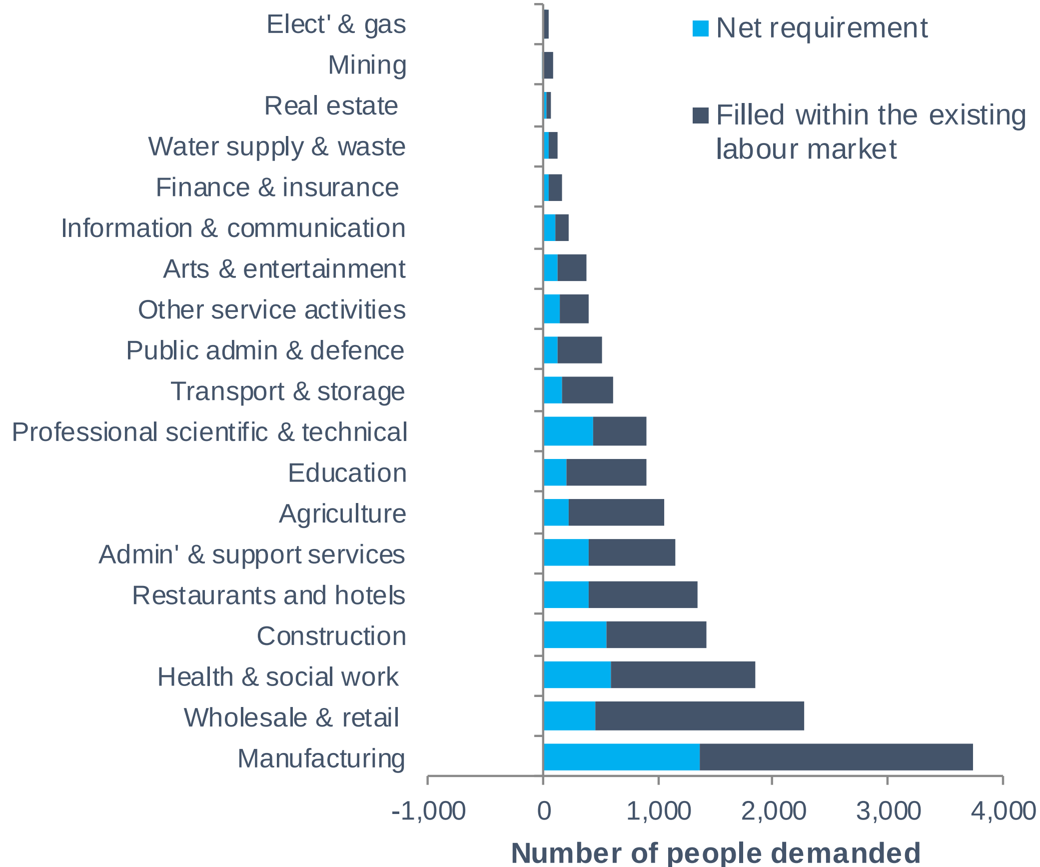
Expansion demand and replacement demand, Growth Region (2017-2027)

Demand category	2012-2017 (annual)	2017-2027 (annual)
(A) Gross demand	17,070	17,210
(B) Expansion demand	1,140	1,140
(C) Replacement demand	15,930	16,070
(D) Filled from within the existing labour market	11,880	11,820
(E) Net replacement demand	4,050	4,250
(F) Net requirement from education and migration	**5,190**	**5,390**

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

A high proportion of job opportunities filled from within the existing labour market across sectors

Average annual gross demand by sector (1-digit), Growth Region (2017-2027)



Source: UUEPC

Gross demand highlights a significant number of total job opportunities are filled from recruitment within the existing labour market (i.e. employed or unemployed). For example, in wholesale and retail 80% of total job opportunities are expected to be filled by individuals already within the existing labour market compared to 20% filled by net requirement from education and migration.

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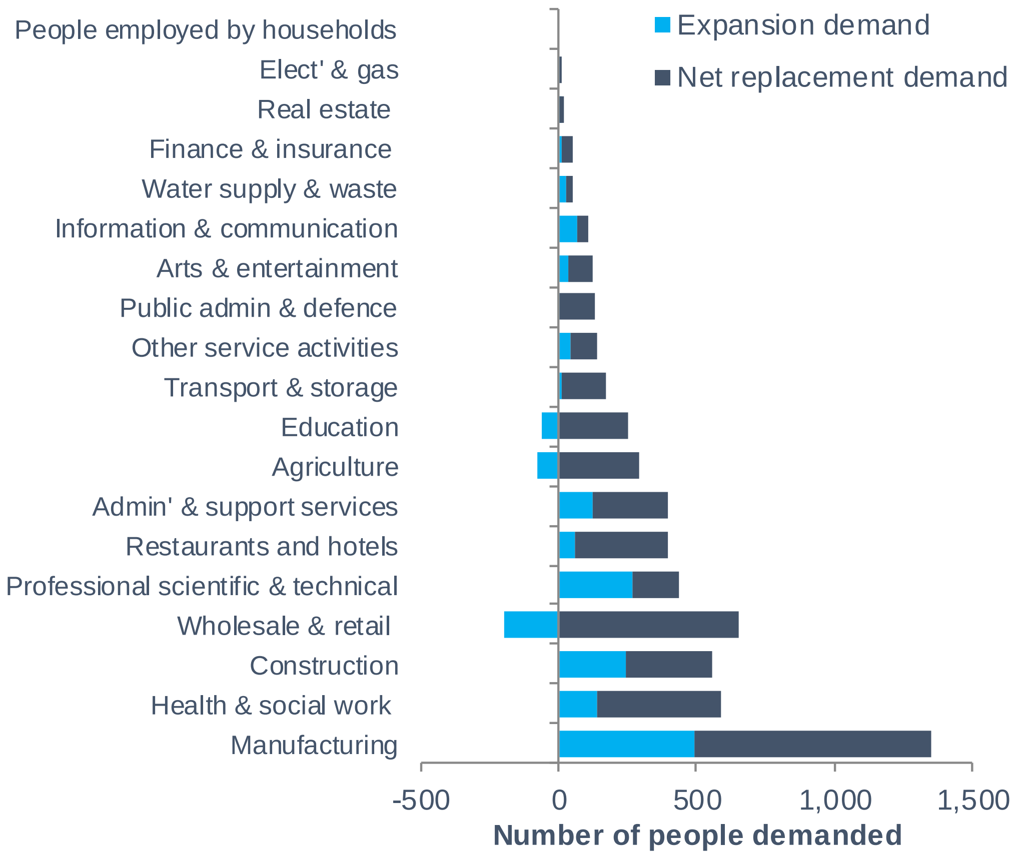
Sectors do not have to be growing fast to create a plentiful supply of opportunities

Average annual net requirement from education and migration by sector (1-digit), Growth Region (2017-2027)

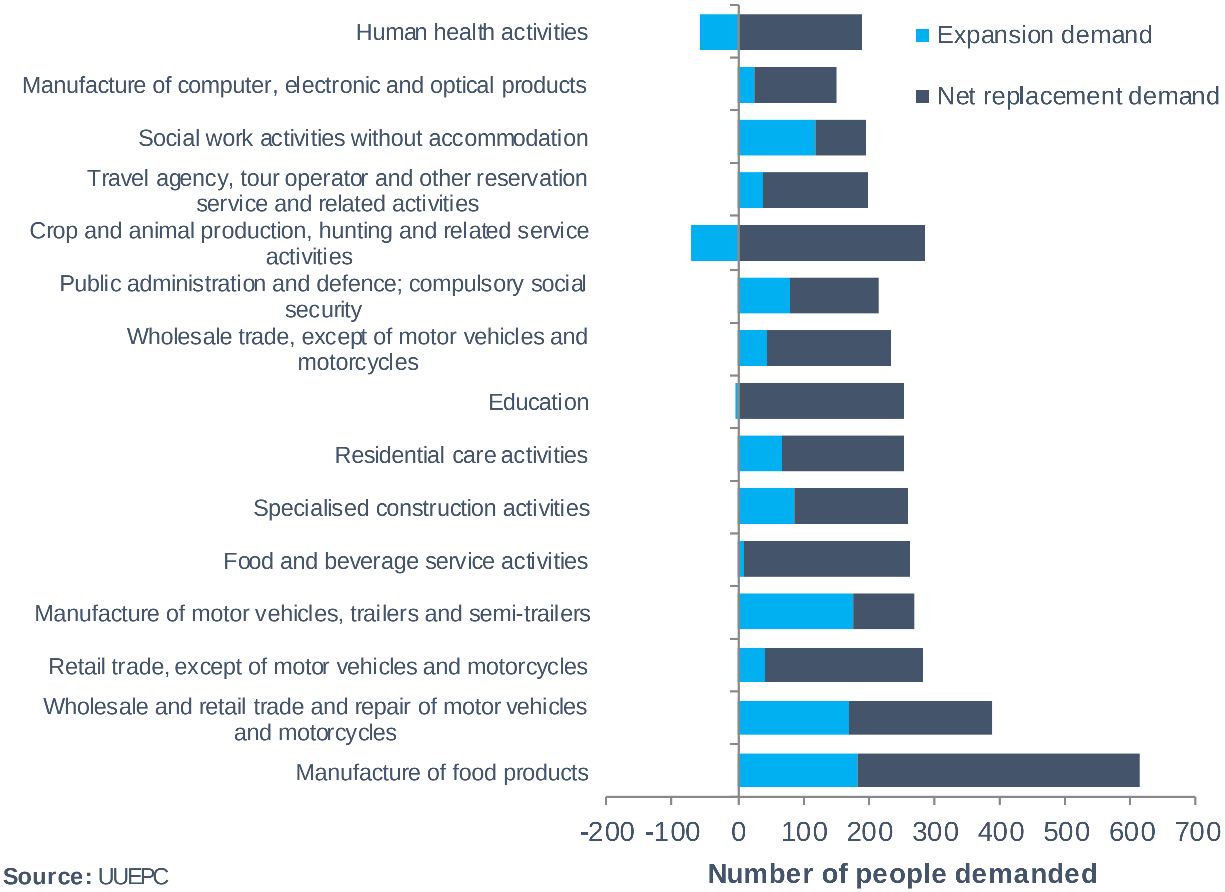


Source: UUEPC

The composition of expansion demand and replacement demand within a sector depends upon the sectoral nature. For example, expansion demand is likely to account for the majority of net requirement in a sector with projected high growth rates i.e. professional and scientific.

Manufacturing of food products constitutes the highest labour demand

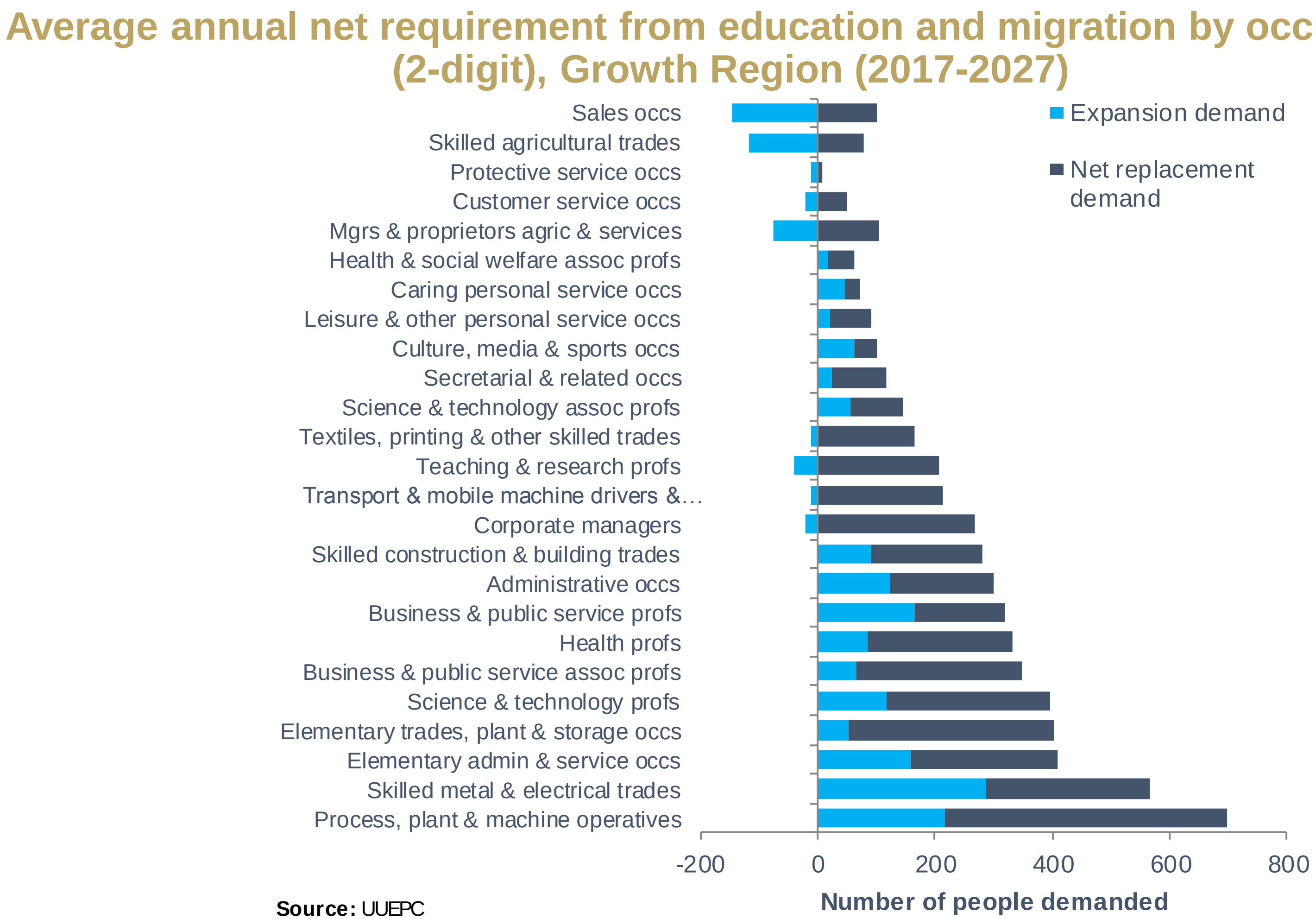
Average annual net requirement from education and migration by sector (top 15, 2-digit), Growth Region (2017-2027)



Source: UUEPC

A more granular analysis of labour demand highlights the top 15 detailed sectors (2-digit) account for 72% of total net requirement. The largest net requirement is manufacture of food products (11% of total net requirement) followed by retail trade (7%).

Occupation demand is a function of sector growth (expansion) and scale (replacement)

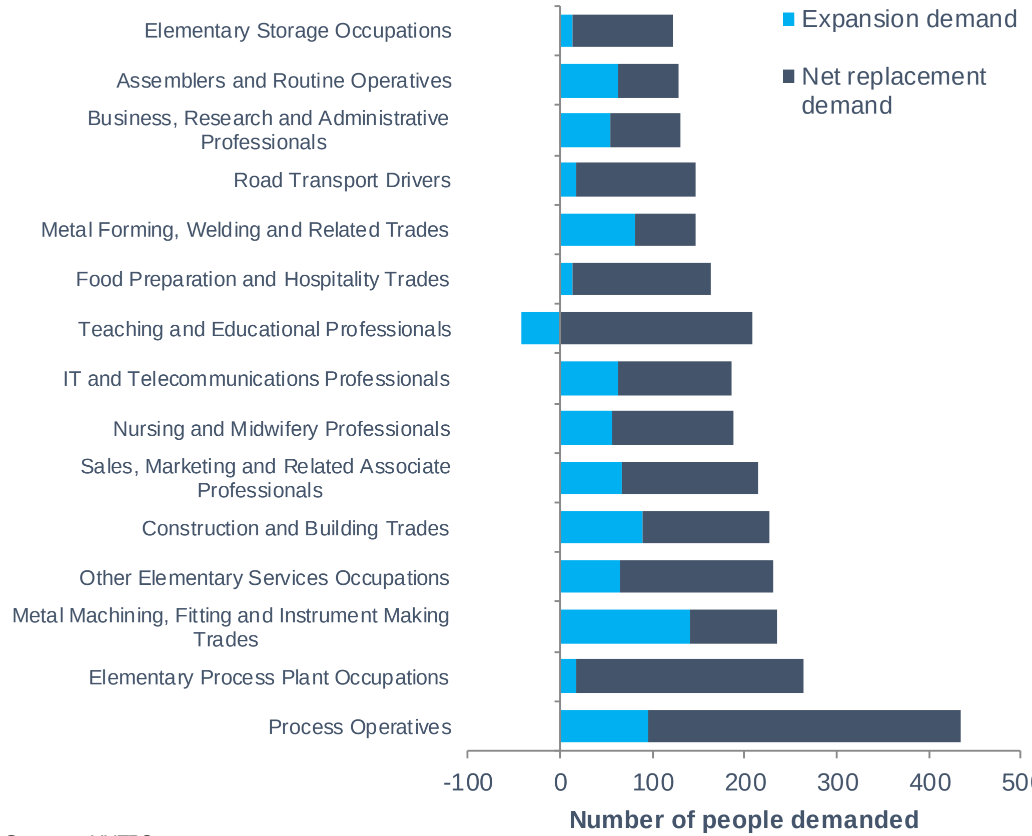


Source: UUEPC

Occupations that are expected to provide the most job opportunities in the coming decade are process, plant and machine operatives (13% of total net requirement), skilled metal and electrical trades (11%), and elementary administration and service occupations (8%).

Process operative occupations are forecast to create the largest net requirement

Average annual net requirement from education and migration by occupation (top 15 3-digit), Growth Region (2017-2027)



Source: UUEPC

At a more detailed level the occupations (3-digit) expected to be in 'high demand' over the coming decade are process operatives (8% of the net requirement), elementary process plant operatives (5%) and metal machining, fitting and instrument making trades (4%).

Summary of demand side sectors and occupations

Demand side concepts - It is important to fully understand each of the demand side concepts and recognise how they interact with one another.

Labour market flows and skills demand - The largest component of labour demand comes from replacing workers who have created a vacancy by leaving their position (for retirement, sickness, moving to another job etc.). However, most of these vacancies will be taken by people already within the labour market (e.g. job movers, individuals moving from unemployment to employment).

This replacement demand under a high growth scenario is expected to be 16,070 over the next 10 years compared to expansion demand of 1,140.

Vacancies not filled by labour market participants must be filled by either leavers from the education system or migrants. In the Growth Region the average annual individuals required from education and migration is 5,390 over the 2017-2027 period.

Gross demand by sector - The sector expected to require the largest gross demand over the 2017-2027 period is manufacturing (22% of total gross demand) followed by wholesale and retail (13%) and health and social work (11%).

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Summary of demand side sectors and occupations (continued)

Net requirement by sector - In high growth sectors expansion demand accounts for a more significant proportion of overall labour demand. For example, professional scientific and technical is relatively small in scale but is forecast to experience rapid growth. Therefore expansion demand accounts for 62% of net requirement and replacement demand 38%.

In other sectors a sizeable amount of labour demand is driven by replacement demand rather than expansion of the sector. For example, restaurants and hotels has high entry and exit rates. Therefore, 86% of labour demand comes from vacancies created by workers who leave their jobs and 14% from expansion demand.

Net requirement by occupation - The occupations forecast to provide the most job opportunities for education leavers and migrants are process, plant and machine operatives (13% of total net requirement), skilled metal and electrical trades (12%) and elementary trades, plant and storage occupations (8%).

At a more granular level the top 15 occupations (3-digit) account for 56% of the total net requirement. The largest net requirement in detailed occupations is expected in process operatives (8% of net requirement), elementary process plant operatives (5%) and metal machining, fitting and instrument making (4%).

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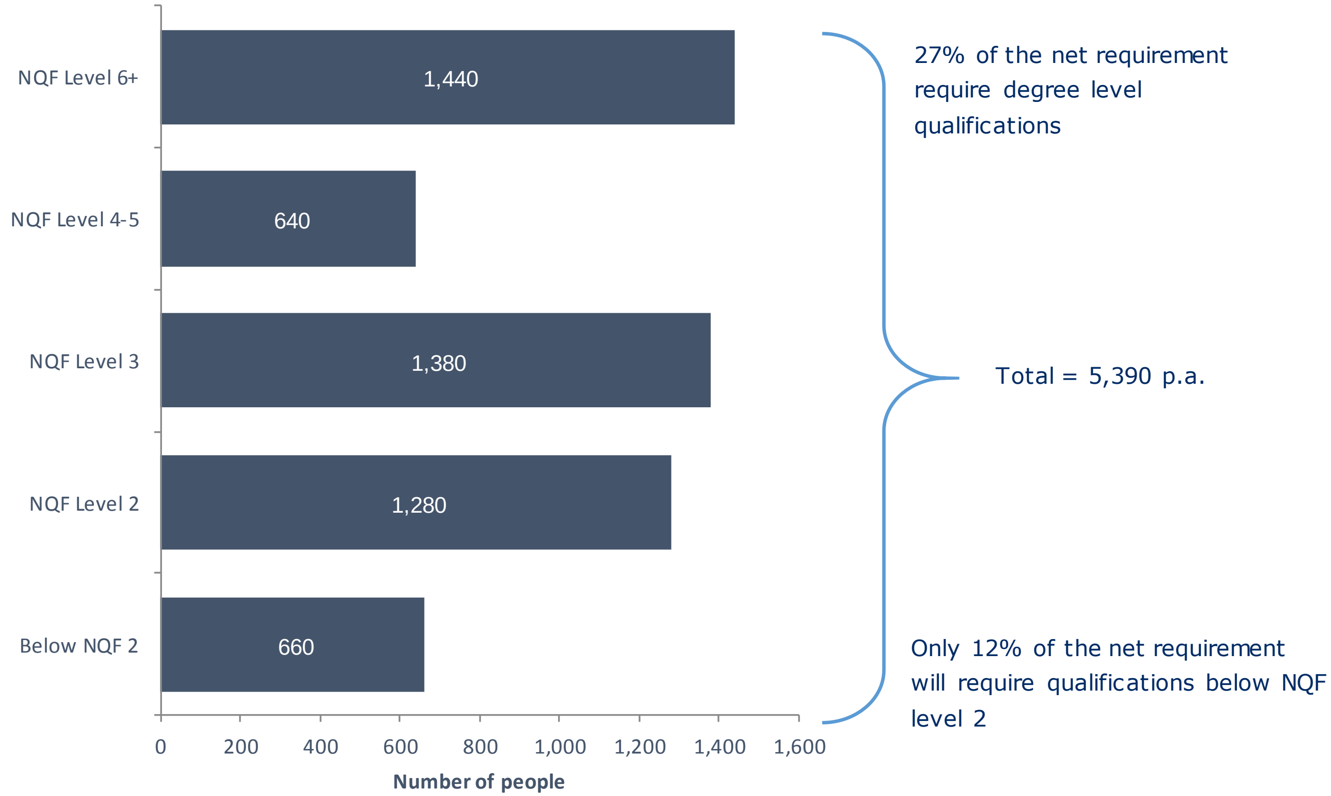
Demand side - Qualifications

Demand for graduates in the Growth Region is below the NI average

Average annual net requirement by qualification (NQF), Growth Region (2017-2027)



Source: UUEPC

UUEPC's skills model estimates the net requirement by highest NQF level. The Growth Region is expected to require 1,440 graduates per annum over the next decade, accounting for 27% of the net requirement. However, it should be noted skills and qualifications are not the same. For example, labour may be highly skilled but have low levels of formal qualifications (particularly older workers) and vice versa.

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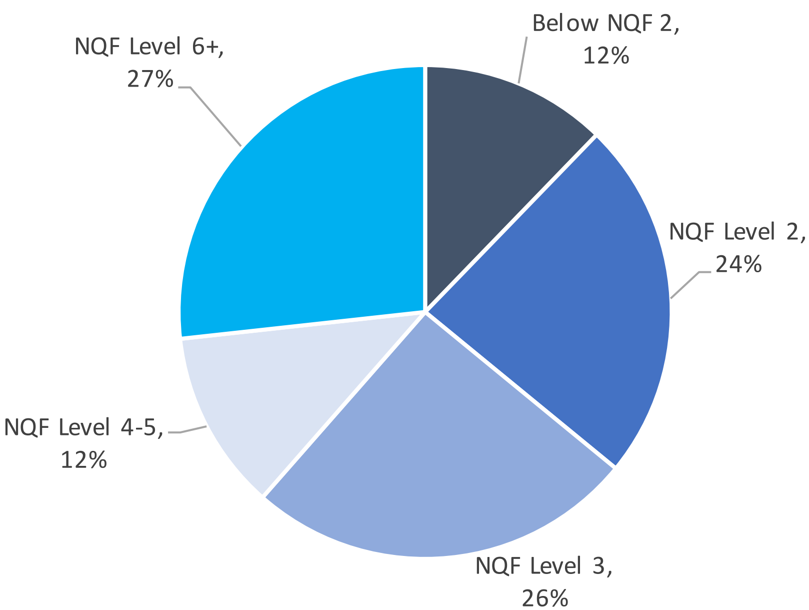
The profile of demand is more graduate intensive than the current stock of skills

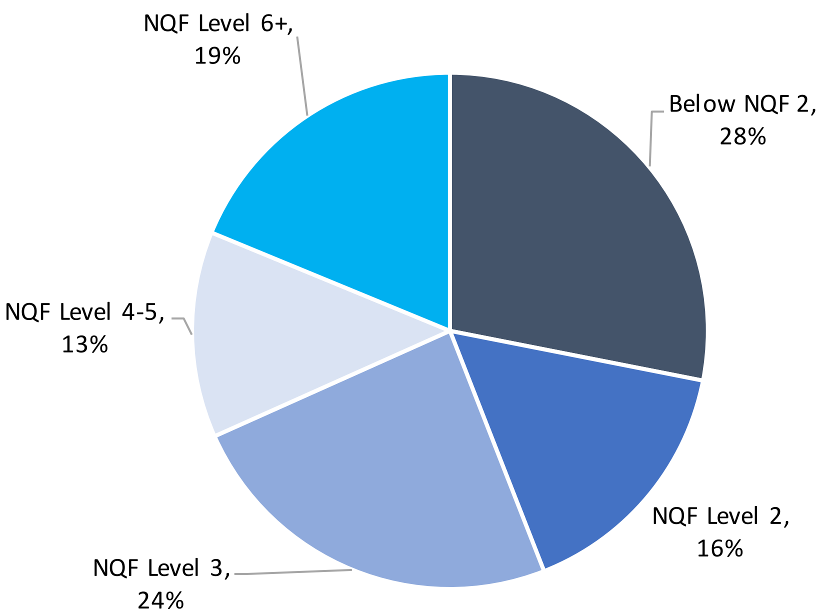
Average annual net requirement by qualification (NQF) versus current workforce qualification (NQF) profile, Growth Region (2017-2027)

Average annual net requirement by qualification (NQF), Growth Region (2017-2027)



Source: UUEPC

Qualification profile of employed, Growth Region (2016)



Source: UUEPC

Increasing HE participation levels and employers attitudes towards qualifications has influenced the higher weighting towards degree level qualifications in the workplace, squeezing out the lower qualified. For example, just over one quarter (28%) of the employed hold a qualification below NQF level 2, future demand is forecast to require only 12% of workers with below NQF level 2. This implies the current qualification profile of the employed does not match future skill needs.

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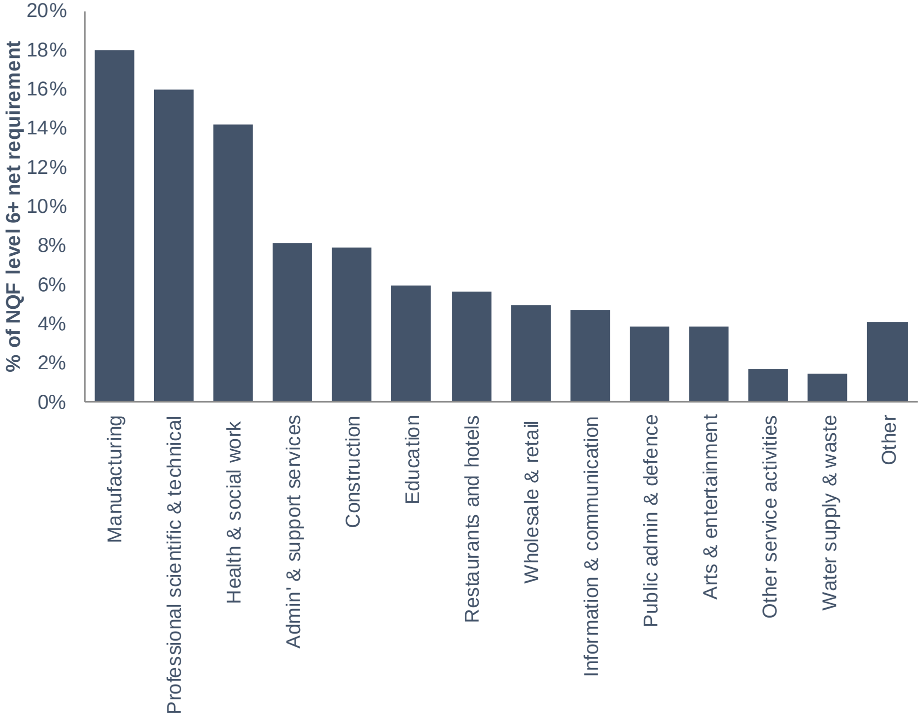
Manufacturing accounts for 18% of graduate demand

Average annual net requirement for NQF level 6+ by sector, Growth Region (2017-2027)

Average annual net requirement for NQF level 6+ by sector (1-digit), Growth Region (2017-2027)



Source: UUEPC

Average annual net requirement for NQF level 6+ by sector (2-digit top 15), Growth Region (2017-2027)

2 digit SIC	% of NQF level 6+ net requirement
Human health activities	8.0%
Manufacture of food products	7.6%
Residential care activities	6.0%
Education	5.9%
Civil engineering	4.7%
Food and beverage service activities	4.3%
Scientific research and development	3.9%
Public administration and defence; compulsory social security	3.9%
Wholesale trade, except of motor vehicles and motorcycles	3.4%
Travel agency, tour operator and other reservation service and related activities	3.3%
Manufacture of computer, electronic and optical products	3.3%
Legal and accounting activities	3.3%
Specialised construction activities	3.2%
Activities of head offices; management consultancy activities	2.8%
Architectural and engineering activities; technical testing and analysis	2.6%

Source: UUEPC

The proportion of graduates required from education and migration varies across sectors. For example, in the professional services sector 53% of the net requirement is forecast to require at least an undergraduate level degree, compared to 35% in health and social work professionals.

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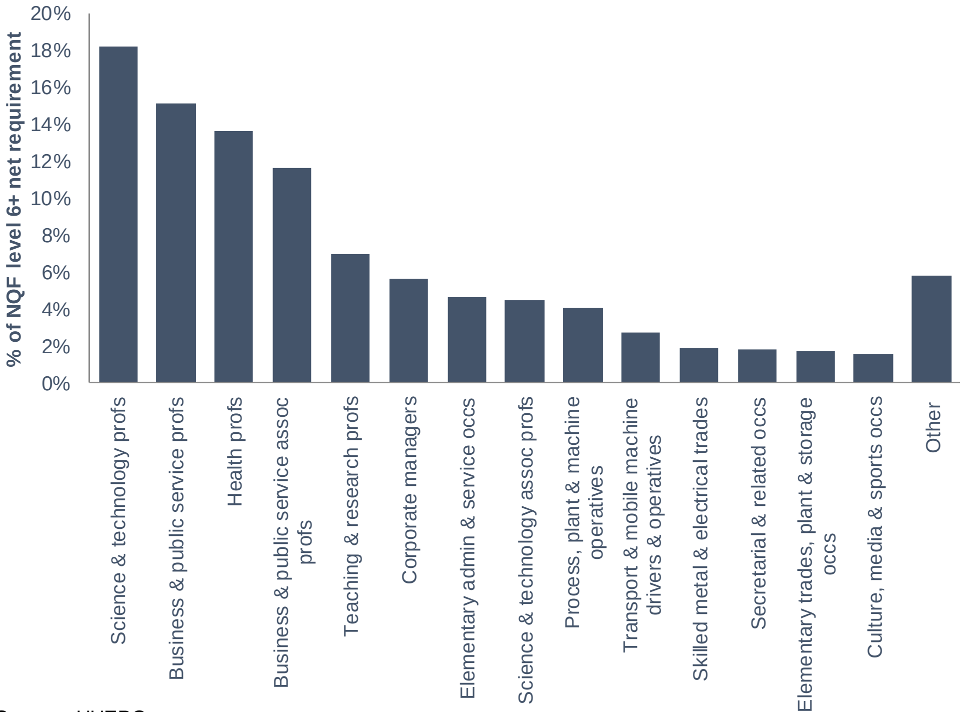
Science and technology graduates require 18% of graduate demand

Average annual net requirement for NQF level 6+ by occupation, Growth Region (2017-2027)

Average annual net requirement for NQF level 6+ by occupation (2-digit), Growth Region (2017-2027)



Source: UUEPC

Average annual net requirement for NQF level 6+ by occupation (top 15 3-digit), Growth Region (2017-2027)

3 digit SOC	% of NQF level 6+ net requirement
Information technology and telecommunications professionals	8.6%
Nursing and midwifery professionals	7.7%
Sales, marketing and related associate professionals	7.2%
Teaching and educational professionals	7.0%
Business, research and administrative professionals	6.2%
Engineering professionals	4.7%
Health professionals	4.5%
Natural and social science professionals	3.5%
Architects, town planners and surveyors	2.8%
Public services and other associate professionals	2.8%
Other elementary services occupations	2.6%
Quality and regulatory professionals	2.6%
Process operatives	2.5%
Managers and directors in retail and wholesale	2.2%
Science, engineering and production technicians	2.1%

Source: UUEPC

The occupation profile of the net requirement is driven by the Growth Region's sectoral structure. The occupations which account for the highest proportion of net requirement are science and technology professionals (18% of net requirement), business and public service professionals (15%) and health professionals (14%).

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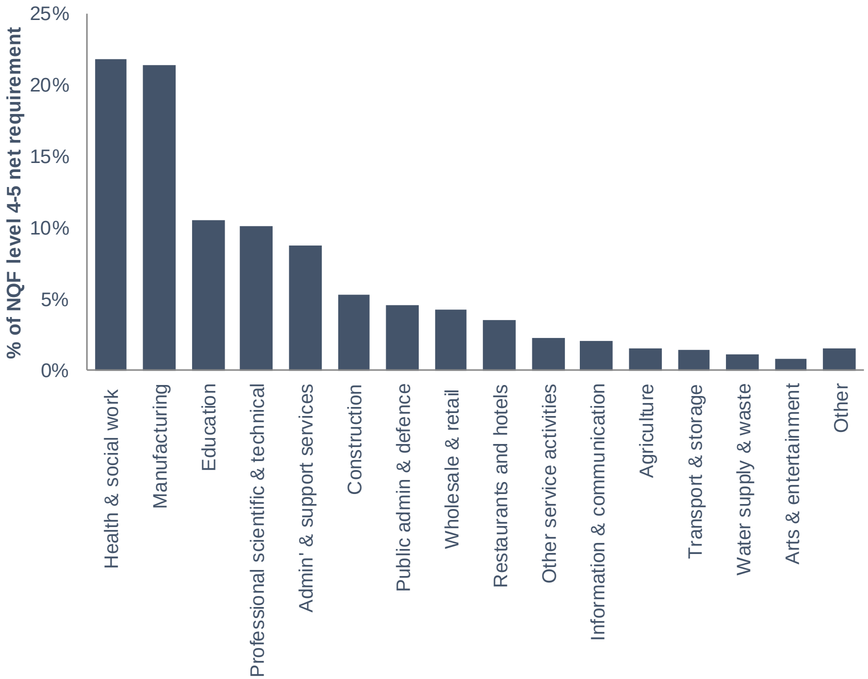
Health and social work sector requires over one fifth of sub-degree qualifiers demanded

Average annual net requirement for NQF level 4-5 by sector, Growth Region (2017-2027)

Average annual net requirement for NQF level 4-5 by sector (1-digit), Growth Region (2017-2027)



Source: UUEPC

Average annual net requirement for NQF level 4-5 by sector (top 15 2-digit), Growth Region (2017-2027)

2 digit SIC	% of NQF level 4-5 net requirement
Human health activities	12.9%
Manufacture of food products	10.9%
Education	10.5%
Residential care activities	8.7%
Public administration and defence; compulsory social security	4.6%
Legal and accounting activities	4.6%
Travel agency, tour operator and other reservation service and related activities	4.0%
Civil engineering	3.4%
Manufacture of computer, electronic and optical products	3.1%
Manufacture of machinery and equipment n.e.c.	2.9%
Wholesale and retail trade and repair of motor vehicles and motorcycles	2.5%
Food and beverage service activities	2.4%
Office administrative, office support and other business support activities	2.1%
Specialised construction activities	2.0%
Repair of computers and personal and household goods	1.8%

Source: UUEPC

The industry mix of NQF level 4-5 demand is similar to NQF level 6+. The sectors accounting for the largest proportion of NQF level 4-5 net requirement are health and social work (22%), manufacturing (21%) and education (11%).

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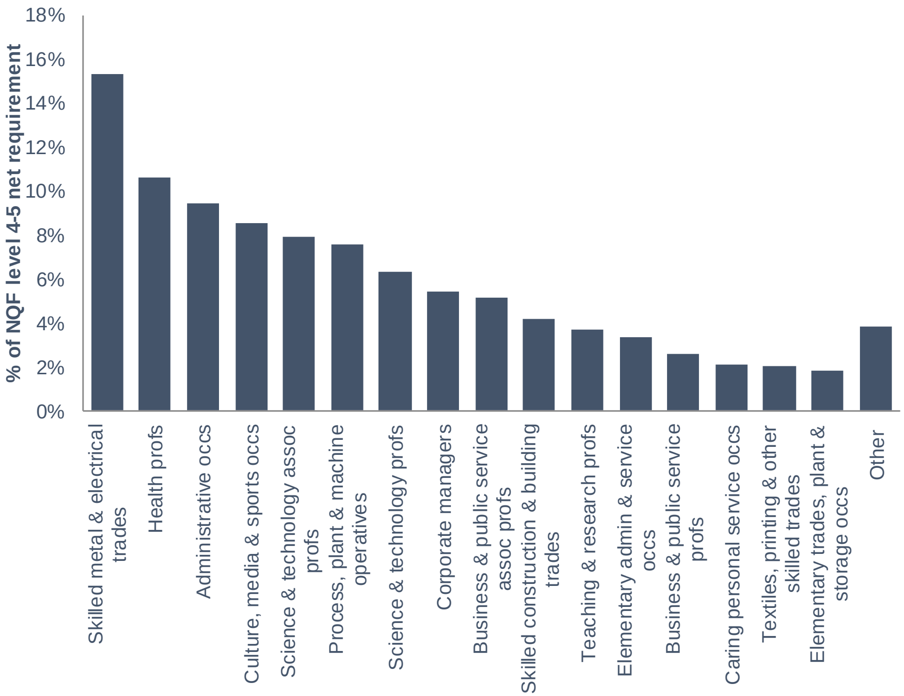
Skilled metal and electrical trades require the highest proportion of sub-degree qualifiers demanded

Average annual net requirement for NQF level 4-5 by occupation, Growth Region (2017-2027)

Average annual net requirement for NQF level 4-5 by occupation (2-digit), Growth Region (2017-2027)



Source: UUEPC

Average annual net requirement for NQF level 4-5 by occupation (top 15 3-digit), Growth Region (2017-2027)

3 digit SOC	% of NQF level 4-5 net requirement
Metal machining, fitting and instrument making trades	6.4%
Nursing and midwifery professionals	6.0%
Process operatives	4.7%
Metal forming, welding and related trades	4.0%
Artistic, literary and media occupations	3.9%
Teaching and educational professionals	3.7%
Science, engineering and production technicians	3.7%
Health professionals	3.5%
Construction and building trades	3.4%
Administrative occupations: Finance	3.4%
Design occupations	3.3%
Sales, marketing and related associate professionals	3.2%
Administrative occupations: Records	3.2%
Information technology and telecommunications professionals	3.0%
Information technology technicians	2.9%

Source: UUEPC

The occupations which account for the largest proportion of the future NQF level 4-5 net requirement are skilled metal and electrical trades (15%), health professionals (11%) and administrative occupations (9%).

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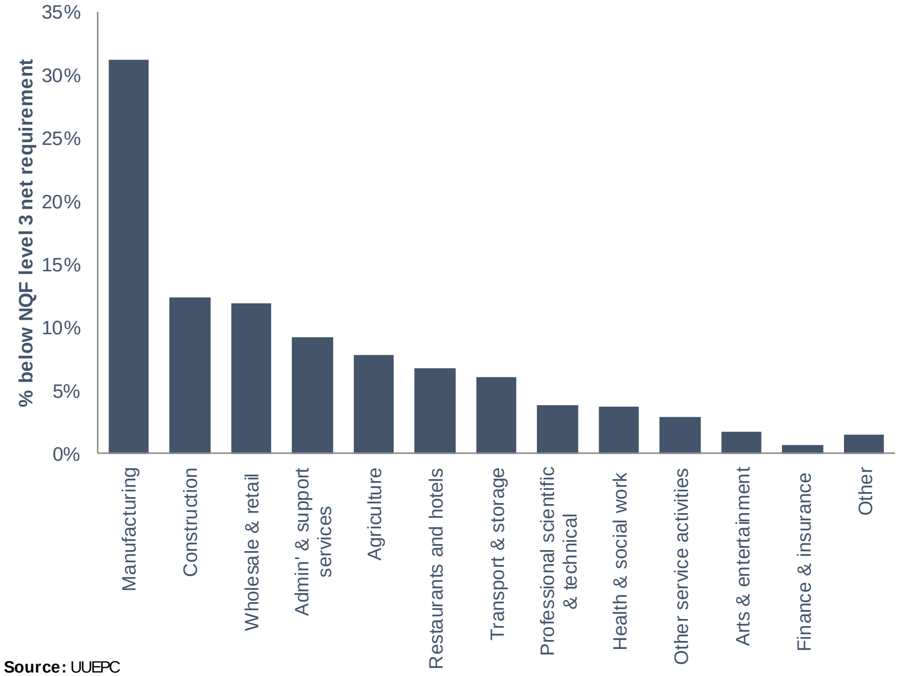
Wholesale and retail demands the highest proportion of below NQF level 3 qualifiers

Average annual net requirement for below NQF level 3 by sector, Growth Region (2017-2027)

Average annual net requirement for below NQF level 3 by sector (1-digit), Growth Region (2017-2027)



Source: UUEPC

Average annual net requirement below NQF level 3 by sector (top 15 2-digit), Growth Region (2017-2027)

2 digit SIC	% below NQF level 3 net requirement
Manufacture of food products	14.3%
Specialised construction activities	7.7%
Crop and animal production, hunting and related service activities	7.6%
Wholesale and retail trade and repair of motor vehicles and motorcycles	7.0%
Wholesale trade, except of motor vehicles and motorcycles	6.2%
Food and beverage service activities	4.9%
Civil engineering	4.9%
Land transport and transport via pipelines	4.4%
Office administrative, office support and other business support activities	4.3%
Manufacture of machinery and equipment n.e.c.	4.1%
Travel agency, tour operator and other reservation service and related activities	3.2%
Manufacture of motor vehicles, trailers and semi-trailers	3.1%
Residential care activities	2.7%
Manufacture of basic metals	2.6%
Manufacture of computer, electronic and optical products	2.2%

Source: UUEPC

The industry profile of the net requirement at below NQF level 3 varies significantly relative to tertiary level qualifications. Although the largest proportion of the net requirement is manufacturing (31%), this is followed by construction (12%) and wholesale and retail (12%). Due to graduate intensity within high growth sectors it is important that job opportunities are available across the skills spectrum.

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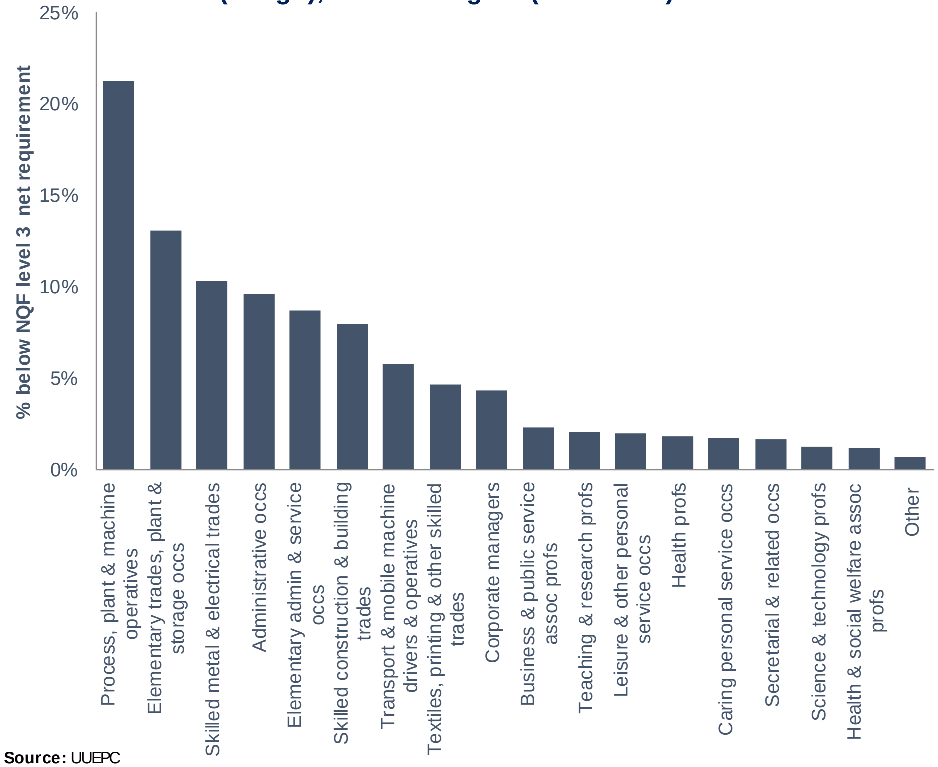
Process, plant and machine operatives account for the largest proportion of below NQF level 3 demand

Average annual net requirement for below NQF level 3 by occupation, Growth Region (2017-2027)

Average annual net requirement for below NQF level 3 by occupation (2-digit), Growth Region (2017-2027)



Source: UUEPC

Average annual net requirement for below NQF level 3 by occupation (top 15 3-digit), Growth Region (2017-2027)

3 digit SOC	% of below NQF level 3 net requirement
Process operatives	13.3%
Elementary process plant occupations	8.6%
Construction and building trades	6.5%
Other elementary services occupations	4.9%
Food preparation and hospitality trades	4.8%
Metal machining, fitting and instrument making trades	4.3%
Road transport drivers	4.2%
Assemblers and routine operatives	3.9%
Administrative occupations: Finance	3.4%
Administrative occupations: Records	3.2%
Elementary construction occupations	2.8%
Metal forming, welding and related trades	2.7%
Plant and machine operatives	2.7%
Elementary storage occupations	2.6%
Teaching and educational professionals	2.0%

Source: UUEPC

The occupation profile follows those which are most prevalent within the high demand sectors for low level qualifications. The occupations which account for the most below NQF level 3 net requirement are process plant and machine operatives (21%), elementary trades, plant and storage occupations (13%) and skilled metal and electrical trades (10%).

Summary of demand side qualifications

Net requirement by NQF - It is forecast that 27% of total demand will require at least a degree level qualification, which is below the NI average. However, it is expected only 12% of job opportunities will be available to individuals with a qualification level equivalent to below NQF level 2. Research at an NI level in 2009 highlighted this figure was as high as 22% and has since continued to fall. As qualifications hungry employers squeeze out lower qualified workers, it is expected this trend will continue.

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 NI.

Workforce qualifications current versus future - Current workforce qualifications do not match expected future qualifications. For example, in the Growth Region 19% of people employed have NQF level 6+ qualifications compared to 27% forecast for the coming decade.

At mid-level (NQF level 3 and 4-5) qualifications are closely aligned between current and future qualification demands. There is a large gap between the employed with below NQF level 2 (28%) and the future net requirement (12%).

However, current workforce qualifications are skewed by a high proportion of older workers who hold less formal qualifications (relative to younger workers) but are not necessarily low skilled, and drag down the qualification profile of the workforce.

Net requirement by NQF level 6+ by sector - The graduate intensity within the net requirement differs relatively across sectors. Over half (53%) of net requirement for the professional services sector require NQF level 6+ qualifications compared to only 35% in health and social. Although there is a large difference in proportionate requirement, the size difference in sectors impacts the number of required graduates. For example, professional services is forecast to require 230 graduates per annum over the next decade compared to 200 in health and social work.

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Summary of demand side qualifications (continued)

Net requirement by NQF level 6+ by occupation - The occupation profile of the net requirement at graduate level is shaped by the sectoral structure. The occupations which account for the highest proportion of NQF level 6+ net requirement are science and technology professionals (18%) and business and public service professionals (15%).

Net requirement by NQF level 4-5 by sector - The industry mix for NQF level 4-5 is similar to NQF level 6+. The sectors accounting for the largest proportion of NQF level 4-5 net requirement are health and social work (22%) and manufacturing (21%).

Net requirement by NQF level 4-5 by occupation - In the same vein the sectoral structure determines the occupations demanded. The occupation accounting for the largest proportion of net requirement is skilled metal and electrical trades (15%) followed by health professionals (11%).

Net requirement by below NQF level 3 by sector - The sectoral mix of net requirement at below NQF level 3 differs from tertiary level qualifications. The largest proportion of net requirement is within manufacturing (31%) followed by construction (12%).

Due to graduate intensity many of the high growth sectors provide very few opportunities for individuals with non-tertiary level qualifications. Therefore the sectors requiring low qualified individuals play a vital role in the local economy, specifically if it is to achieve inclusive growth.

Net requirement by below NQF level 3 by occupation - The occupations which account for the highest proportion of below NQF level 3 net requirement are process plant and machine operatives (21%) and elementary trades, plant and storage occupations (13%).

Demand side – Subjects

Interpreting outputs relating to subject demand

UUEPC's skills model estimates the subjects demand across occupations. The outputs should be interpreted as a rough proxy as at a sub-regional level the demand for skills can be significantly altered by a new large employer (e.g. large FDI firm) or a large employer closing or moving to another area.

In addition, estimates of future skills demands are based on historic patterns. Therefore it is possible demand in some sectors has the potential to evolve over time changing the required subject mix within sectors (e.g. growth in artificial intelligence or cyber-security).

This section will outline subject demand for:

- NQF level 6+ (undergraduate, masters and PhD); and
- NQF level 4-5 (sub-degree level qualifications).

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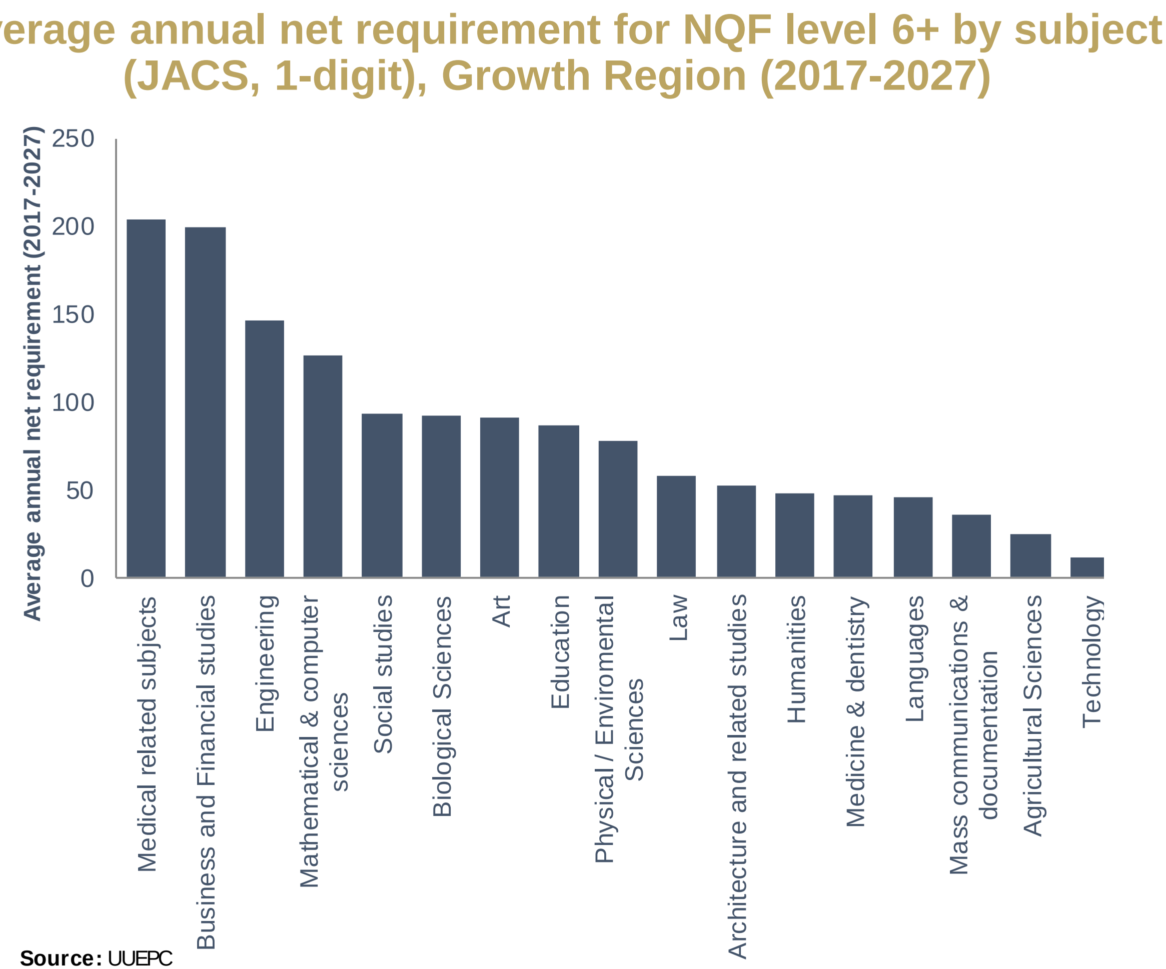
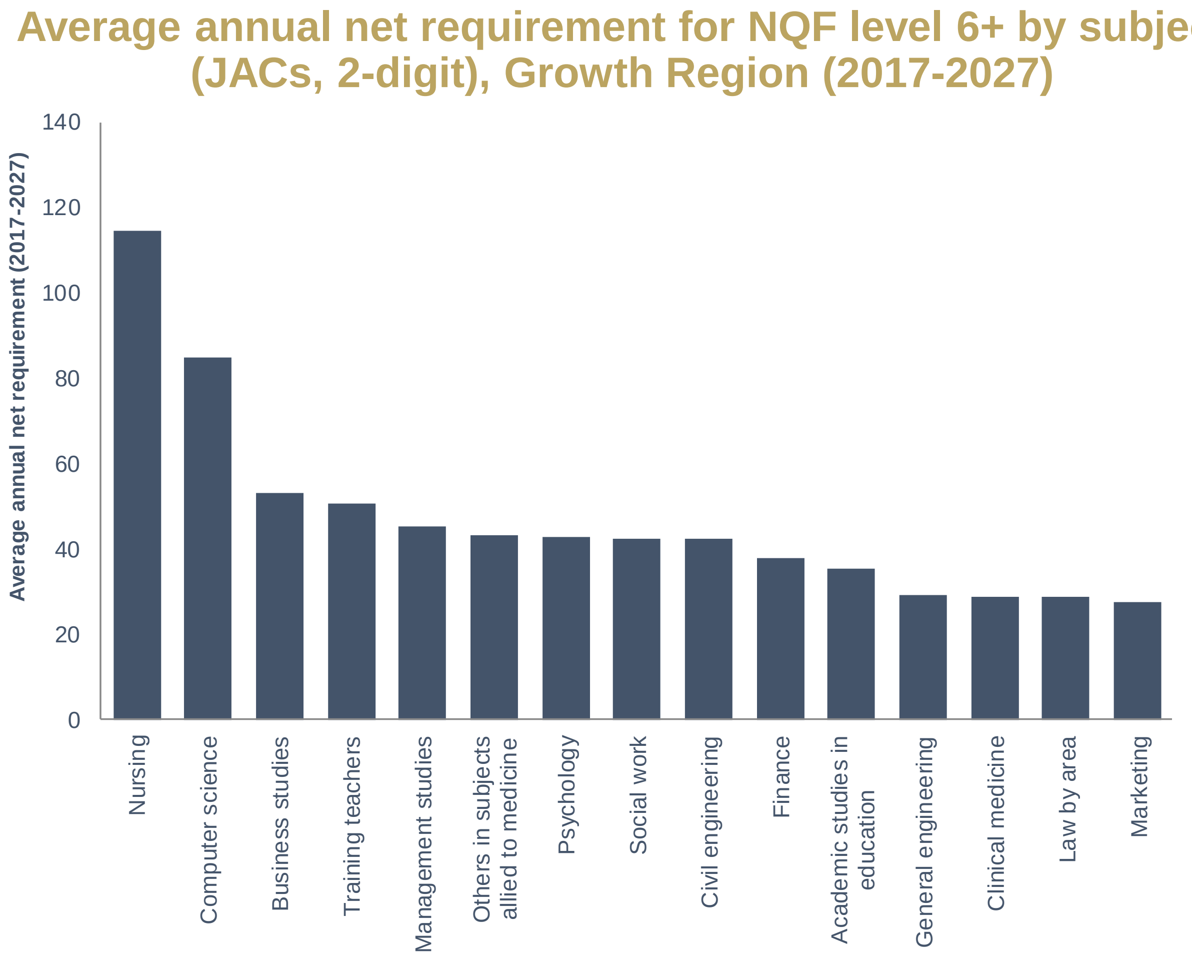
Medical related subjects account for highest proportion of graduate demand



Source: UUEPC

Medical related subjects account for the largest proportion of the NQF level 6+ net requirement (14%). This is followed by business and financial studies (14%) and engineering (10%).

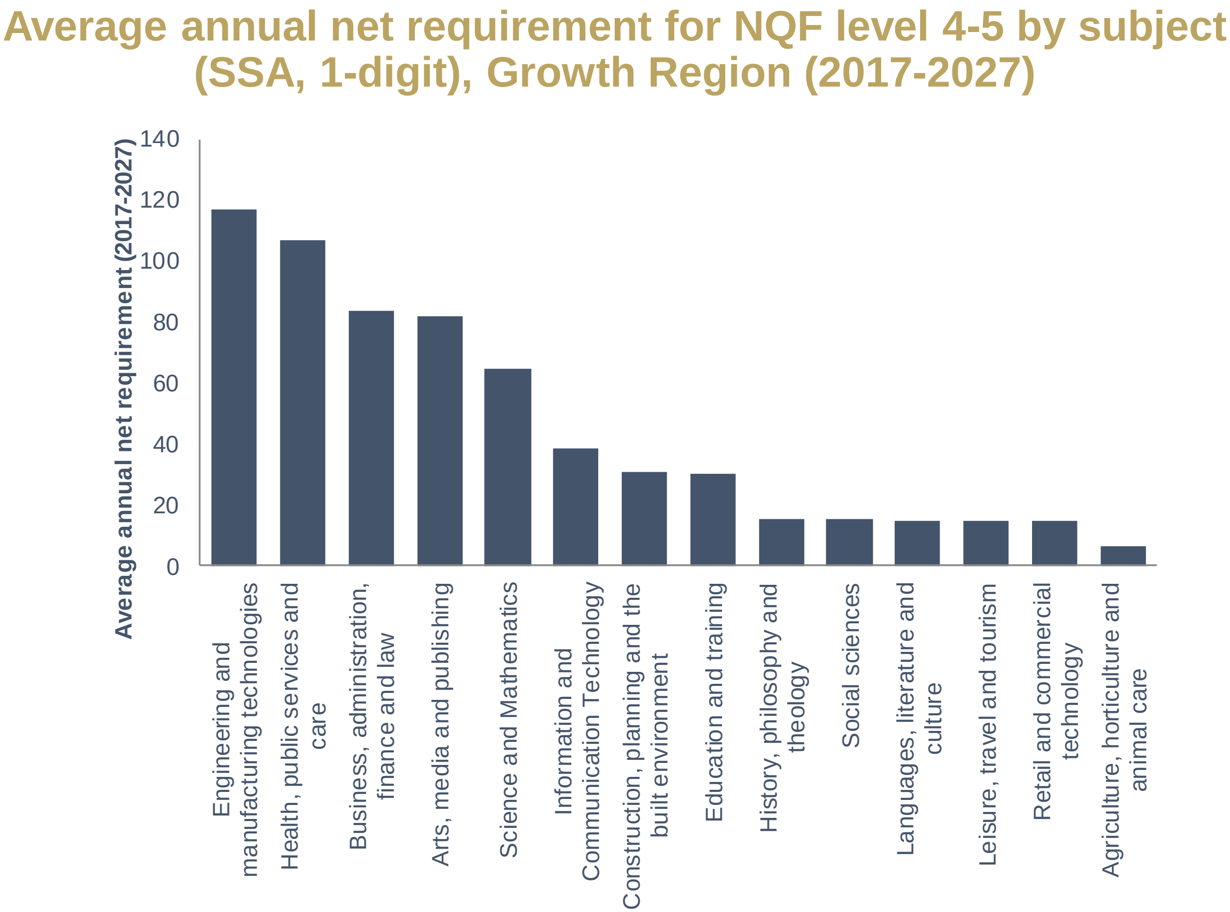
At a more detailed level nursing accounts for the highest proportion of graduate demand



Source: UUEPC

A more detailed analysis highlights that nursing accounts for the highest NQF level 6+ annual net requirement of (120), followed by computer science (90), business studies (50) and training teachers (50).

Engineering and manufacturing technologies account for the largest sub-degree subject demand



Source: UUEPC

At a sub-degree level the largest proportion of the net requirement is in engineering, manufacturing and technologies (18%), followed by health, public services and care (17%) and business administration, finance and law (13%).

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Summary of demand side subjects

Interpreting subject demand - Subject outputs should be interpreted as a rough guide as at a sub-regional level many factors can have a significant influence on net requirement. For example, a new large employer, the closure of a large employer or move of a large employer elsewhere.

The largest subject demand is in medical related subjects, driven by large replacement demand within the health and social work sector. A strong expansion demand in professional services also drives a relatively high net requirement for subjects such as business studies and finance and mathematical and computer science.

Net requirement by NQF level 6+ subjects - The subject which accounts for the largest proportion of NQF level 6+ demand is medical related subjects (14%). This is followed by business and financial studies (14%) and engineering (10%).

Granular level analysis can provide detailed insight. For example, nursing accounts for the largest proportion of NQF level 6+ net requirement. The next largest subjects in demand at a detailed level are computer science and business studies.

Net requirement by NQF level 4-5 subjects - The largest subject in demand at a sub-degree level is engineering and manufacturing technologies (18% of the NQF level 4-5 net requirement). The next largest sub-degree subjects in demand are health, public services and care (17% of the NQF level 4-5 net requirement), followed by business, administration, finance and law (13%).

Supply side – School leavers achievement

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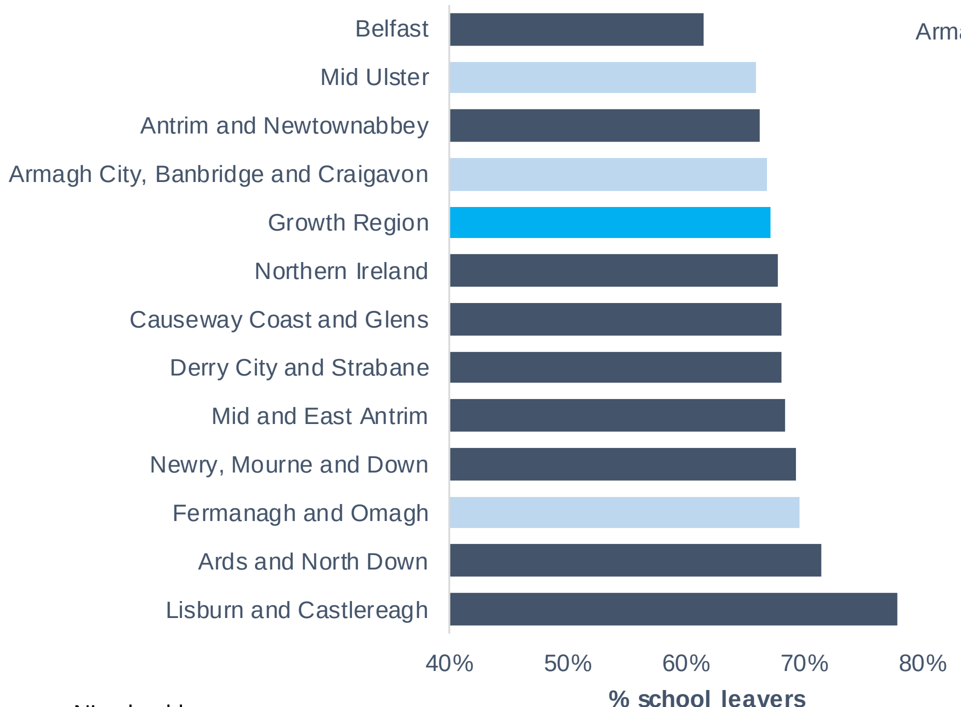
School leavers perform marginally below NI average at GCSE level in the Growth Region

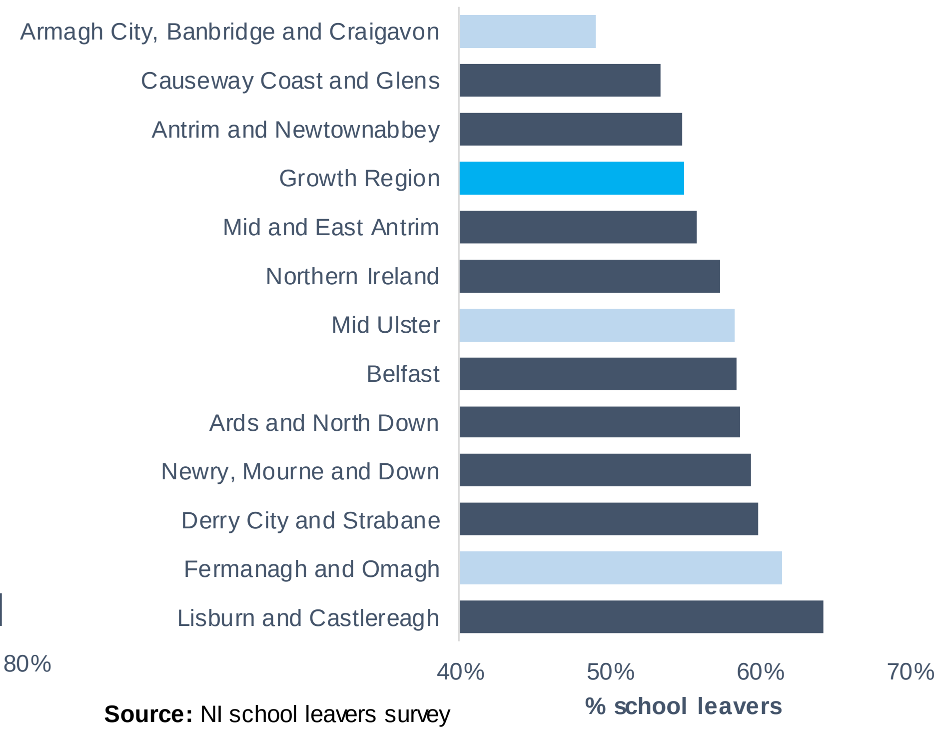
GCSE and A-level attainment of school leavers, LGDs (2015/16)

Proportion (%) of school leavers achieving 5+ GCSEs A*-C including English and maths, LGDs (2015/16)



Source: NI school leavers survey

Proportion (%) of school leavers achieving 2+ A-levels A*-E, LGDs (2015/16)



Source: NI school leavers survey

There is a difference in the A-level and GCSE performance of the LGD's which constitute the Growth Region. For example, in Fermanagh and Omagh 62% of school leavers achieve 2+ A-levels A*-E compared to 49% in Armagh, Banbridge and Craigavon (lowest rate across LGDs). Likewise, 66% of school leavers achieve 5+ GCSEs A*-C including English and maths in Mid Ulster, compared to 70% in Fermanagh and Omagh.

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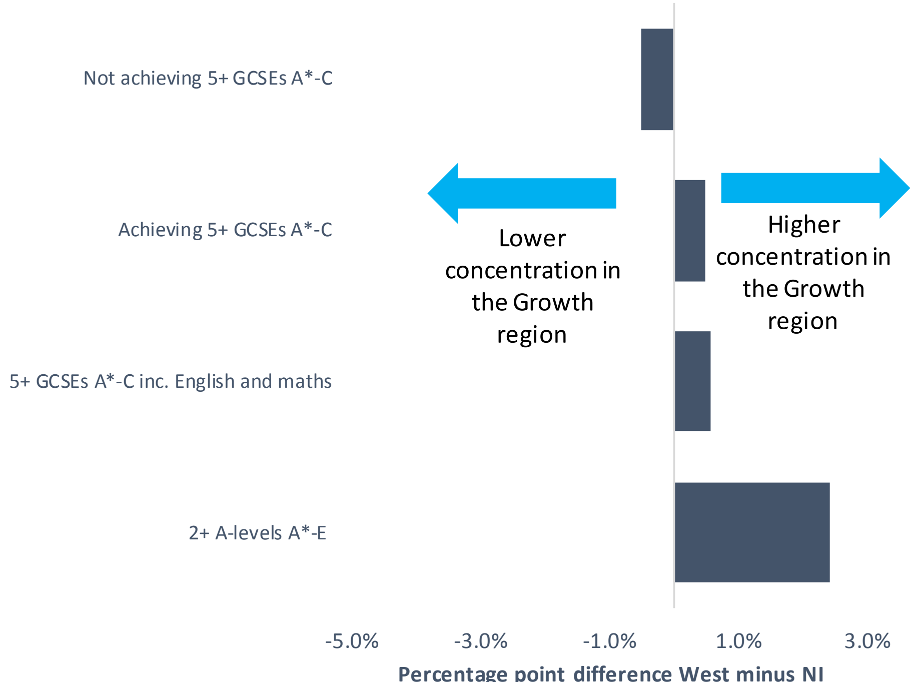
Relatively weak improvement in the proportion school leavers achieving 5+ GCSEs A*-C inc. English and maths

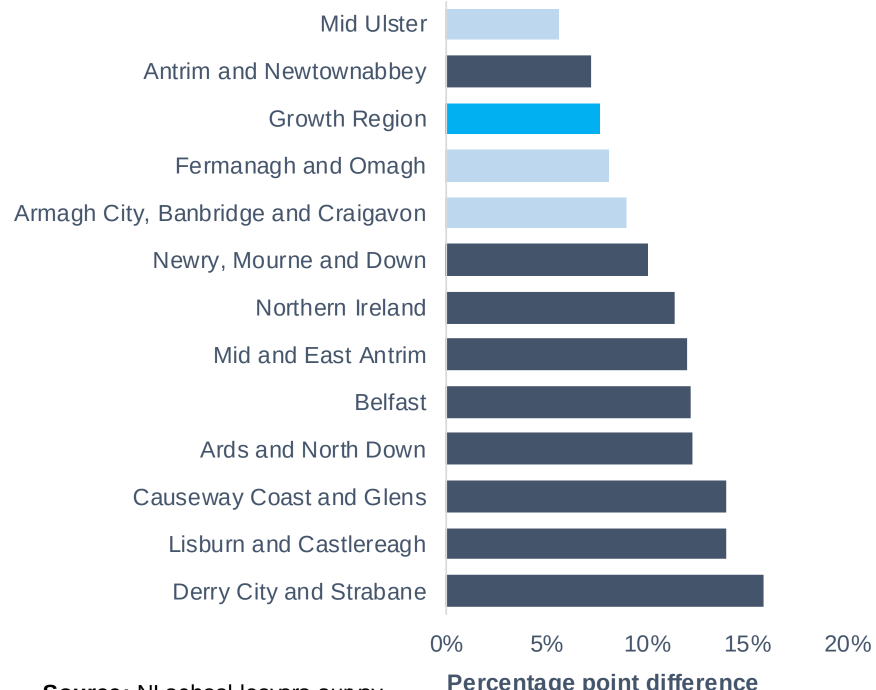
Skill structure of school leavers (2015/16) and change in performance (2007/08-2015/16)

Percentage point difference in qualifications of school leavers, Growth Region versus NI (2015/16)



Source: NI school leavers survey

Percentage point difference in school leavers achieving 5+ GCSEs A*-C including English and maths, LGDs (2007/08-2015/16)

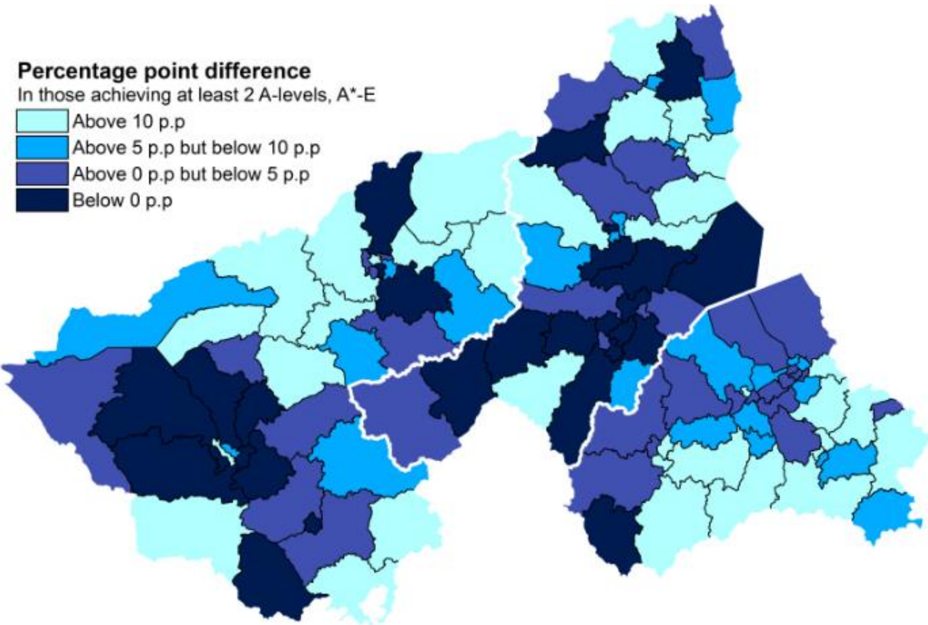


Source: NI school leavers survey

The rate of school leavers achieving 5+ GCSEs A*-C including English and maths in the Growth Region has improved by eight percentage points over the 8 year period 2007/08-2015/16, below the NI average improvement of eleven percentage points.

Are there lessons to be learned from schools in improving areas?

Percentage point difference in proportion (%) of school leavers achieving 2+ A-levels A*-E, Growth Region (2007-2010 versus 2013-2016)



Source: NI School Leavers Survey

Most Improved Wards in the Growth Region

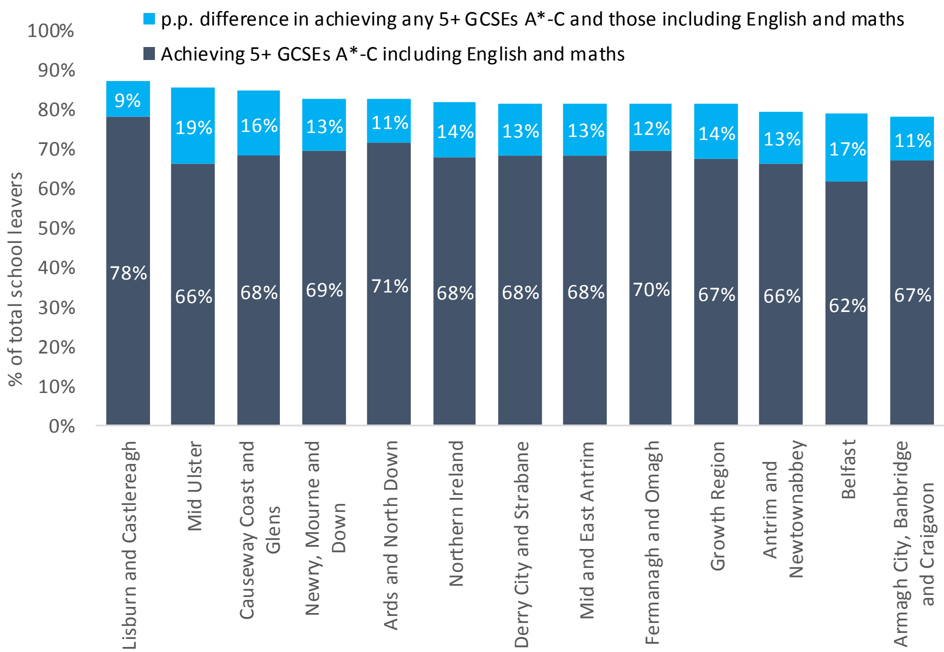
	Ward	LGD	p.p. change
1	Newtownbutler	Fermanagh and Omagh	29%
2	Drumquin	Fermanagh and Omagh	27%
3	Dromore	Fermanagh and Omagh	23%
4	The Mall	Armagh City, Banbridge and Craigavon	19%
5	Trillick	Fermanagh and Omagh	18%
6	Coagh	Mid Ulster	16%
7	Drumnakilly	Fermanagh and Omagh	16%
8	Markethill	Armagh City, Banbridge and Craigavon	16%
9	Loughbrickland	Armagh City, Banbridge and Craigavon	15%
10	Strule	Fermanagh and Omagh	15%
11	Fairy Water	Fermanagh and Omagh	14%
12	Banbridge North	Armagh City, Banbridge and Craigavon	14%
13	Florence Court and Kinawley	Fermanagh and Omagh	14%
14	Donaghcloney	Armagh City, Banbridge and Craigavon	14%
15	Ballymaguigan	Mid Ulster	14%
16	The Loup	Mid Ulster	13%
17	Termon	Fermanagh and Omagh	13%
18	Tobermore	Mid Ulster	13%
19	Magheralin	Armagh City, Banbridge and Craigavon	13%
20	Corcrain	Armagh City, Banbridge and Craigavon	13%

To improve school achievement it is important to look at good practice in order to understand what works in which contexts. Analysis of school leaver achievements in the Growth Region at a granular level highlights a 29 percentage point improvement in Newtownbutler and a 27 percentage point improvement in Drumquin over the period 2007/08-2015/16. These are the 1st and 2nd most improved wards across all 462 wards.

14% of NQF level 2 school leavers are not achieving a pass grade in core subjects English and maths

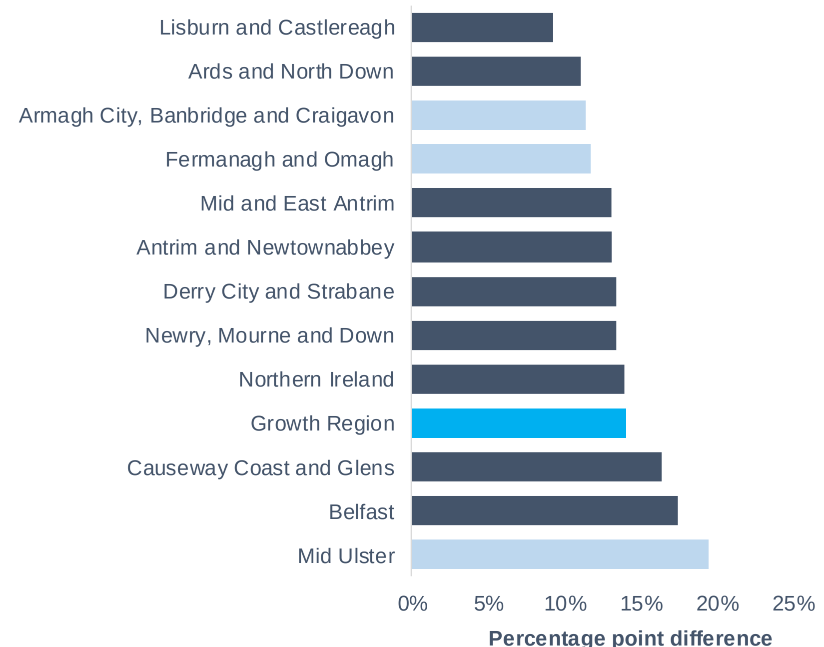
School leavers achieving any 5 GCSEs A*-C and those that include English and maths, LGDs (2015/16)

Proportion (%) of school leavers achieving 5+ GCSEs and those including and excluding English and maths, LGDs (2015/16)



Source: NI school leavers survey

P.p. difference in rate of school leavers achieving 5+ GCSEs A*-C, including English and maths versus not including English and maths, LGDs 2015/16



Source: NI school leavers survey

At least a pass grade in English and maths at GCSE is often a prerequisite for jobs and a precondition for education and training courses. A high difference between the proportion of school leavers achieving this and those not represents potential barriers to labour force participation. In the Growth Region of the 4,700 school leavers that qualified with at least 5+ GCSE's A*-C 1,900 did not achieve a pass grade in English and maths.

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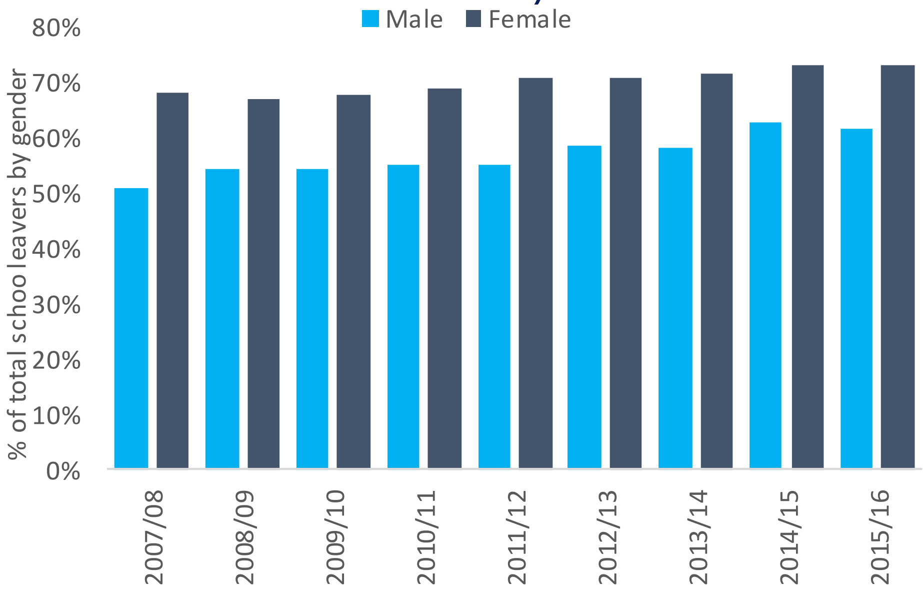
Females consistently outperform males school attainment across the Growth Region

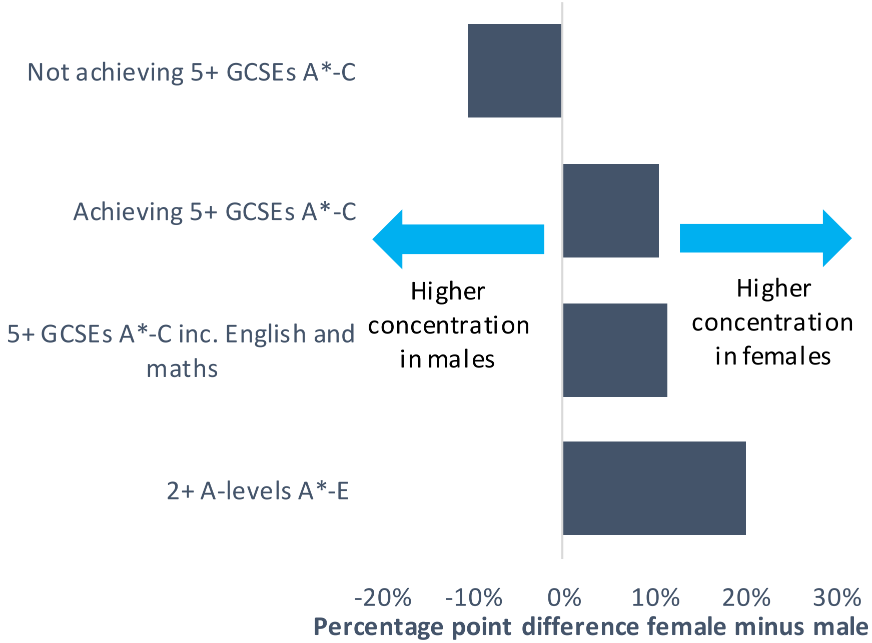
School leavers achieving 5+ GCSEs A*-C including English and maths, male versus female, Growth Region (2015/16)

Proportion (%) of school leavers achieving 5+ GCSEs A*-C including English and maths, male versus female, Growth Region (2007/08-2015/16)



Source: NI school leavers survey

Percentage point difference in school leavers qualification level, male versus female, Growth Region (2015/16)



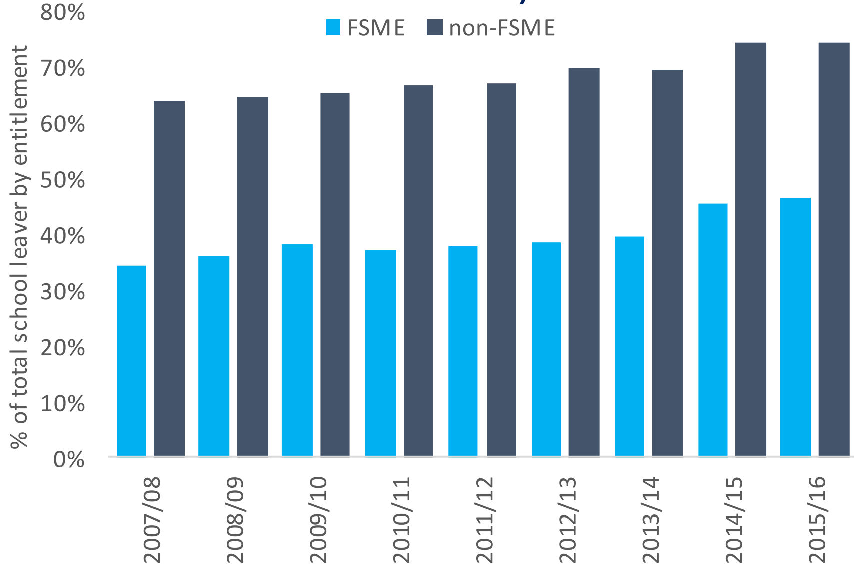
Source: NI school leavers survey

Gender analysis highlights female school leavers in the Growth Region tend to outperform male school leavers across both GCSE and A-level attainment. For example, the difference in the rate of female and male school leavers achieving 2+ A-levels A*-E is 20 percentage points. This compares to a difference of 17 percentage points across NI as a whole.

FSME achievement is improving, but the gap is narrowing slowly

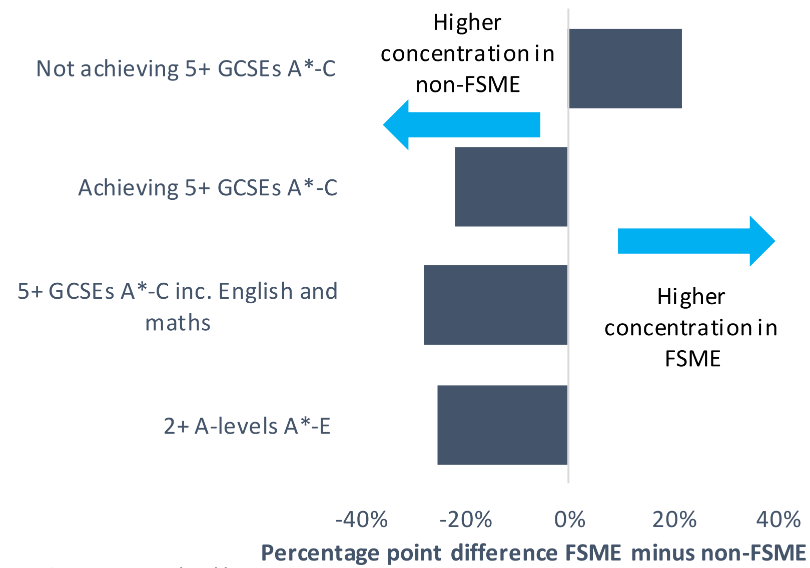
School leavers achieving 5+ GCSEs A*-C including English and maths, FSME versus non-FSME, Growth Region (2015/16)

Proportion (%) of school leavers achieving 5+ GCSEs A*-C including English and maths, FSME versus non-FSME, Growth Region (2007/08-2015/16)



Source: NI school leavers survey

Percentage point difference in school leavers qualification level, FSME vs non-FSME, Growth Region (2015/16)



Source: NI school leavers survey

School leaver qualification profile (NQF) by gender and FSME, Growth Region (2015/16)

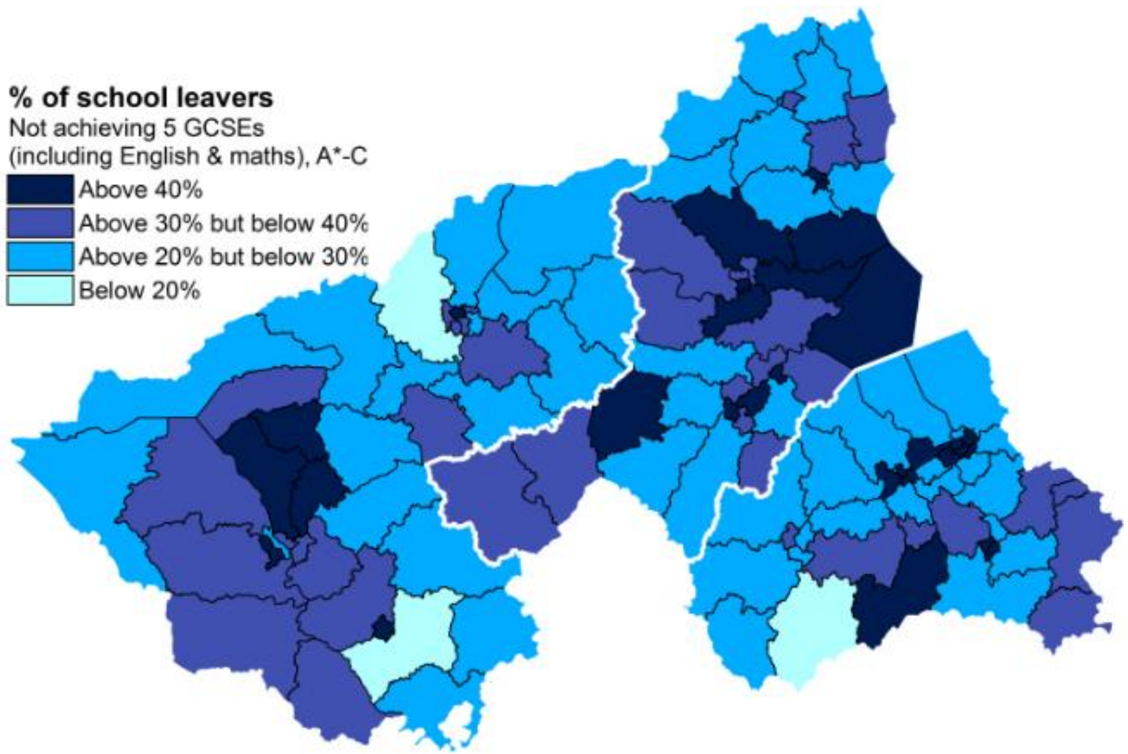
Qualification level	Male			Female		
	FSME	non-FSME	Percentage point difference	FSME	non-FSME	Percentage point difference
2+ A-levels A*-E	27%	51%	-24%	46%	72%	-26%
5+ GCSEs A*-C inc. English and maths	41%	69%	-27%	52%	80%	-28%
Any 5+ GCSEs A*-C	57%	83%	-26%	73%	91%	-18%
Not achieving 5+ GCSEs A*-C	43%	17%	26%	27%	9%	18%

Source: NI school leavers survey

Note: Percentage point difference refers to FSME minus non-FSME

A high rate of school leavers do not achieve the minimum standard required by employers in some areas within the Growth Region

Proportion (%) of school leavers not achieving 5 GCSEs (A*-C) including English and maths, Growth Region wards (2013/14 – 2015/16)



Source: NISRA, NI School Leavers Survey

Lowest achievers in Growth Region

	Ward	LGD	%
1	Ballybay	Armagh City, Banbridge	63%
2	Brownlow	Armagh City, Banbridge	57%
3	Mourneview	Armagh City, Banbridge	57%
4	Ballysaggart	Mid Ulster	53%
5	Shankill	Armagh City, Banbridge	52%
6	Loughry	Mid Ulster	49%
7	Ardboe	Mid Ulster	49%
8	Strule	Fermanagh and Omagh	46%
9	Coagh	Mid Ulster	46%
10	Town Parks East	Mid Ulster	46%

Highest achievers in Growth Region

	Ward	LGD	%
1	Donagh	Fermanagh and Omagh	12%
2	Fairy Water	Fermanagh and Omagh	15%
3	Seagahan	Armagh City, Banbridge	17%
4	Newtownsaville	Fermanagh and Omagh	20%
5	Swatragh	Mid Ulster	21%
6	Lower Glenshane	Mid Ulster	21%
7	Dromore	Fermanagh and Omagh	21%
8	Camowen	Fermanagh and Omagh	21%
9	Brookeborough	Fermanagh and Omagh	21%
10	Owenkillew	Fermanagh and Omagh	22%

The ward with the poorest school attainment in the Growth Region is Ballybay (Armagh, Banbridge and Craigavon) where 63% of school leavers fail to achieve 5+ GCSEs A*-C including English and maths. This is ranked 450th out of 462 wards in NI. On the other hand in Donagh (Fermanagh and Omagh) only 12% of school leavers fail to achieve 5+ GCSEs A*-C including English and maths, which is ranked 10th out of 462 wards.

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The Growth Region accounts for a lower number of low achieving areas

School leavers not achieving 5 GCSEs A*-C including English and maths, Wards (2015/16)

	% of total wards	% of wards in lowest performing quartile	% of wards in lowest performing decile
Antrim and Newtownabbey	9%	12%	15%
Armagh City, Banbridge and Craigavon	9%	8%	9%
Belfast	13%	24%	39%
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%
Mid and East Antrim	9%	7%	11%
Mid Ulster	9%	9%	2%
Newry, Mourne and Down	9%	6%	2%
Ards and North Down	9%	8%	7%
Northern Ireland	100%	100%	100%
Growth Region	26%	20%	11%

Source: NI school leavers survey

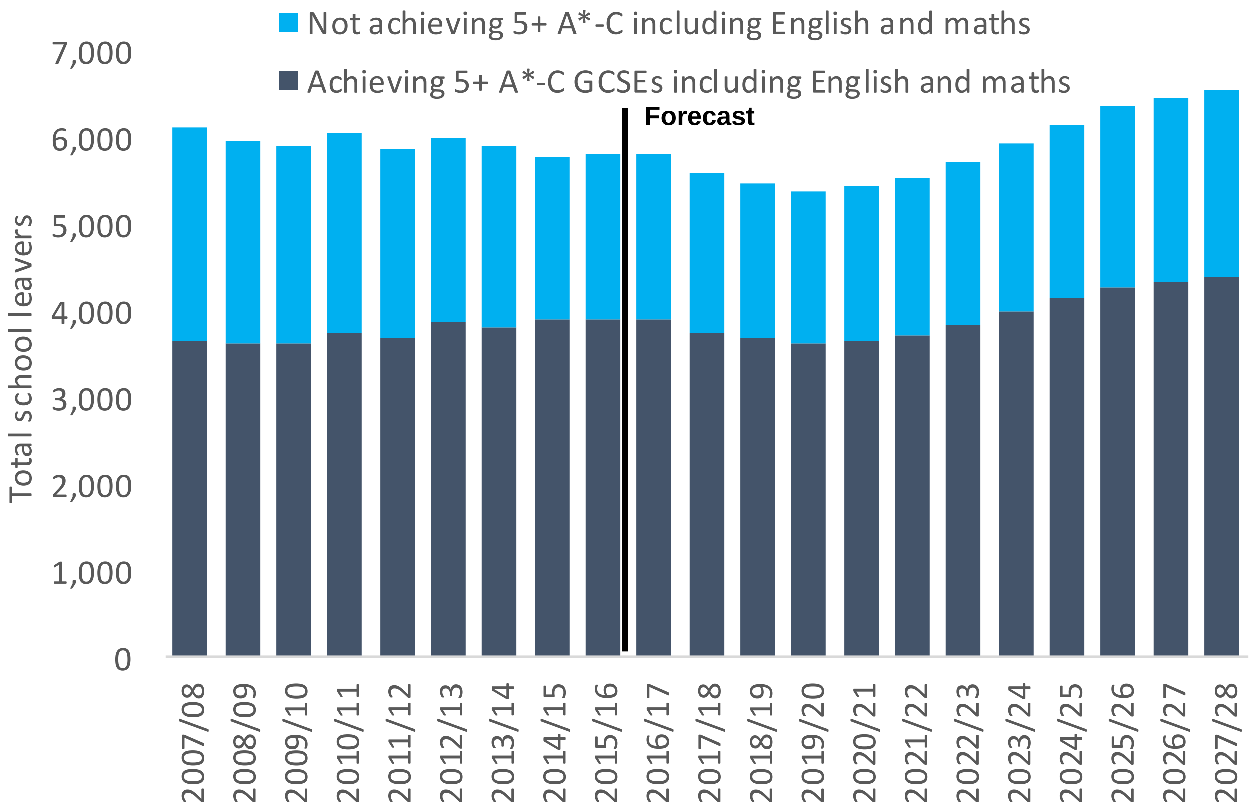
An analysis of school performance using small geographical areas highlights if an area has a proportionate or disproportionate share of pupils underachieving.

The Growth Region accounts for 26% of total wards and only 20% of those in the lowest performing quartile in relation to school leavers achieving 5+ GCSE's A*-C including English and maths.

This is influenced by Fermanagh and Omagh accounting for 9% of total NI wards but only 3% of wards within the lowest performing quartile and 0% of wards in the lowest performing decile.

Potentially 21.3k pupils to leave school by 2027 without achieving 5 GCSE's A*-C inc English and maths

School leavers achieving 5+ GCSEs A*-C including English and maths and those not, Growth Region (2007/08-2027/28)



Source: UUEPC, NI school leavers survey

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Summary of school leavers attainment

2+ A-levels A*-E - The proportion of school leavers achieving 2+ A-levels A*-E in the Growth Region performs below the NI average, 55% and 57% respectively.

It is important to note the performance of the three LGDs which constitute the Growth Region, which range from 49% of school leavers in Armagh, Banbridge and Craigavon (lowest rate across LGD's) achieving 2+ A-levels A*-E to 62% of Fermanagh and Omagh – a 13 percentage point difference.

5+ GCSEs A*-C - The rate of school leavers in the Growth Region achieving 5+ GCSEs A*-C including English and maths performs marginally below the NI average, 67% in the Growth Region compared to 68% in NI.

The rate of school leavers achieving 5+ GCSEs A*-C including English and maths has increased by eight percentage points over the period 2007/08-2015/16. This improvement is relatively lower than the NI average.

GCSE's and employability - The difference between the proportion of school leavers achieving 5+ GCSEs A*-C including English and maths and those not including English and maths is important from an employability context. At least a pass grade in the two 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 the area could indicate a barrier to labour force participation.

In the Growth Region of the 4,700 school leavers that qualified with at least 5+ GCSE's A*-C 1,900 did not achieve a pass grade in English and maths.

Summary of school leavers attainment (continued)

Male versus female - There are also gender differences in the attainment of school leavers wherein females out perform males. For example, a higher proportion of females achieved 2+ A-levels A*-E, 5+ GCSEs A*-C including English and maths and any 5+ GCSEs A*-C, relative to males. Whereas males are more likely to not achieve 5+ GCSEs A*-C.

FSME - Broadly speaking pupils receiving FSME have a significantly lower level of school attainment relative to their peers not in receipt of FSME. For example, 47% of FSME school leavers achieve 5+ GCSEs A*-C including English and maths compared to 74% of those who are not in receipt of FSME.

Whilst the attainment of pupils receiving FSME has improved over time, so too has those not in receipt of FSME meaning the gap has remained largely unchanged. This suggests a lower rate of enrolment in tertiary level education courses is likely amongst children who are socioeconomically deprived, relative to their more affluent peers.

Future attainment - Assuming current school participation and performance rates it is estimated that 21,300 children resident in the Growth Region over the period 2017-2027 will leave the school system without achieving the minimum standard education expected by most employers i.e. 5+ GCSEs A*-C including English and maths.

A high proportion of low achievers puts pressure on other parts of the education system. For example, high enrolment in low NQF level courses at FE which are publically funded, as well as participation in Government training courses Essential Skills and Training for Success (TfS).

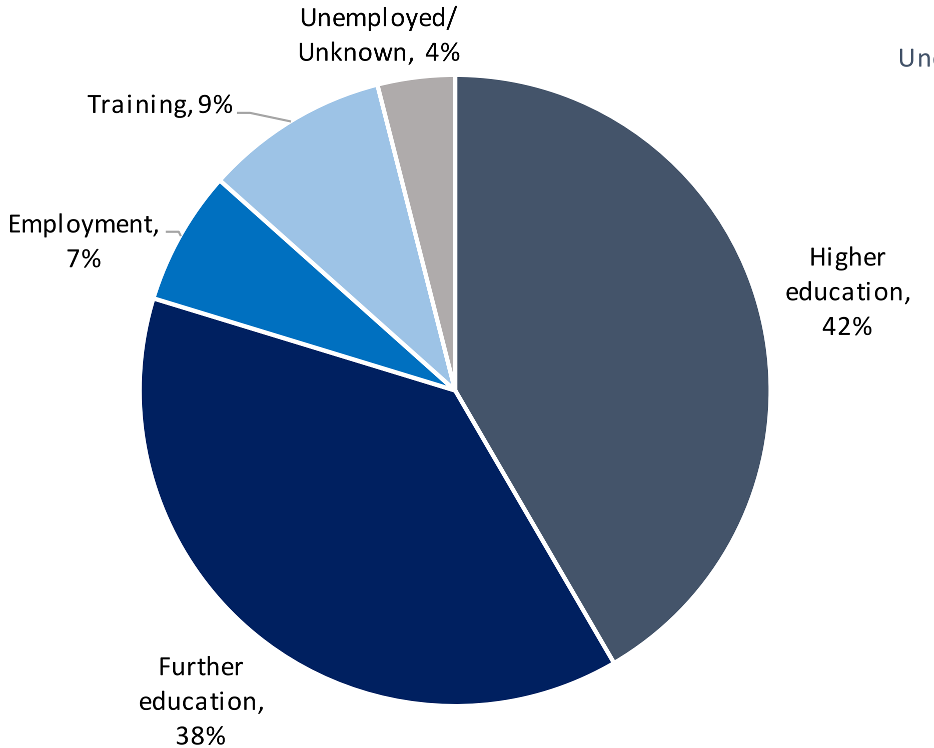
Supply side – Destination of school leavers

Ulster University

Higher Education is the most common destination for school leavers in the Growth Region

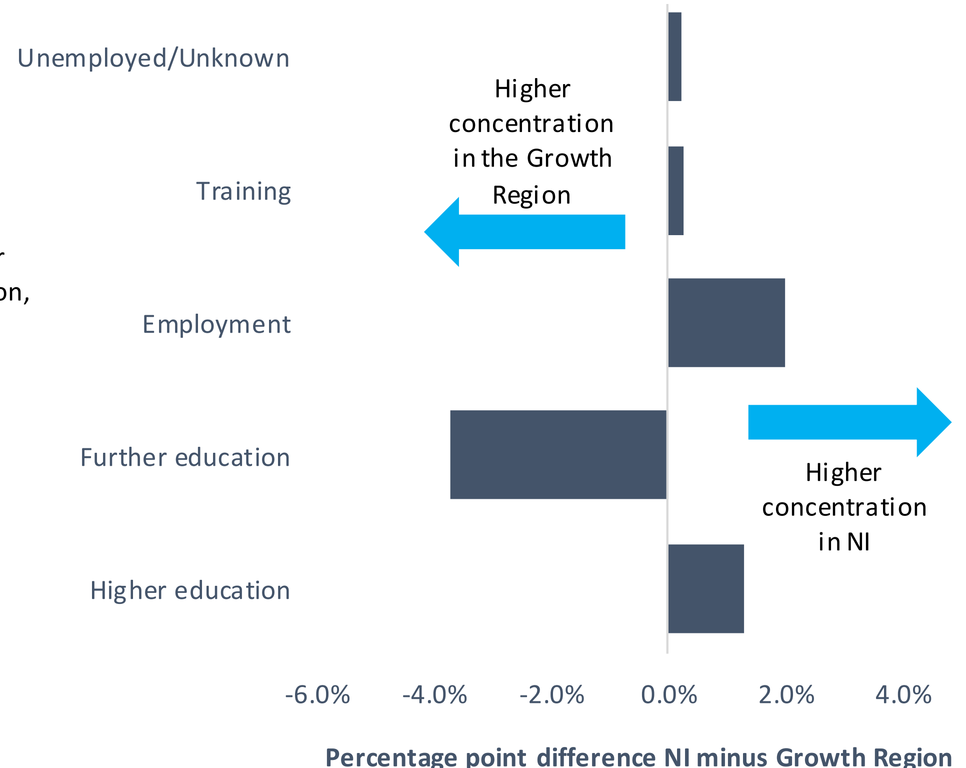
Destination of school leavers, Growth Region versus NI (2015/16)

Destination of school leavers, Growth Region (2015/16)



Source: NI school leavers survey

Percentage point difference in destination of school leavers, Growth Region versus NI (2015/16)

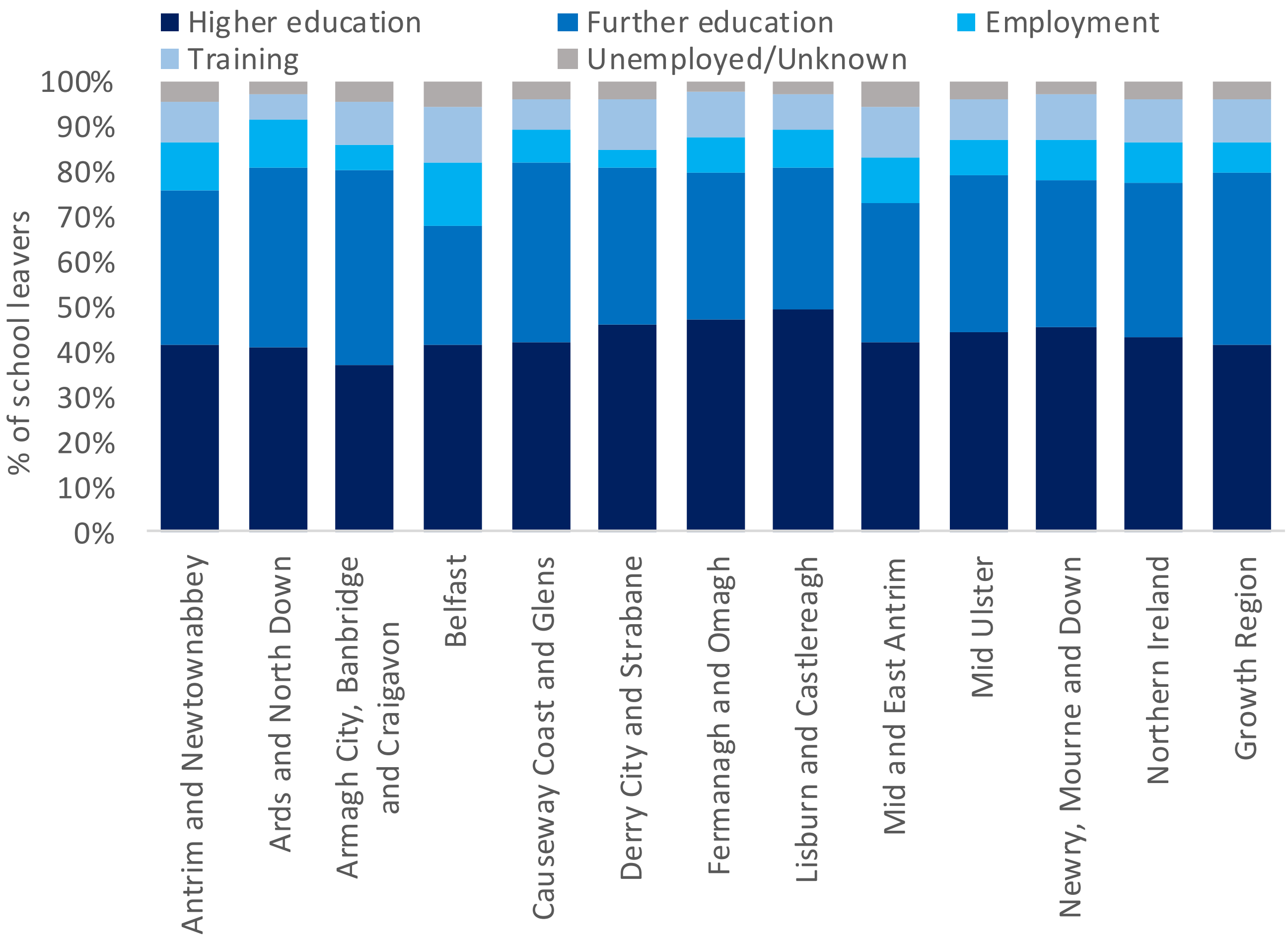


Source: NI school leavers survey

Amongst the Growth Region's school leavers lower proportions enter Higher Education (HE), employment and training, relative to the NI average. Whereas, a higher proportion enter Further Education (FE) compared to NI as a whole.

In the Growth Region 42% of school leavers enter HE and 38% enter FE

Destination of school leavers, LGDs (2015/16)



Source: NI school leavers survey

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Summary of destination of school leavers

Higher Education - The most common destination of school leavers is HE, accounting for 42% of total (marginally above the NI average). This is influenced by the school attainment across the region.

For example, almost half (47%) of school leavers in Fermanagh and Omagh move into HE which is the second highest rate amongst LGD's. This LGD also constitutes the second highest proportion of school leavers achieving 2+ A-levels A*-E (62%). On the other hand 37% of Armagh Banbridge and Craigavon school leavers move onto HE, in line with having the lowest proportion of pupils achieving 2+ A-levels A*-E across LGD's (49%).

Further Education (FE) - The second most common destination of school leavers is FE, accounting for 38% of the Growth Region's school leavers, above the NI average (34%). The levels across the LGD's which comprise the Growth Region range from 35% in Mid Ulster, 33% in Fermanagh and Omagh and 43% in Armagh, Banbridge and Craigavon.

Employment - The proportion of school leavers moving into employment in the Growth Region (7%) is marginally below the NI average (9%).

Training/unemployed/unknown - A combination of training, unemployed and unknown as destinations of leavers accounts for 13% of the Growth Region's leavers compared to 14% for NI average. This ranges from 14% of school leavers in Armagh, Banbridge and Craigavon to 12% in Fermanagh and Omagh.

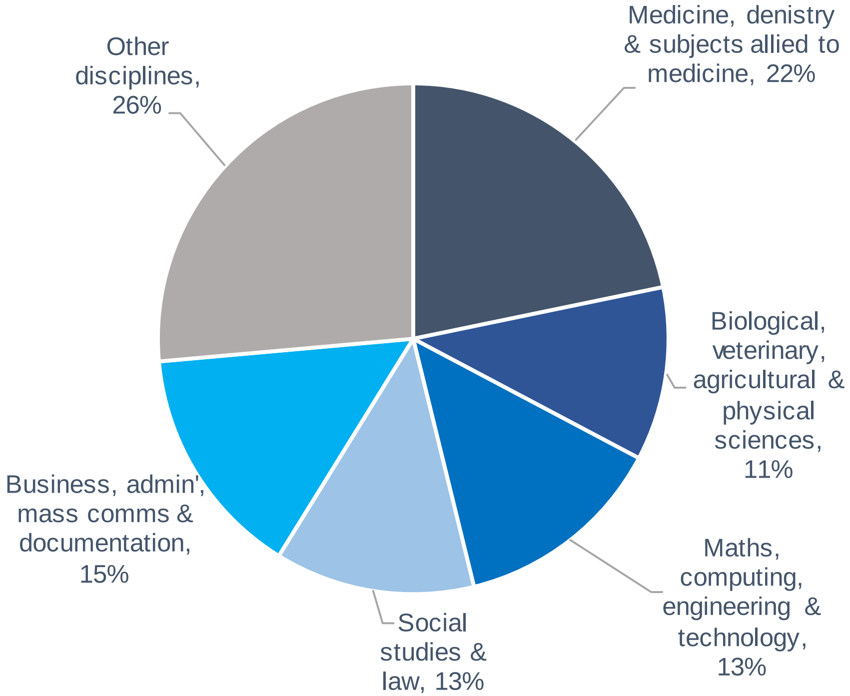
Supply side – Post secondary education

Ulster University

Higher concentration of STEM subjects studied relative to NI

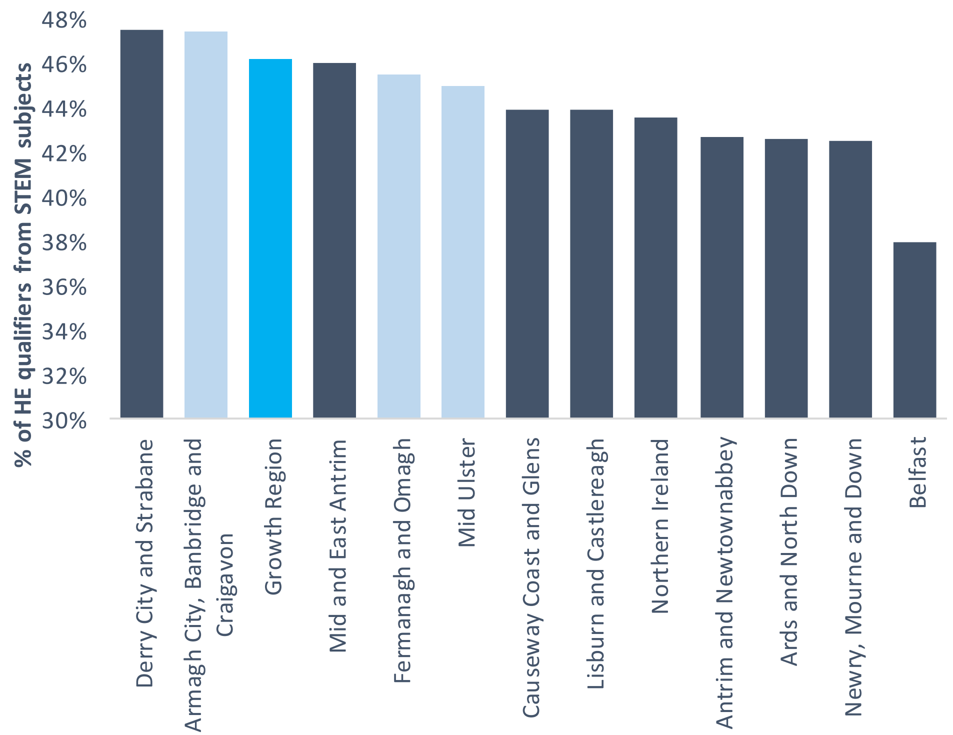
Subject studied at Higher Education, Growth Region versus NI (2015/16)

Subject studied at Higher Education, Growth Region (2015/16)



Source: NINIS

HE qualifiers from STEM related subjects, LGDs (2015)



Source: NINIS

In the Growth Region 46% of students qualify from a broad STEM related subjects, marginally above the NI average (44%). The figure is driven by the rate in Armagh, Banbridge and Craigavon where 47% of HE leavers qualify from broad STEM related subjects.

Despite relatively higher rates of STEM qualifiers, an undersupply still exists in STEM subject areas

Current versus future subject profile of NQF level 6+, Growth Region (2015, 2017-2027)*

	% distribution of qualifiers (2015)	% distribution of net requirement (2017 - 2027)	p.p. difference
Medicine, denistry, subjects allied to medicine	22%	17%	4%
Biological, veterinary, agricultural & physical sciences	11%	14%	-3%
Maths, computing, engineering and technology	13%	20%	-6%
Social studies & law	13%	10%	2%
Business, administration, mass communication and documentation	15%	16%	-2%
All other disciplines	26%	23%	4%

Source: NINIS

Considering the current subject profile of graduates against forecast net requirement identifies some imbalances. For example, currently 13% of graduates qualify from maths, computing, engineering and technology subjects. However, the net requirement of NQF level 6+ qualifications is forecast to demand 20% of graduates from subjects of maths, computing, engineering an technology.

*It should be noted, the subject groupings at LGD level are too broad to draw any firm conclusions from.

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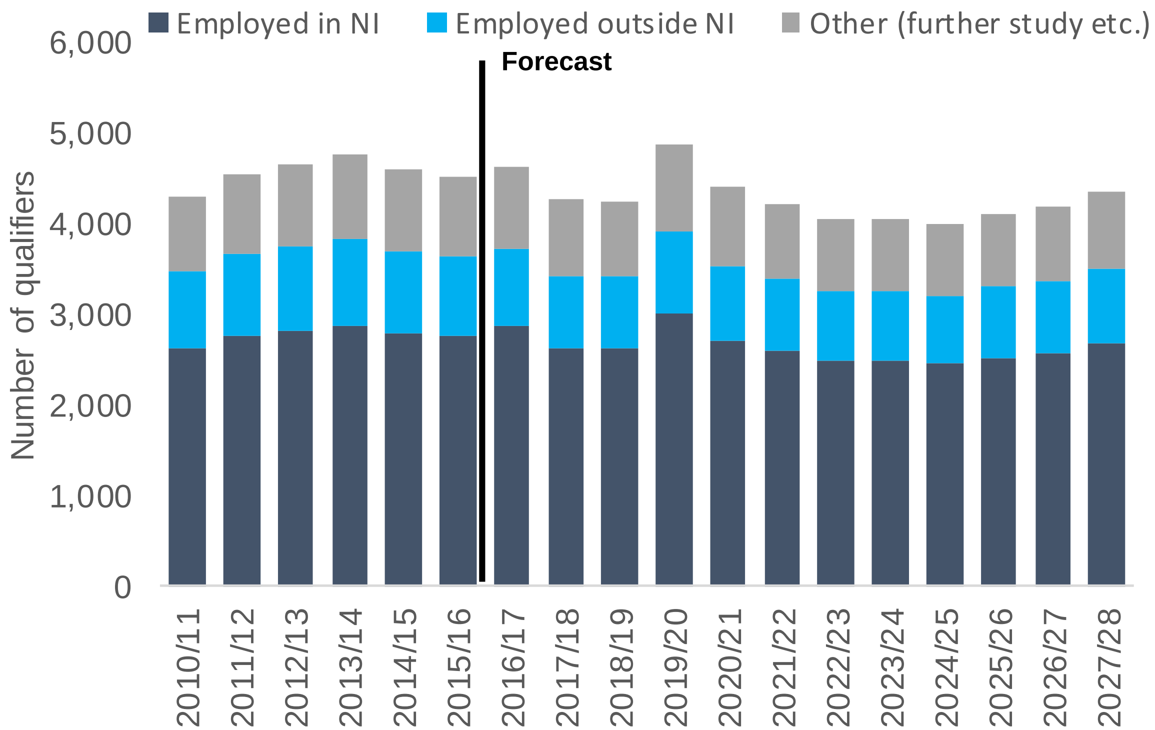
Over the coming decade 800 HE qualified residents in the Growth Region residents will work outside NI

Location of HE qualifiers 6 months after graduating, Growth Region (2010/11-2027/28)



Source: DfE, NINIS

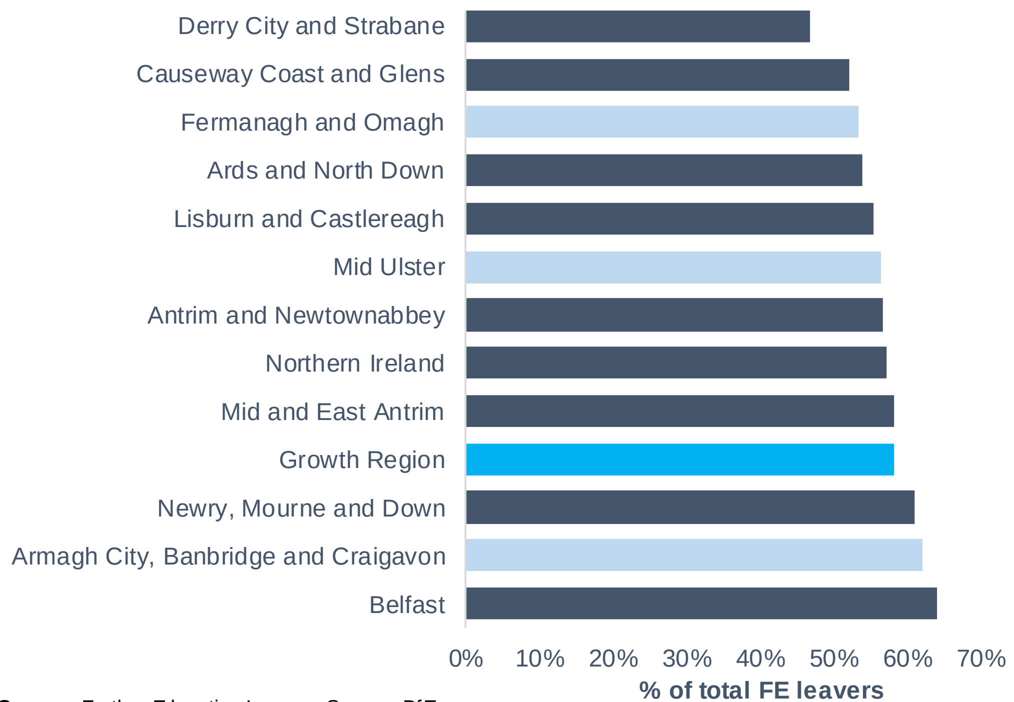
Approximately 65% of employed NI qualifiers who graduate from GB HE institutions have not returned home 6 months after graduating. Of employed NI domiciled qualifiers from NI HE institutions 19% are recorded outside NI 6 months after graduating. Assuming the same proportions apply to the Growth Region residents, this would imply a brain drain of 800 highly skilled residents from the Growth Region per annum over the next decade.

Ulster University

Higher concentration of NQF level 1 and below FE leavers in the Growth Region

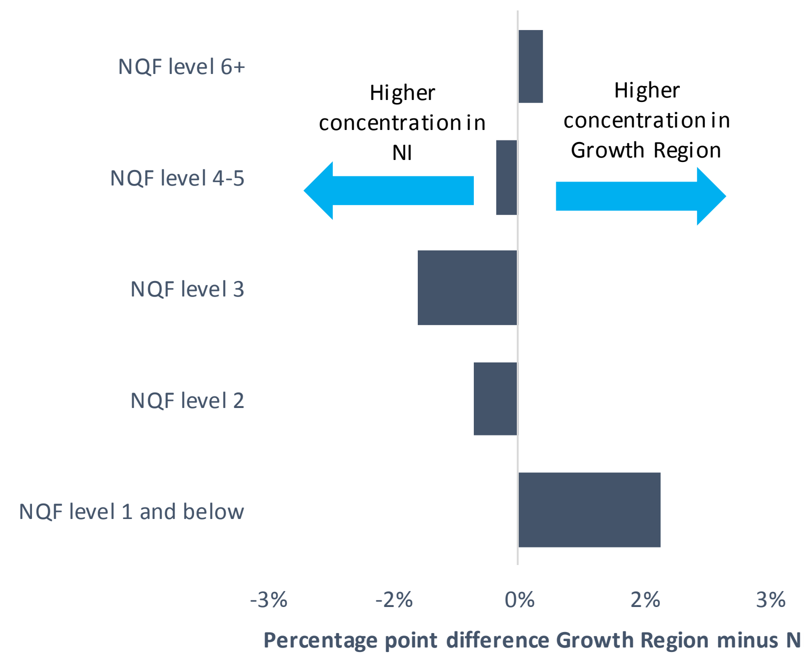
Qualification (NQF) profile of FE leavers, the Growth Region versus NI (2016/17)

Further Education leavers (%) achieving NQF level 2 or below, LGDs (2016/17)



Source: Further Education Leavers Survey, DfE

Percentage point difference in FE leavers achieving qualification level, Growth Region versus NI, LGDs (2016/17)



Source: Further Education Leavers Survey, DfE

The majority of FE qualifiers tend to qualify from low-level courses. In 2016/17 13,600 Growth Region residents qualified from FE, 58% of which from courses at NQF level 2 or below which is marginally above the NI average (57%). A further 31% qualify from NQF level 3 courses, marginally below the NI average (32%).

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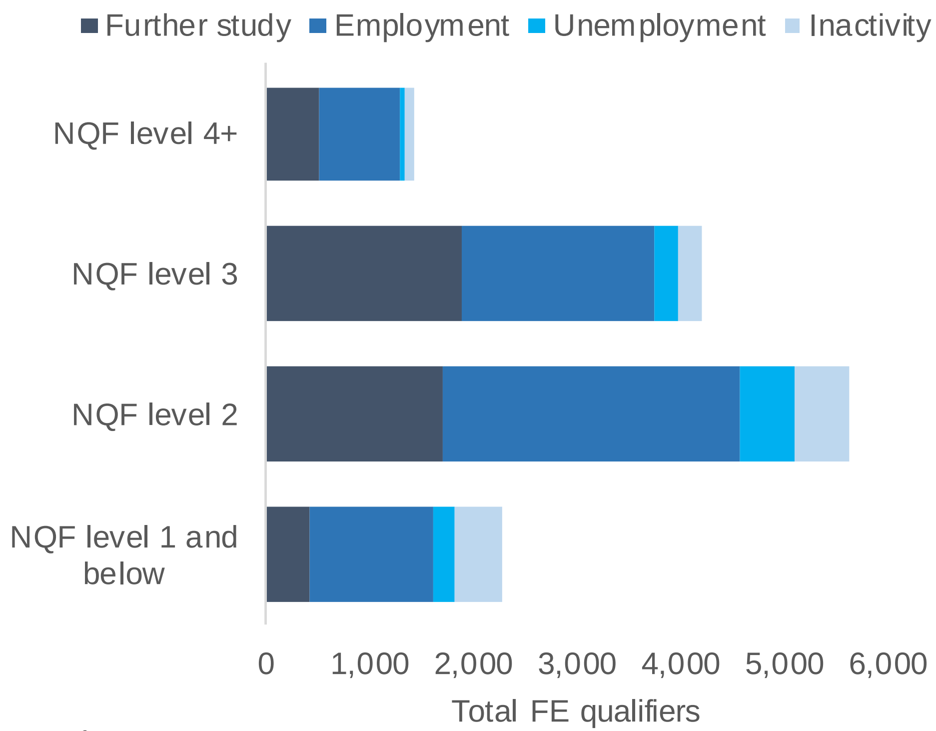
One third of FE qualifiers in the Growth Region return to further study

Destination of FE qualifiers by qualification (NQF), Growth Region (2016/17)



Source: DfE, NINIS

Although data at a sub-regional level for destinations of FE leavers is not available, it is possible to estimate by holding constant NI rates across LGDs. In the Growth Region it is estimated that half (50%) of FE leavers will proceed to employment and one third (33%) to further study. The estimated destination of FE leavers however varies across the qualification profile.

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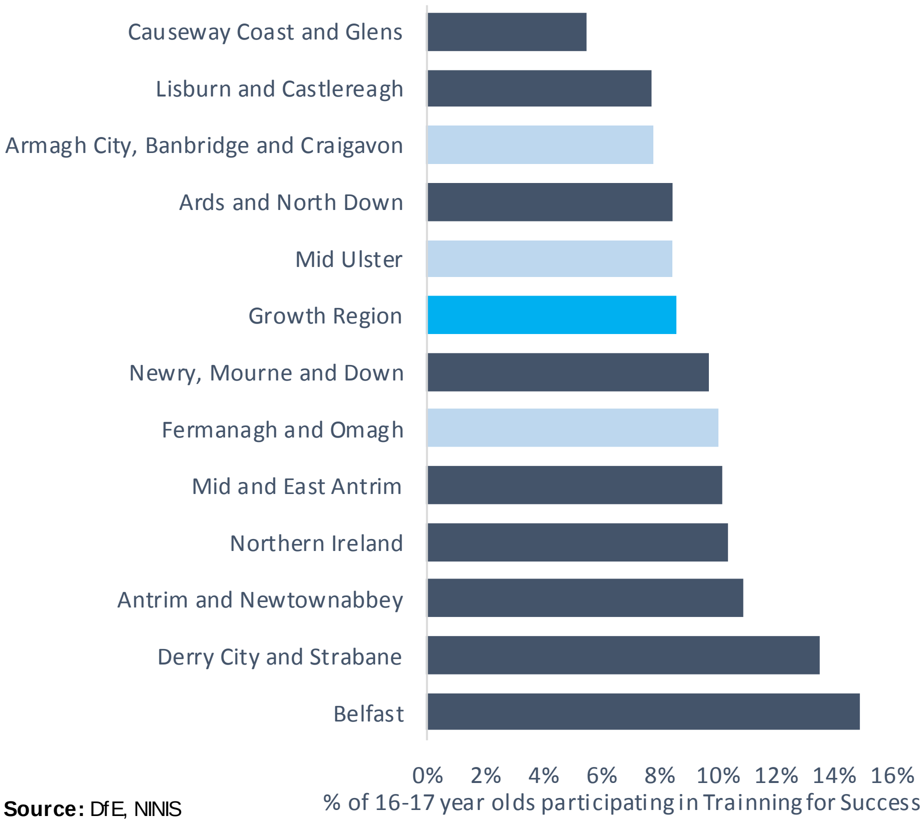
Low achievement leads to high levels of participation in publically funded training schemes (1)

Training for Success participation (% of 16-17 population), LGDs (2016)



Source: DfE, NINIS

TfS is a government training scheme which provides 16-17 year old low achievers with 104 weeks of training to gain a formal qualification.

Although NQF level 3 is possible to achieve on the training course, most participants are working towards either NQF level 1 or NQF level 2.

In 2016, 1,080 residents in the Growth Region participated in TfS training. The participation rate varies slightly across the LGDs which comprise the Growth Region, from 10% in Fermanagh and Omagh to 8% in Armagh, Banbridge and Craigavon.

Low achievement leads to high levels of participation in publically funded training schemes (2)

Essential Skills enrolments (% of 15-24 population), LGDs (2016)

LGD	Number of enrolments	Essential skills
Northern Ireland	35,780	15%
Growth Region	9,190	16%
Belfast	6,180	12%
Derry City and Strabane	3,640	18%
Armagh City, Banbridge and Craigavon	3,550	14%
Mid Ulster	3,250	17%
Causeway Coast and Glens	3,050	16%
Newry, Mourne and Down	2,990	13%
Mid and East Antrim	2,780	17%
Antrim and Newtownabbey	2,590	15%
Ards and North Down	2,460	14%
Fermanagh and Omagh	2,390	17%
Lisburn and Castlereagh	2,180	13%

Source: DfE, NINIS

Essential Skills is a government training course designed to improve reading, writing, maths and/or ICT skills with the opportunity to gain accredited qualifications.

In 2016 9,190 residents participated within Essential Skills courses, accounting for 16% of the 15-24 year olds.

Both Mid Ulster and Fermanagh and Omagh hold a participation rate of 17% of 15-24 year olds enrolled in Essential Skills courses, which is two percentage points above the NI average. The participation rate in Armagh, Banbridge and Craigavon is below the NI average, 14% and 15% respectively.

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Low achievement leads to high levels of participation in publically funded training schemes (3)

Steps to Success participation (per 1000 16-64 population), LGDs (2016)

LGD	Total enrolments	Enrolments (per 1,000 16-64 population)
Derry City and Strabane	2,100	21.9
Belfast	2,830	21.4
Causeway Coast and Glens	1,050	11.7
Fermanagh and Omagh	660	9.1
Ards and North Down	860	8.9
Newry, Mourne and Down	960	8.7
Armagh City, Banbridge and Craigavon	1,020	7.7
Mid and East Antrim	660	7.6
Growth Region	2,250	7.6
Antrim and Newtownabbey	560	6.3
Mid Ulster	580	6.3
Lisburn and Castlereagh	530	5.9

Source: DfE, NINIS

Steps to Success (StS) is a government training course compulsory for those claiming unemployment benefit for over 6 months.

The training is designed to develop skills and experience required to gain and sustain employment.

In the Growth Region 2,250 residents participated with StS, accounting for 7.6 in every 1,000 16-64 year olds.

The rate of enrolments varies across the LGDs which comprise the Growth Region ranging from 9.1 residents in every 1,000 16-64 year olds within Fermanagh and Omagh to 6.3 in Mid Ulster.

It should be noted that numbers are inextricably linked to employability of local residents and therefore the rate is higher in areas where unemployment is higher.

Ulster University

Summary of post secondary leavers

Subject studied at HE - In the Growth Region 46% of HE qualifiers have studied a STEM related subject, marginally higher than the NI average of 44%. This is driven by the rate in Armagh, Banbridge and Craigavon where 47% of HE qualifiers are from STEM related subjects.

Current versus future subject profile - There are some imbalances between the current and projected subject mix required from NQF level 6+ qualifiers. For example, currently 13% of the Growth Region HE leavers qualify in maths, computing, engineering or technology. This is seven percentage points below the forecast requirement of 20% of NQF level 6+ qualifiers.

Destination of employed HE qualifiers - Assuming NI rates apply to the Growth Region residents it is estimated 800 NI domiciled HE qualifiers per annum will be lost to working outside NI over the coming decade (2017-2027). This equates to a total loss of 8,000 HE qualifiers over the next decade.

Qualifications of FE leavers - In the Growth Region FE leavers are more likely to be qualifying from lower level courses relative to the NI average. For example, FE leavers achieving NQF level 2 or below in the Growth Region is above the NI average, 58% and 57% respectively. The Growth Region qualifiers are also less likely to qualify from NQF level 3 relative to the NI average, 31% and 32% respectively.

Summary of post secondary leavers (continued)

Destination of FE leavers - Assuming NI rates apply to the Growth Region residents it is estimated half (50%) of FE qualifiers proceed to employment and 33% to further study. However, the destination of FE leavers varies across qualification profiles. For example, over one fifth (22%) of NQF level 2 and below qualifiers are estimated to proceed to worklessness, whereas this figure drops to 11% for NQF level 3+ qualifiers. On the other hand 18% of NQF level 1 qualifiers and below are estimated to move into further study, this figure increases to 45% for NQF level 3 qualifiers.

TfS - In the Growth Region 9% of 16-17 year olds participate within TfS government training scheme, this equates to 1,080 individuals. The rate of participation is marginally below the NI average of 10%. The rate also remains similar across LGDs in the Growth Region with 9% in Mid Ulster, 10% in Fermanagh and Omagh and 8% in Armagh, Banbridge and Craigavon.

Essential skills - Under one in five (16%) of 15-24 year olds within the Growth Region are enrolled on an essential skills course, marginally above the NI average (15%). This figure is 14% across both Mid Ulster and Fermanagh and Omagh and increases to 17% for Armagh, Banbridge and Craigavon.

StS - This government training course accounts for 7.6 in every 1,000 individuals in the Growth Region, a total of 2,250 individuals. Participation varies across LGDs which comprise the growth region as enrolments per 1,000 range from a high of 9.1 in Fermanagh and Omagh compared to a low of 6.3 in mid Ulster.

Supply side – Causal factors

Ulster University

Over one in five children fail to achieve basic reading, writing and communication skills

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%	79%	9%	9%
Armagh City, Banbridge and Craigavon	77%	9%	9%	79%	9%	6%
Belfast	72%	23%	33%	74%	19%	15%
Causeway Coast and Glens	77%	9%	9%	78%	10%	6%
Derry City and Strabane	79%	6%	2%	79%	9%	6%
Fermanagh and Omagh	79%	9%	7%	81%	8%	13%
Lisburn and Castlereagh	79%	9%	7%	80%	8%	17%
Mid and East Antrim	77%	9%	9%	78%	12%	6%
Mid Ulster	79%	4%	9%	81%	6%	4%
Newry, Mourne and Down	81%	3%	2%	81%	5%	11%
Ards and North Down	77%	10%	9%	78%	7%	4%
Northern Ireland	77%	100%	100%	79%	100%	100%
Growth Region	78%	22%	24%	80%	23%	9%

Source: Department of Education

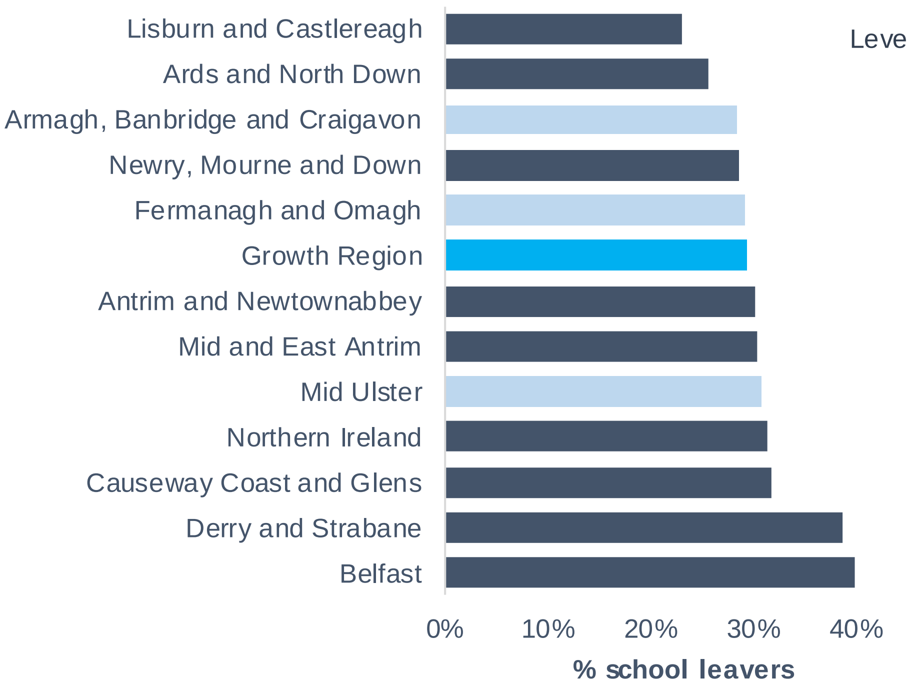
Literature suggest communication (reading, writing, talking and listening) is an important skill in the early stages of a child's education. According to research families can arguably have a greater impact on children's development than the school system and that this influence contributes to gaps between children before they start school. In the Growth Region 22% of school children do not achieve basic communication skills at Key Stage 2.

Ulster University

The level of education of parents has a more significant impact than income levels

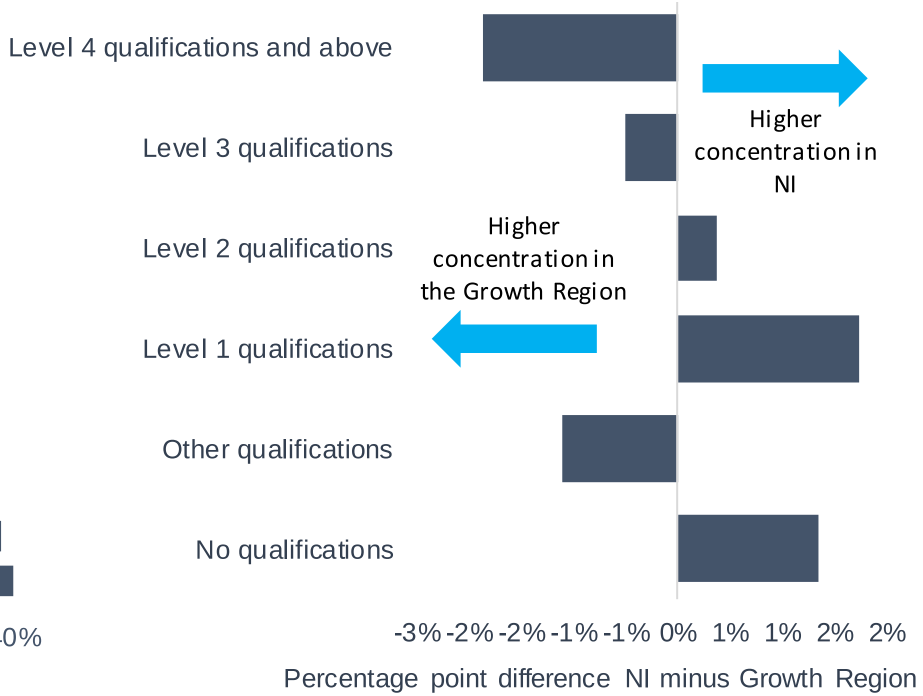
Qualification profile of mothers (of children aged 7), LGDs (2011)

Female parents (of seven year old children) with highest qualification below NQF level 2, LGDs (2011)



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

Qualification profile of mothers (of seven year old children), Growth Region vs NI (2011)



Source: NI census 2011

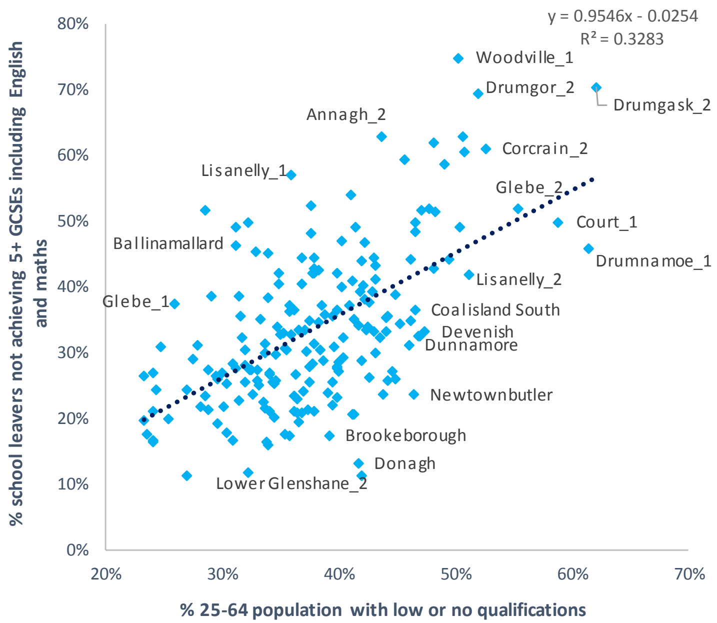
Longitudinal research undertaken in the US, UK, Australia and Canada by Bradley et al. (2015) estimates that parents with higher levels of educational attainment are 20%-25% more likely to read to their children everyday than those with low levels of education attainment. In the Growth Region, 29% of mothers have a highest level of qualification equal to NQF level 2 or below, marginally below the rate in NI as a whole (31%).

Ulster University

Adult skills and parental aspiration is a significant factor in a young persons education journey

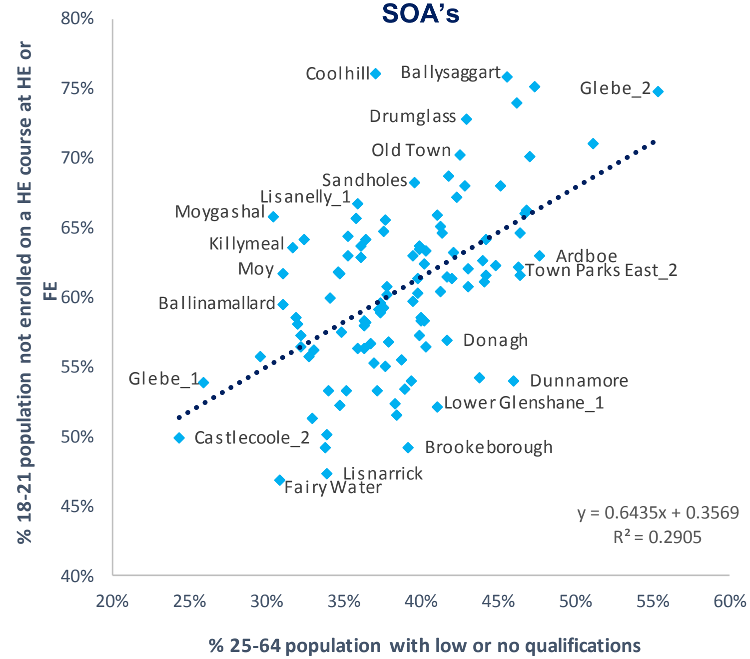
School attainment (2015/16), adult skills (2011) and HE participation (2015/16) Growth Region SOA's

% school leavers not achieving 5+ GCSEs including English and maths (2015/16) versus % of 25-64 population with low or no qualifications (2011), Growth Region SOA's



Source: NI Multiple Deprivation Measure

% 18-21 population not enrolled in HE course at HE or FE (2015/16) versus % of 25-64 population with low or no qualifications (2011), Growth Region SOA's



Source: NI Multiple Deprivation Measure

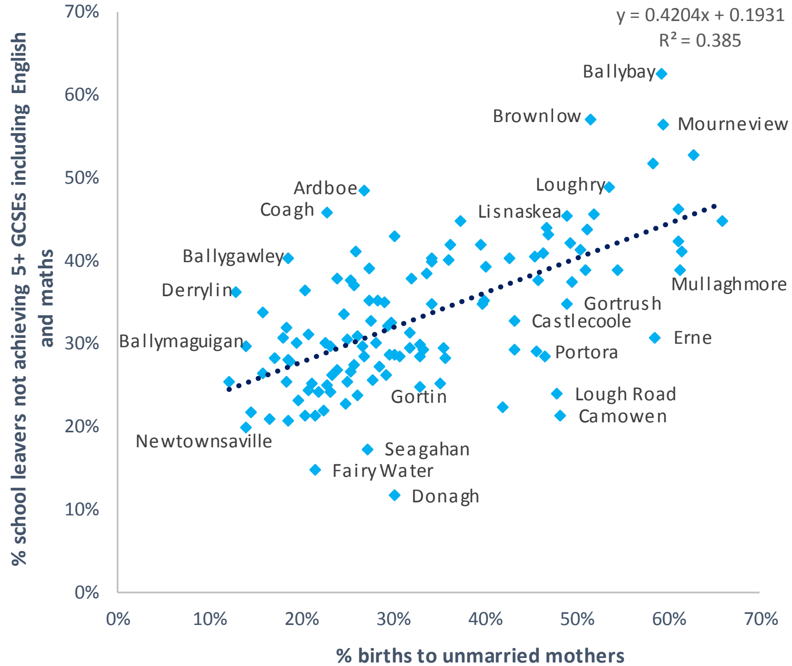
Research from Millennium Cohort Study (MCS) highlights 80% of the richest fifth of mothers expect their child to go to University but the figure falls to 40% for the poorest mothers. In the Growth Region there is a correlation between the rate of young adults not enrolled in a HE level course and the rate of adults with low or no qualifications. In addition, there is a correlation between poor school attainment and low adult qualifications.

Ulster University

Lone parents are linked to factors which adversely affect childhood education

School attainment (2013/14-2015/16) and mothers characteristics (2016, LGDs) (2014-15, Wards) Growth Region

% school leavers not achieving 5+ GCSEs including English and maths (2013/14-2015/16) versus % of births to unmarried mothers (2014-2015), Growth Region Wards



Source: NI School leavers survey

Birth rates mothers demography and household structure, LGDs (2016)

LGD	Birth rate per 1,000 female population aged 15-44	Births to teenage mothers (%)	Births to unmarried mothers (%)	Births to single parent homes (%)
Antrim and Newtownabbey	63.5	3.4%	43.2%	22.9%
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	62.0	3.3%	47.2%	28.6%
Derry City and Strabane	66.3	3.3%	55.8%	44.3%
Fermanagh and Omagh	70.4	1.7%	30.3%	16.5%
Lisburn and Castlereagh	66.6	2.8%	34.7%	16.8%
Mid and East Antrim	62.6	3.6%	41.7%	23.8%
Mid Ulster	73.8	2.4%	31.1%	15.8%
Newry, Mourne and Down	73.1	2.1%	37.9%	22.3%
Ards and North Down	59.1	3.2%	39.6%	18.5%
Northern Ireland	66.2	3.3%	43.5%	26.4%
Growth Region	72.3	2.4%	34.9%	17.8%

Source: NISRA, ONS

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

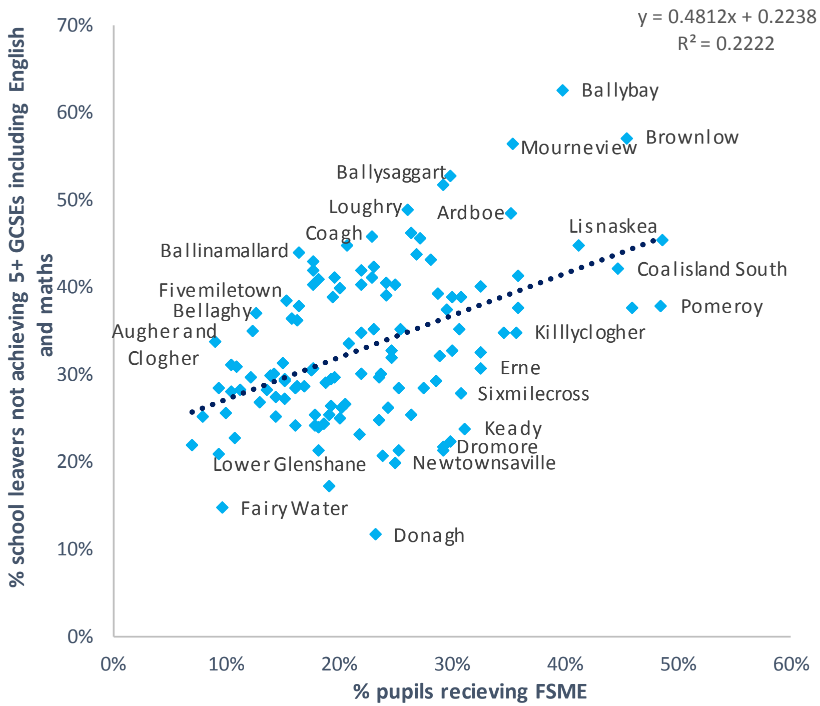
Research highlights lower cognitive ability in children within lone parent households, relative to those where both parents live together. Further, lone parents are also more likely to be in relative income poverty (40%) and so are disproportionately affected by factors associated with households in poverty. However, there is an eight percentage point difference in the proportion of births to single mothers between the Growth Region and NI, 18% and 26% respectively. This suggests the prevalence of relative income poverty among to lone parents and the associated factors are less concentrated in the Growth Region compared to other areas within NI.

Ulster University

Experiences of poverty linked to educational attainment from a young age

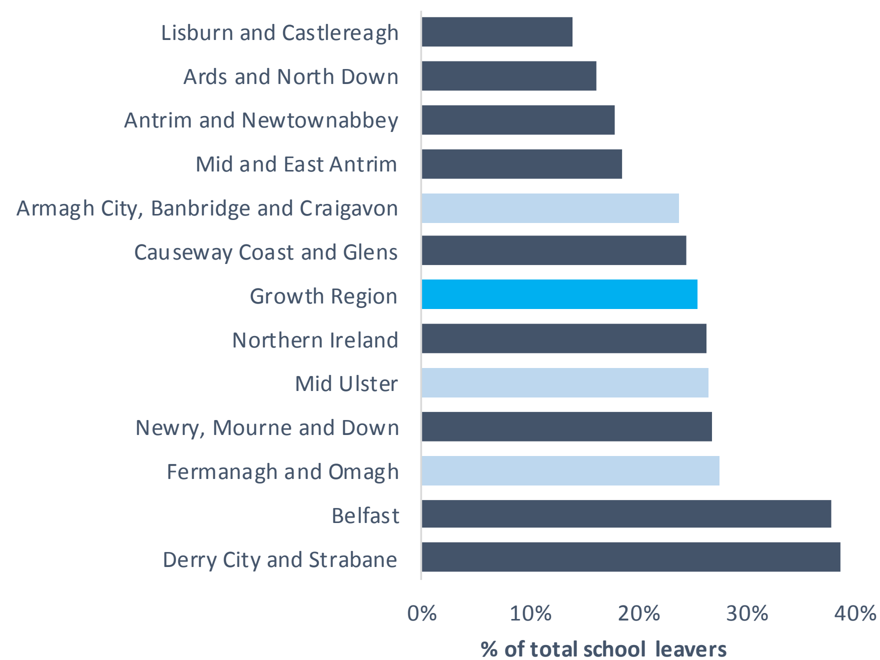
School attainment (2015/16) and FSME (2015/16), Growth Region Wards/LGDs

% school leavers not achieving 5+ GCSEs including English and maths (2013/14-2015/16) versus % of pupils receiving FSME (2013/14-2015/16), Growth Region Wards



Source: NI School leavers survey

% of school leavers in receipt of FSM, LGDs (2015/16)



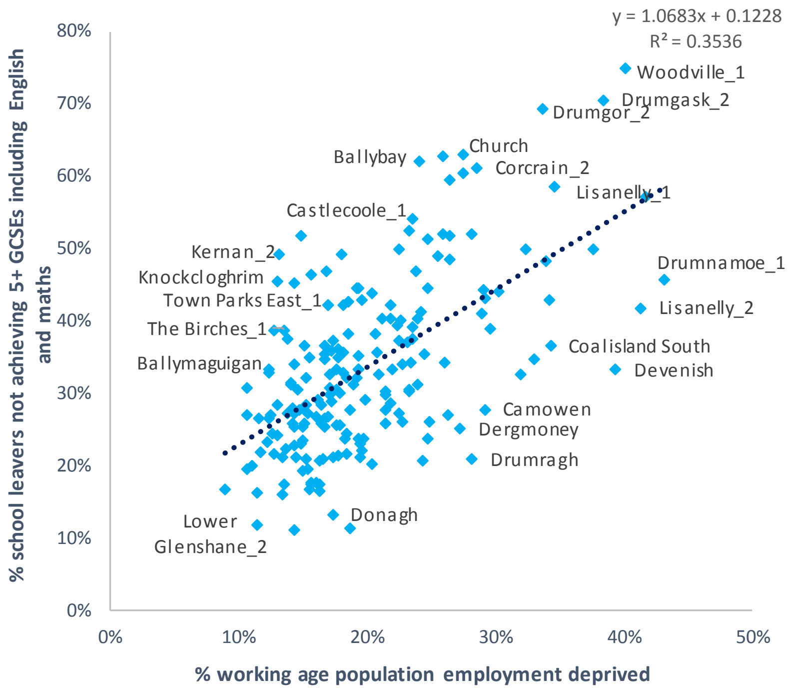
Source: NI school leavers survey

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. In the Growth Region there is a similar proportion of school leavers in receipt of FSME compared to NI, both 26%.

Parental worklessness is negatively associated with educational attainment

School attainment (2015/16) and employment deprivation (2015/16), Growth Region SOA's

% school leavers not achieving 5+ GCSEs including English and maths (2015/16) versus % of working age population employment deprived (2015/16), Growth Region SOA's



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

Comparison between relative size of LGDs and the proportion of the working age population who are employment deprived (2015/16)

	% of total SOAs	% of SOAs in lowest performing quartile	% of SOAs in lowest performing decile
Antrim and Newtownabbey	8%	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%
Ards and North Down	10%	4%	1%
Northern Ireland	100%	100%	100%
Growth region	22%	13%	8%

Source: NI multiple deprivation measure

The correlation between poor school attainment and high employment deprivation highlights worklessness in local communities as a factor holding back school achievements. However, in the Growth Region there is a proportionally lower number of employment deprived SOA's as the region accounts for 22% of SOA's but only 8% in the lowest performing decile.

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Summary of causal supply side factors*

KS2 assessment results - Communication (reading, writing, talking and listening) is an important skill in the early years of a child's education.

Over one in five (22%) children that reside in the Growth Region fail to achieve what is essentially basic reading writing and communication skills – marginally below the NI average (23%). Proficiency in numeracy skills show a similar pattern, 20% of the Growth Region residents do not achieve proficiency level 4 or above, marginally below the NI average (21%).

Influence of parents education - Research indicates the educational attainment of parents is a strong predictor in the educational performance of children. In the Growth Region, 29% of female parents (of seven year old children) have a highest qualification level below NQF level 2 (GCSEs A*-C), that is marginally below the NI average. This corresponds to the relatively strong educational attainment of the Growth Region school leavers.

At detailed geographies (SOA's) bivariate analysis highlights strong correlations between: low adult qualification levels and higher rates of poor school attainment; and low adult skill levels and higher rates of young adults not enrolled in a HE level course.

* A full set of correlations is provided in Annex C.

Household structure - Advanced countries have experienced increases in the rate of single parent households in recent decades. Research highlights characteristics of lone parent households are often linked to factors which negatively affect children's education performance, particularly in the early years (e.g. low income, low qualifications etc.).

In the Growth Region however there is a relatively low proportion of births to single parent homes (18%) compared to 26% in NI as a whole. Similarly, only 35% are to unmarried mothers, compared to 44% in NI as a whole.

Summary of causal supply side factors (continued)

Parental worklessness - The correlation between poor school attainment and employment deprivation across detailed geographical boundaries highlights the impact of worklessness on educational achievements.

However, the Growth Region hosts 22% of total NI SOAs but 8% in the lowest performing decile of employment deprivation.

Poverty and education attainment - Research highlights experiencing poverty has a negative impact on children's vocabulary ability in early years (MCS). In the Growth Region there is a similar concentration of disadvantaged pupils (as defined by FSME) to the NI average concentration. As skills represents the most effective route out of poverty it is important that tackling low performance in any ‘left behind’ areas is a priority for an economy with an aspiration of promoting inclusive growth.

Can the Growth Region's resident service tomorrow's skills needs?

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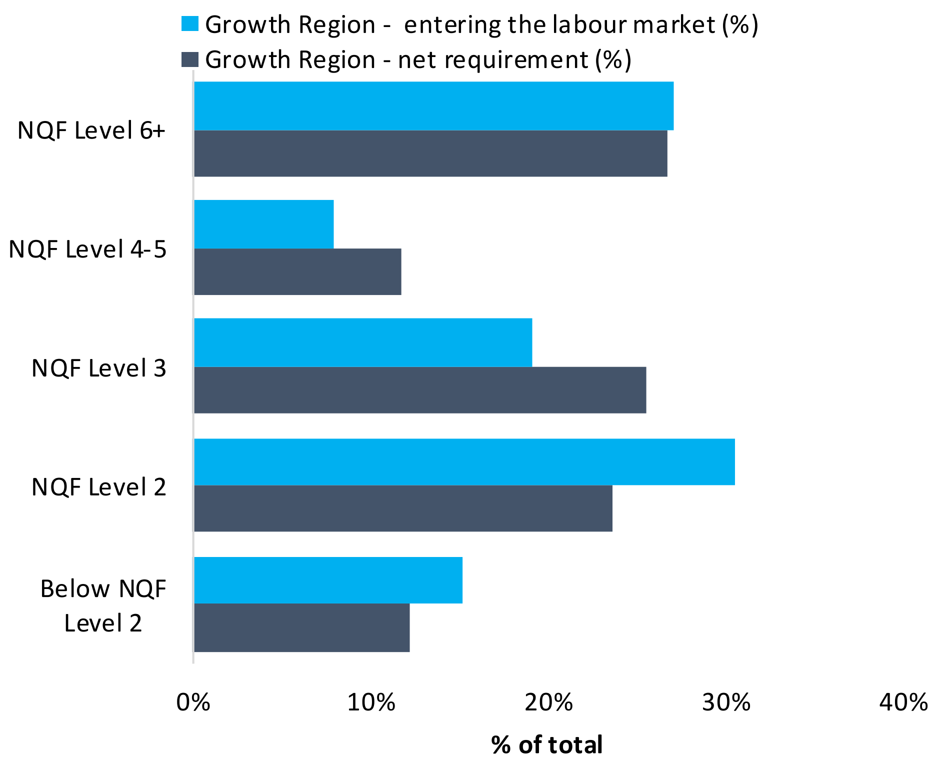
The missing middle

Net requirement vs qualification profile (NQF) of labour market entrants, Growth Region (2017-2027)



Source: UUEPC

In total 23,400 the Growth Region residents per annum are forecast to gain qualifications over the coming decade and 12,400 of such are projected to enter the labour market.

Benchmarking the skills profile of net requirement against those entering the labour market outlines:

- A general alignment at high-level skills (NQF level 6+) suggesting the subject mix may be more of an issue here.
- A shortage of mid-level skills (NQF level 3-5) as 27% of qualifiers are due to enter the labour market but demand is forecast to require 37%.
- An over supply of low-level skills (NQF level 2 and below) as 46% of qualifiers entering the labour market at this level, compared to a net requirement of 36%.

Labour market supply by qualification level (NQF), Growth Region (2017-2027, annual average)

	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	1,110	490	2,240	1,390	*	*	3,350	1,880
NQF level 2	1,550	450	5,540	3,340	*	*	7,090	3,790
NQF level 3	3,240	330	4,150	2,050	*	*	7,390	2,380
NQF level 4 - 5	*	*	1,300	750	330	260	1,630	1,010
NQF level 6	*	*	50	40	3,050	2,500	3,100	2,540
NQF level 7 - 8	*	*	0	0	870	810	870	810

Source: UUEPC
Note: ** refers to not applicable*

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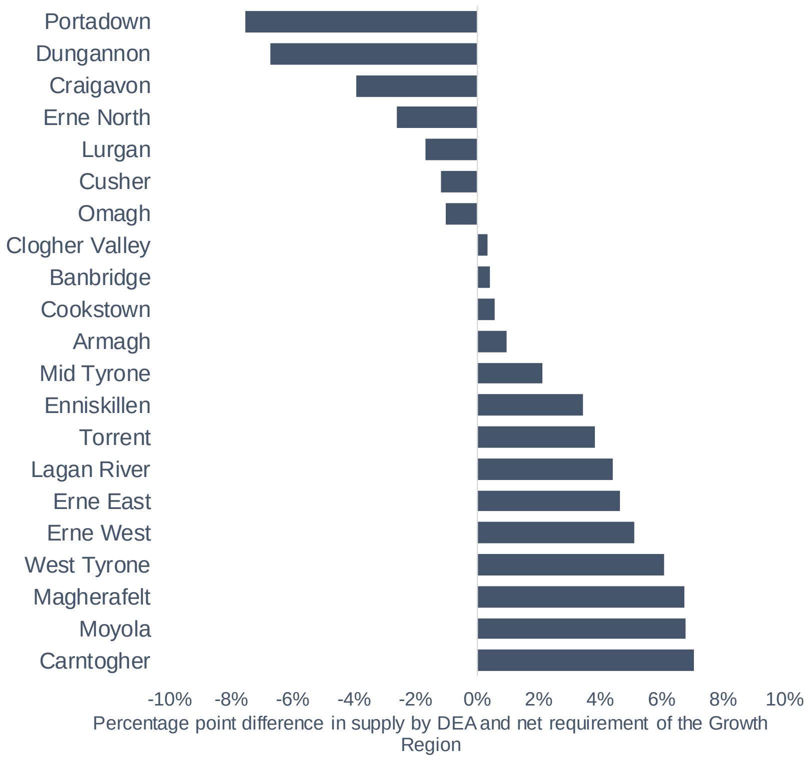
The skill balance varies across the the Growth Region

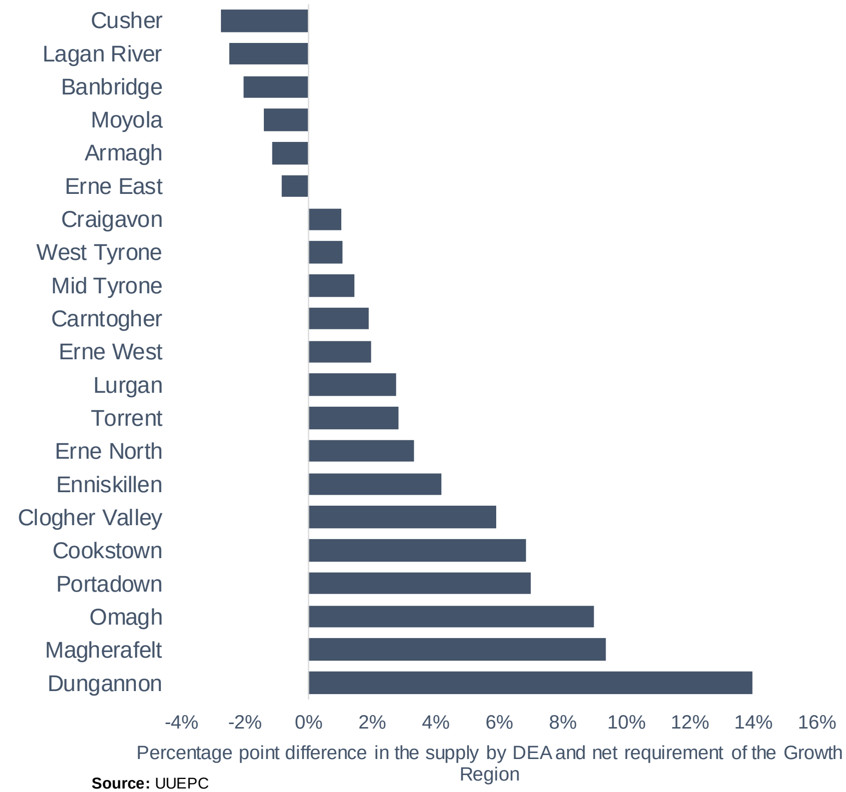
Net requirement versus supply, Growth Region DEA’s (2017-2027)

Percentage point difference in demand and supply by NQF level 6+, Growth Region DEA’s (2017-2027)



Source: UUEPC

Percentage point difference in demand and supply by below NQF level 2, Growth Region DEA’s (2017-2027)



Source: UUEPC

The largest gap between supply and demand at NQF level 6+ is in Portadown where supply is eight percentage points below the net requirement. This compares to Carntogher where supply of high level qualifications is seven percentage points above the net requirement. It is evident such gaps are indicative of differences in HE participation across the Growth Region.

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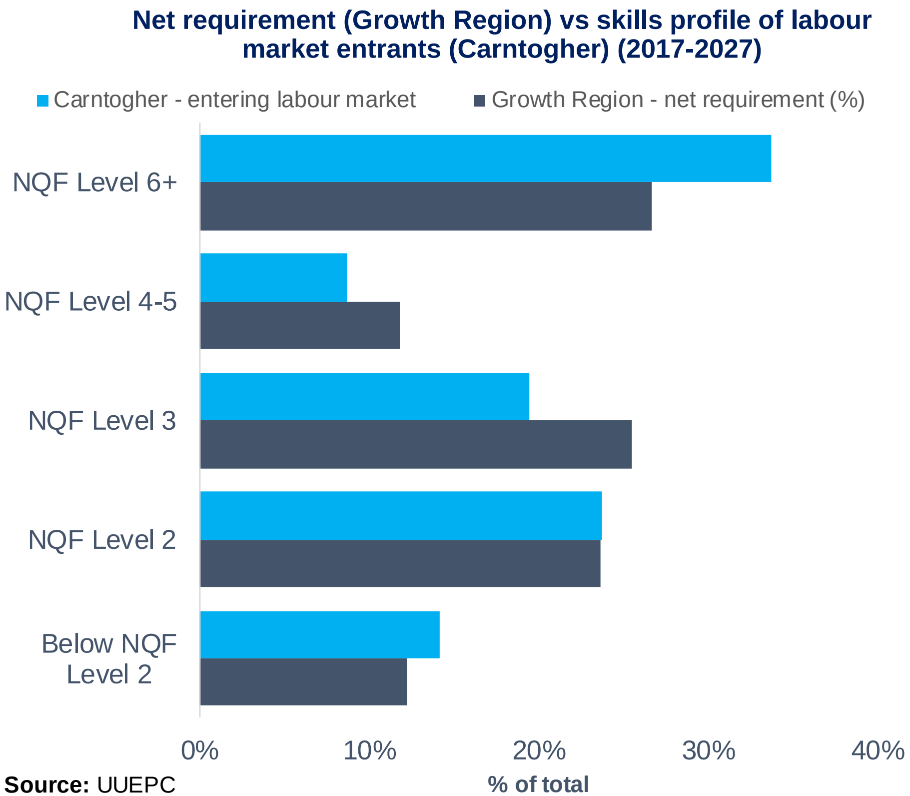
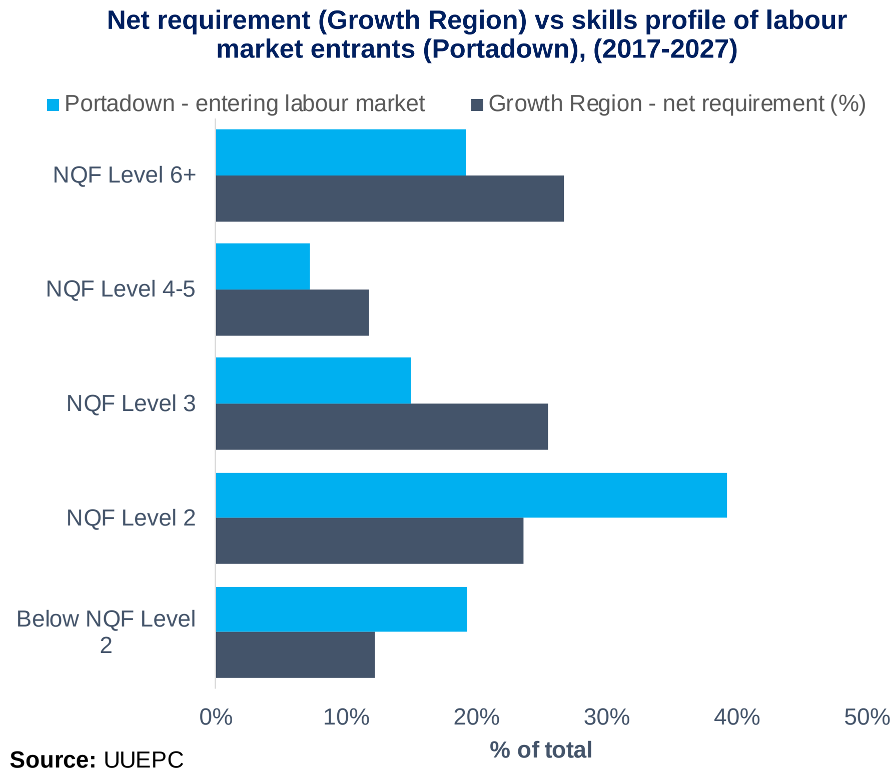
Diverse labour markets operate within the Growth Region

Net requirement versus qualification profile of labour market entrants, Carntogher and Portadown, (2017-2027)



Source: UUEPC



Source: UUEPC

In Carntogher 14% of individuals due to enter the labour market over the coming decade have below NQF level 2 qualifications, compared to 19% in Portadown. On the other hand, in Portadown 19% of individuals due to enter the labour market over the coming decade are expected to have NQF level 6+ qualifications, compared to 34% in Cartnogher.

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Economic and social challenges must be overcome to improve the skills flow and skills stock

Scorecard (1= top performing in NI, 80= bottom performing in NI), Fermanagh and Omagh DEA’s

Fermanagh and Omagh		Erne North	Erne West	Mid Tyrone	Erne East	Omagh	Enniskillen	West Tyrone
Skills flow	% of school leavers achieving 5 GCSE’s (including English and maths)	73	43	26	16	68	56	4
	% of school enrolments entitled to FSM	42	32	47	60	69	53	33
	% of school leavers entitled to FSM achieving 5 GCSE’s (including English and maths)	33	42	48	71	62	53	56
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	39	22	33	6	61	17	21
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	49	55	50	36	74	61	60
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	55	5	4	25	32	14	7
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	80	72	38	74	29	66	75
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	47	37	18	35	12	43	20
Skills stock	% of 16-64 population with low qualifications (Below level 2)	61	50	34	70	65	47	49
	% of 16-64 population with high qualifications (NQF level 4+)	59	40	27	67	46	32	37
	% of 16-34 population with low qualifications (Below NQF level 2)	53	42	25	55	68	62	31
	% of 16-34 population with high qualifications (NQF level 4+)	37	21	19	40	45	44	22
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	46	15	50	36	73	53	44
	Social security clients (client group analysis) as a % of the population (16-34)	49	14	31	33	61	59	25
	Housing benefit claimants as a % of the population (16-64)	41	10	17	34	69	55	28
	Housing benefit claimants as a % of the population (16-34)	46	11	14	30	62	58	17
	% of households with no adults in employment	43	15	14	34	72	42	25
	% of households with no adults in employment with dependent children	33	13	51	41	64	38	36
	% of households with lone parents with dependent children	24	1	8	17	59	45	5
	% of people employed who are either managers/senior officials or professionals	27	51	64	67	61	39	58
	Employment rate (%, 16-74 population)	44	18	45	49	70	37	40
	Unemployed who have never worked (% of unemployed)	51	34	57	48	70	41	56

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

There are few metrics where DEA’s within Fermanagh and Omagh perform amongst NI’s lowest performing areas. Further, there are few DEA’s within Fermanagh and Omagh that perform among the top ten performing DEA’s across more than one metric. Therefore there are economic and social challenges to overcome that will ultimately help improve the skills stock of Fermanagh and Omagh.

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Economic and social challenges must be overcome to improve the skills flow and skills stock

Scorecard (1= top performing in NI, 80= bottom performing in NI), Mid Ulster DEA's

Mid Ulster		Torrent	Clogher Valley	Moyola	Dungannon	Cookstown	Magherafelt	Carntogher
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	43	33	55	42	65	78	12
	% of school enrolments entitled to FSM	61	25	17	48	62	27	24
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	65	54	43	51	64	11	37
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	18	44	13	71	42	50	30
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	56	71	48	79	72	77	65
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	44	23	53	67	74	31	38
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	59	34	14	64	71	33	47
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	6	3	48	20	45	15	1
Skills stock	% of 16-64 population with low qualifications (Below level 2)	58	52	38	74	71	51	42
	% of 16-64 population with high qualifications (NQF level 4+)	60	47	42	54	73	50	51
	% of 16-34 population with low qualifications (Below NQF level 2)	47	35	19	79	63	49	23
	% of 16-34 population with high qualifications (NQF level 4+)	42	23	26	63	64	50	31
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	51	22	19	35	49	31	23
	Social security clients (client group analysis) as a % of the population (16-34)	39	12	5	36	38	27	8
	Housing benefit claimants as a % of the population (16-64)	32	11	14	39	36	29	18
	Housing benefit claimants as a % of the population (16-34)	26	10	8	36	31	19	2
	% of households with no adults in employment	39	13	6	29	41	16	10
	% of households with no adults in employment with dependent children	69	25	31	43	49	52	39
	% of households with lone parents with dependent children	54	9	7	46	41	36	12
	% of people employed who are either managers/senior officials or professionals	50	65	57	60	54	46	74
	Employment rate (%, 16-74 population)	65	19	23	32	57	33	39
	Unemployed who have never worked (% of unemployed)	52	61	25	73	68	27	16

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

There are metrics where DEA's within Mid Ulster perform amongst NI's lowest performing areas. Further, there are DEA's within Mid Ulster that perform among the top ten performing DEA's across more than one metric. This highlights the level of skills stock and the flow of skills varies considerably across Mid Ulster. By implication the poor performing areas are likely to be falling behind more affluent parts of the region. These are economic and social challenges to overcome that will ultimately help improve the skills stock of Mid Ulster.

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Economic and social challenges must be overcome to improve the skills flow and skills stock

Scorecard (1= top performing in NI, 80= bottom performing in NI), Armagh City, Banbridge and Craigavon DEA's

Armagh City, Banbridge and Craigavon		Lurgan	Portadown	Banbridge	Armagh	Craigavon	Lagan River	Cusher
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	67	66	34	30	64	22	31
	% of school enrolments entitled to FSM	44	52	31	55	45	7	29
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	50	45	24	63	28	5	29
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	65	79	51	68	70	27	52
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	41	63	11	25	38	8	10
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	64	70	37	52	65	8	16
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	37	62	66	76	60	34	55
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	49	8	37	46	27	53	28
Skills stock	% of 16-64 population with low qualifications (Below level 2)	53	72	33	56	48	12	37
	% of 16-64 population with high qualifications (NQF level 4+)	58	65	39	52	38	12	45
	% of 16-34 population with low qualifications (Below NQF level 2)	57	73	36	60	58	8	33
	% of 16-34 population with high qualifications (NQF level 4+)	56	55	29	62	32	8	28
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	55	43	39	41	42	6	25
	Social security clients (client group analysis) as a % of the population (16-34)	53	40	37	42	45	3	20
	Housing benefit claimants as a % of the population (16-64)	54	53	37	47	35	5	15
	Housing benefit claimants as a % of the population (16-34)	55	47	38	42	35	4	15
	% of households with no adults in employment	54	53	27	47	18	3	8
	% of households with no adults in employment with dependent children	55	45	35	56	60	14	26
	% of households with lone parents with dependent children	56	49	42	50	55	15	26
	% of people employed who are either managers/senior officials or professionals	45	63	23	43	35	10	26
	Employment rate (%, 16-74 population)	51	46	22	56	34	4	14
	Unemployed who have never worked (% of unemployed)	40	32	26	54	62	1	36

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

Ranked in the top 10 performing DEA's in NI (green)

Ranked in the bottom 10 performing DEA's in NI (red)

There are very few metrics where DEA's within Armagh City, Banbridge and Craigavon perform amongst NI's lowest performing areas. Further, there are only two DEA's within Armagh City, Banbridge and Craigavon that perform among the top ten performing DEA's across more than one metric. Therefore there are economic and social challenges to overcome that will ultimately help improve the skills stock of Armagh City, Banbridge and Craigavon.

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Summary of skill balances

The Growth Region skills balance - The number of high skilled (NQF level 6+) individuals supplied is largely in alignment with the number demanded. However, it is important to recognise the subject mix of such qualifiers is likely to cause issue as opposed to the overall volume.

At mid level (NQF level 3-5) there is a shortage of skills as 27% of qualifiers are due to enter the labour market but demand is forecast to require 37%.

There is an oversupply of low-level (NQF level 2 and below) skills as 46% of qualifiers entering the labour market enter at this level, compared to 36% required through net requirement.

Diverse labour market - There are differences in the skill profile across the Growth Region. Therefore, it is important for economic policy to ensure job opportunities are available across the qualification spectrum, enabling inclusive growth. In addition, misalignments between demand and supply across the Growth Region's DEA's* highlights a need to upskill individuals in order to meet demand where required.

Understanding what works - There are metrics where DEA's within the Growth Region perform amongst NI's lowest performing areas. However, there are also instances of DEA's in the Growth Region that perform among the top ten performing DEA's across a range of metrics. This highlights the level of skills stock and the flow of skills varies considerably across the Growth Region. Therefore there are economic and social challenges that policy should prioritise to ultimately help improve the skills stock of the Growth Region.

* A scorecard for each DEA in the Growth Region is provided in Annex E.

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Conclusions

Demand side of the the Growth Region economy

The commuting patterns reviewed in this research identified key trends in workers traveling to and from the Growth Region.

The Growth Region out-commuters: Growth Region residents that work within the Growth Region account for 84% of total resident employment, suggesting 16% of residents commute elsewhere**.** According to the Census 2011 this translated to around 29,900 workers commute out of the Growth Region to other LGD's for employment. These workers typically commute out of the region for jobs within the public sector which are of a relatively higher skilled nature, compared to the Growth Region workplace.

The Growth Region in-commuters: The Growth Region residents account for 91% of total workplace employment, suggesting 9% of workers commute to the region**.** According to the Census 2011 this translated to around 14,600 workers commuting to the Growth Region from other LGD's within NI for employment.

The net commuting flow is an outflow of workers from the Growth Region, most predominantly to Belfast and Lisburn and Castlereagh. A continually high volume of the Growth Region residents leaving for employment opportunities (particularly in Belfast) could have implications for future infrastructure planning and over the longer term it will be important that such labour market opportunities are available in the Growth Region.

Demand side growth of the Growth Region economy

Recent performance: The number of jobs in the Growth Region increased by 16,550 over the 2012-2017 period, accounting for 24% of job growth in NI. In absolute terms, the largest quantum of job growth was in manufacturing, construction and administration and support services.

Future growth: Under a high growth scenario, future job growth (expansion demand) over the coming decade in the Growth Region will be driven by high growth in sectors such as IT and professional services. This translates to high growth in science and technology occupations, which highlights the importance of education performance in STEM subject areas.

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. This would involve a personal cost to individual's investing in their skills development who are 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.

Forecasting in any context is never a precise science. While it is prudent to plan for high growth, it is important to undertake **contingency planning** in the event that the ambitions of economic policy are not achieved. The skills requirements based on a more conservative baseline scenario are provided in Annex A.

Labour market flows generate job opportunities

Replacement demand: The Growth Region is forecast to experience employment growth (i.e. expansion demand) in the UUEPC high growth scenario, however net replacement demand is expected to account for a much larger quantum of opportunities (e.g. replacing workers who have retired, moved to another position etc.).

Sector distribution of replacement demand: The largest sectors tend to be associated with the highest levels of replacement demand. Therefore, sectors such as manufacturing, construction and health and social will have relatively large levels of replacement demand in the Growth Region 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.

Transitions within the labour market: A significant proportion 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 within the labour market rather than recruitment from the education system (net requirement).

Qualifications versus skills: 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 is an insider-outsider element to the end of the labour market characterised by low qualifications. 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.

Qualifications are increasingly important for labour market access

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).

Sector outlook: Manufacturing is forecast to provide the most job opportunities in the Growth Region. This is a useful example relating to the importance of replacement demand. As an expanding industry, manufacturing is expected to create jobs through hiring additional workers and replacement demand.

Labour demand is increasingly qualifications hungry: Of the net requirement from education and migration over the coming decade, 27% of job opportunities will require a degree level qualification (NQF level 6+). Only 12% of the net requirement from education and migration will require qualifications below NQF level 2. This suggests that it is imperative that the number of young people with low-level qualifications is minimised. 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.

Subject demand: The most in-demand degree subjects (NQF level 6+) are medical related subjects; business and finance; and engineering. At sub-degree level (NQF level 4-5) the most in-demand subjects are engineering and manufacturing technologies, health, public services and care and business administration and finance and law.

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Educational attainment in schools

School leaver attainment: In the Growth Region 67.2% of school leavers achieved at least five GCSE's A*-C (including English and maths), marginally below NI average (67.8%). This figure has improved by eight percentage points over the last 8 years. School leavers achieving 2+ A-levels A*-E (55.0%) is also marginally below above the NI average (57.4%).

Tackling low achievement is a significant spatial challenge: Low education achievement is geographically concentrated. However, the Growth Region contains a proportionately lower number of low achieving areas. For example, 26% of total wards in NI are in the Growth Region, yet 20% of the wards in the lowest performing quartile are in the Growth Region, in relation to GCSE performance.

Children in deprived households face significant challenges: Children in deprived households are identified by their FSME. Just under half (47%) of FSME children achieve 5 GCSE's A*-C (including English and maths), compared to almost three-quarters (74%) of non-FSME pupils. Although the outcomes for FSME pupils has improved, the outcomes for non-FSME pupils has improved at a marginally faster rate, meaning the gap has widened in the most recent year.

Literacy and numeracy: Given the importance that employers put on literacy and numeracy skills the mix of GCSE subjects is worth consideration. In the Growth Region 81.2% of school leavers achieve at least five GCSE's, yet only 67.2% achieve at least five GCSE's including English and maths. In other words, there is a significant number of school leavers who achieve NQF level 2; however, they have not achieved the key subjects of English and maths. This will cause labour market challenges as many jobs, education courses and employment programmes require English and maths for access. Many school leavers who fail to achieve English and maths will end up re-sitting these qualifications in another setting such as FE institutions.

The determinants of education performance transcend across a range

Early intervention initiatives have the most significant influence. This is because gaps between children have already emerged prior to starting school. These gaps are influenced by multifarious economic and social factors outside the school environment.

- **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 school performance and socioeconomic indicators such as poverty (free school meal entitlement) and employment deprivation .
- **Aspiration in high deprivation areas:** The participation of young people in HE in small areas also correlates significantly with the qualifications of qualifications of the 25-64 year old population. This data highlights a lower participation rate in areas where adult skills are low, suggesting that low adult skills in an area can negatively affect the education aspiration of young people in that area.
- **Family structure:** There is a statistically significant relationship between the proportion of births to lone parents and school performance, with lone parents likely to be low achievers relative to other family types. Lone parents are a particularly vulnerable group and areas with a high proportion of lone parents tend to correlate significantly with a number of indicators relating to poverty.

These factors reinforce each other, which contributes to geographic concentrations of low achievement in discrete areas. Although this is most predominantly an issue in more urban areas, sub-regional areas must be conscious of these implications. There is no single policy initiative that will solve the spatial concentration of skills deficits. Therefore, a multi-agency locally focused 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.

Skills balances

Graduates (NQF level 6+) balances: In the Growth Region the demand and supply of graduates are aligned. Approximately 27% of the Growth Region residents enter the labour market with an NQF level 6+ qualification compared to 27% of the net requirement. However, it should be noted there may still be a mismatch of subject requirements at this level.

Mid-level skills (NQF level 3-5): There is some misalignment between the profile of demand and supply for mid-level skills. Relatively fewer people enter the labour market with this level of qualification. In the Growth Region 37% of the net requirement is related to NQF level 3-5, yet only 27% of the Growth Region residents entering the labour market are qualified to NQF level 3-5.

Low-level skills (NQF level 2 and below): There is an oversupply of qualifications associated with low NQF level qualifications. That is, 46% of those entering the labour market hold NQF level 2 or below qualifications, compared to a 36% net requirement. With employers becoming increasingly 'qualifications hungry' there are limited job opportunities that will be available to this group without further study.

Wider considerations

Lifelong learning: 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 lifelong learning to enable greater occupational mobility in the labour market.

Skills versus qualifications: There are many people in the labour market who have a low level of qualification, yet are highly skilled. In other words, people who have accumulated skills on the job but do not have a qualification on the NQF framework to recognise their skill level. Validating formal and non-formal learning strengthens an individuals incentive to invest in training, and improves the signalling power of those who are highly skilled but poorly qualified.

Applied work skills: Employer surveys consistently report a lack of basic employability skills amongst graduates. Improving the soft skills of graduates should be a shared responsibility between education providers and employers. Education providers contribute to employability skills through curriculum design, and, where possible, simulation a work environment in teaching methods. Employers enhance employability skills via effective training. The provision of work placements is one method which has proved to be very effective in improving the employability skills of graduates. However, the number of available placements provided by employers has not expanded at the same pace as higher education participation in recent years.

The cost of the long tail of underachievement: Low achievers are likely to become tied up in the education and training system for a number of years at a significant public cost. In the long run they are also more likely to become workless and generate a fiscal cost via out of work benefits. The analysis in this report has highlighted the link between socio-economic indicators and education underperformance, and the concentration of underachievement in relatively deprived small areas. As skills represents the most effective route out of poverty, tackling low performance in these ‘left behind areas’ must be a priority to ensure future economic growth is inclusive for all.

Annex A: Baseline scenario

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Expansion and replacement demand under the baseline scenario

UUEPC's baseline scenario directly links to UUEPC forecasting model and is considered to be the most likely economic trajectory for the local economy.

The employment outlook in the baseline scenario is considerably lower than the high growth scenario previously presented.

Under baseline conditions there is a lower expansion demand and a larger component of labour demand comes from replacing workers who have left their position. Therefore the net replacement demand over the coming decade is forecast to be 4,130 compared to an expansion demand of 190. On average over the 2017-2027 period annual the annual net requirement from education and migration is forecast to be 870 lower compared to the high growth scenario.

Expansion demand and replacement demand (baseline scenario), Growth Region (2017-2027)

Demand category	2012-2017 (annual)	2017-2027 (annual)
(A) Gross demand	17,070	15,810
(B) Expansion demand	1,140	190
(C) Replacement demand	15,930	15,620
(D) Filled from within the existing labour market	11,880	11,490
(E) Net replacement demand	4,050	4,130
(F) Net requirement from education and migration	**5,190**	**4,320**

Source: UUEPC

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

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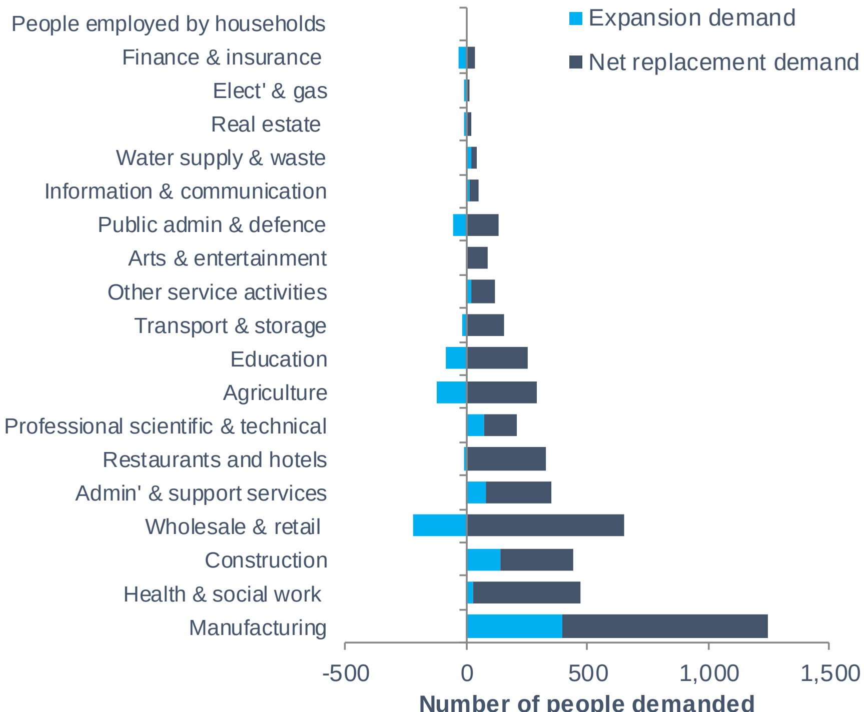
Differences between the baseline and high growth scenarios are largest in forecast high growth sectors

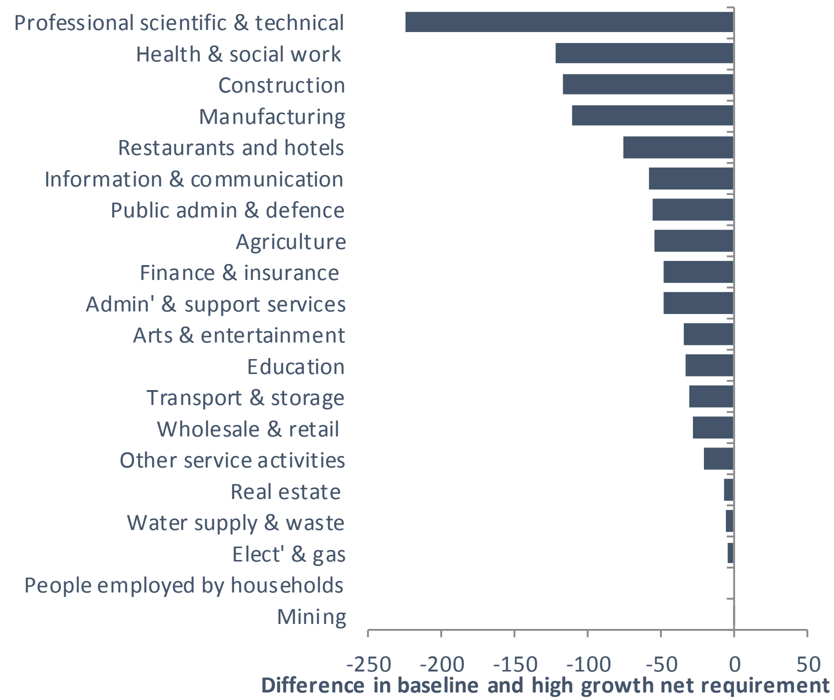
Expansion demand and replacement demand by sector (1-digit), baseline versus high growth scenarios, Growth Region (2017-2027)

Net requirement (expansion and replacement) by sector (1-digit), Growth Region (2017-2017)



Source: UUEPC

Difference between baseline and high growth scenario's by sector (1-digit), Growth Region (2017-2027)



Source: UUEPC

Under the baseline scenario the sectors with the largest net requirement from education and migration are manufacturing (1,250 per annum) and health and social work (470 per annum). The largest differences between the two scenarios are in professional services (220 less net requirement per annum under the baseline scenario) and health and social work (120 less net requirement per annum under the baseline scenario).

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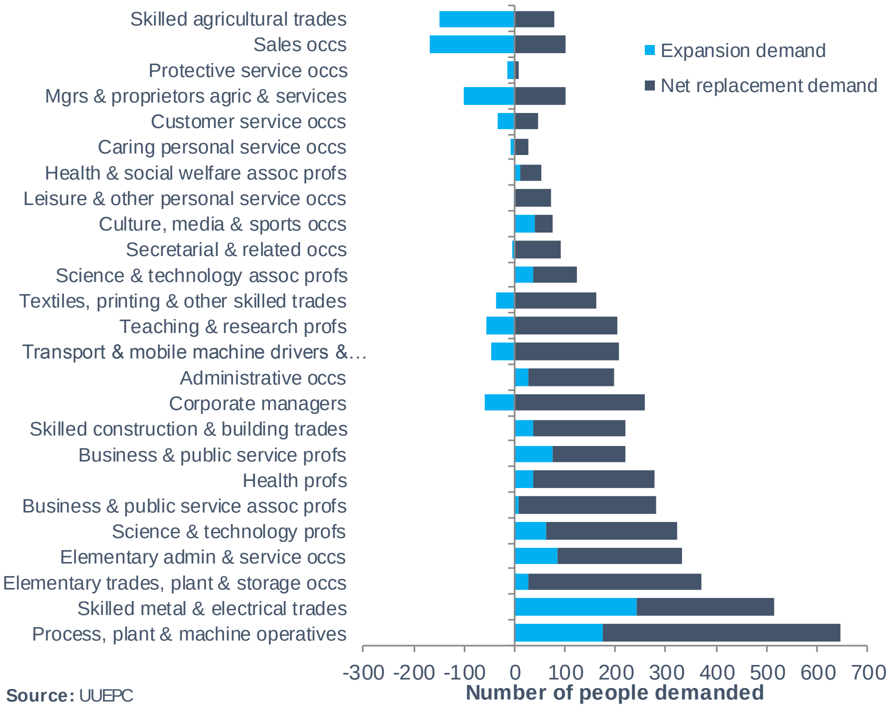
Replacement demand represents a higher proportion of labour demand the baseline scenario

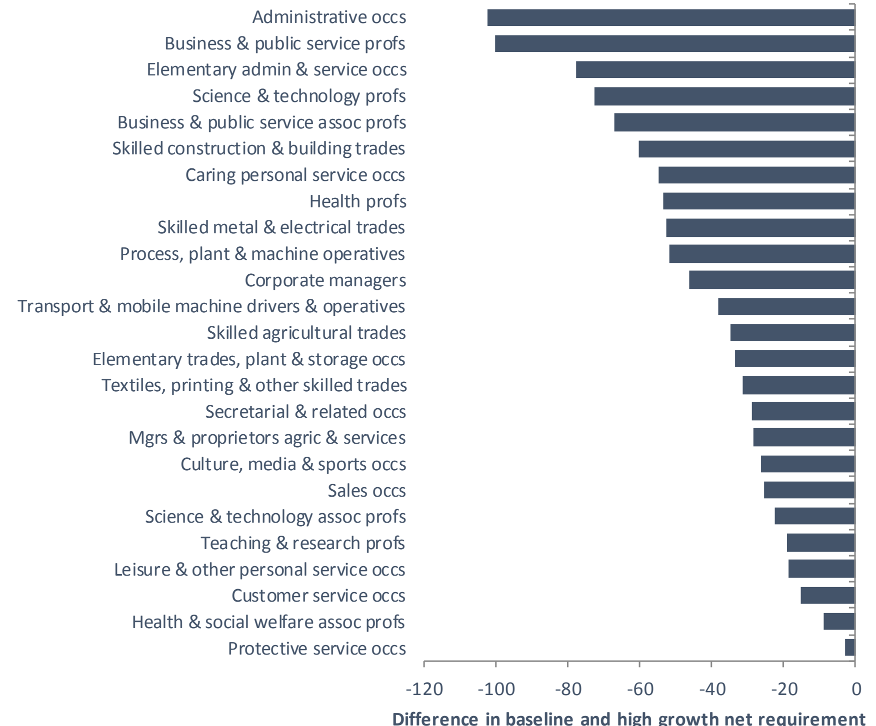
Expansion demand and replacement demand by occupation (2-digit), baseline versus high growth scenarios, Growth Region (2017-2027)

Net requirement (expansion and replacement) by occupation (2-digit), Growth Region (2017-2027)



Source: UUEPC

Difference between baseline and high growth scenarios by occupation (2 digit), Growth Region (2017-2027)



Source: UUEPC

Under the baseline scenario the occupations with the largest net requirement over the coming decade are process plant and machine operatives (650) and skilled metal and electrical trades (515). The largest differences between the two scenarios are in administrative occupations (100 less net requirement per annum under the baseline scenario) and business and public service professionals (100 less net requirement per annum under the baseline scenario).

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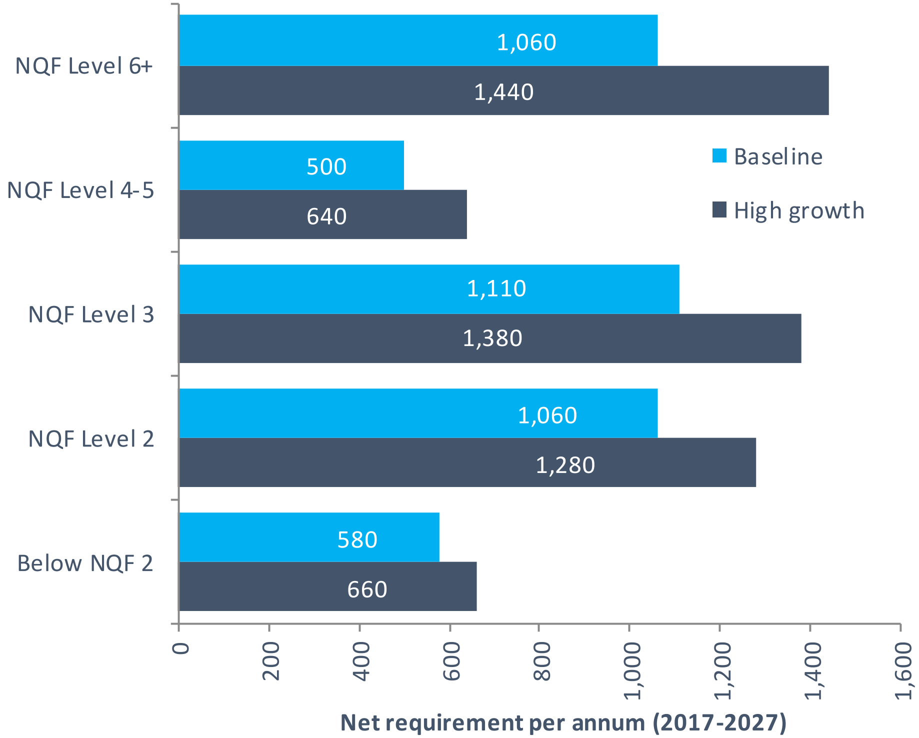
The percentage distribution of the net requirement is similar in both scenarios but absolute numbers vary significantly

Average annual net requirement by qualification (NQF) baseline versus high growth scenario, Growth Region (2017-2027)



25% of the net requirement **in the baseline scenario** require degree level qualifications.

Total **baseline** = 4,310 p.a.

Only 13% of the net requirement **under the baseline scenario** will require qualifications below NQF level 2

Source: UUEPC

Under the baseline scenario 25% of the net requirement is associated with qualifications at NQF level 6+ compared to 27% in the high growth scenario. However, in absolute terms there are 380 fewer people per annum demanded at NQF level 6+ under the baseline scenario. Similarly, the proportions of people demanded below NQF level 2 are relatively similar under baseline and high growth scenarios (13% and 12% respectively).

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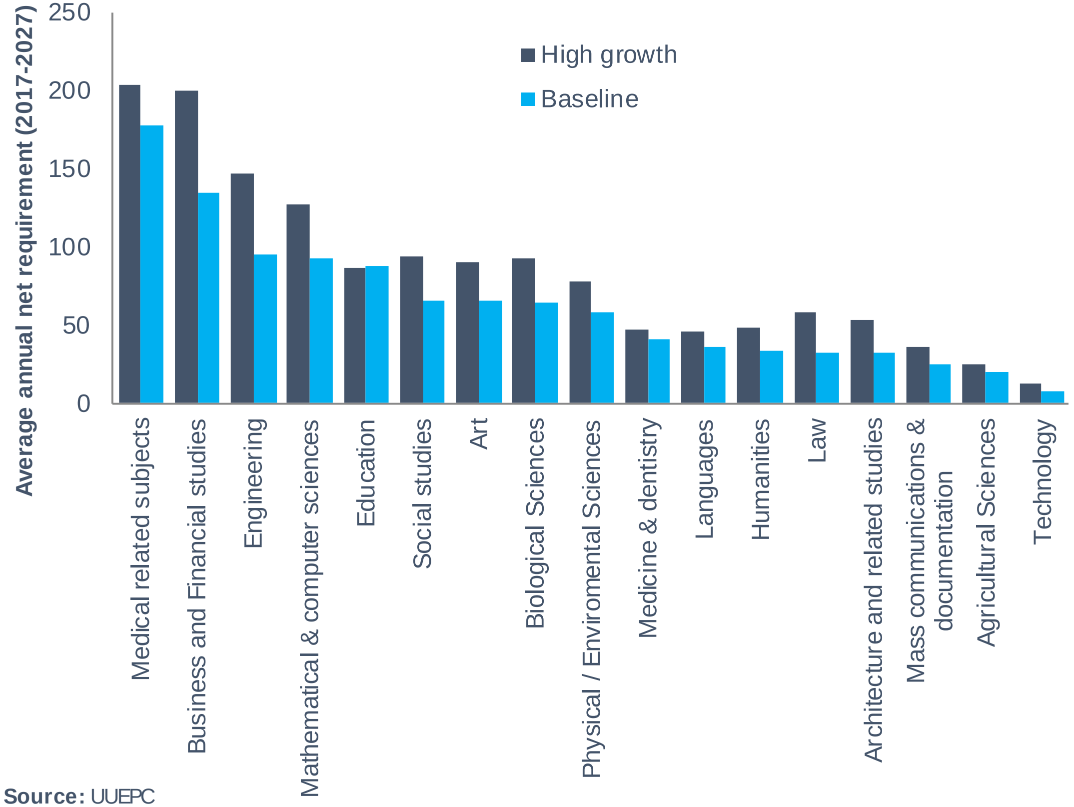
The largest NQF level 6+ subject in demand under baseline conditions is medical related subjects

Average annual net requirement by NQF level 6+, baseline versus high growth scenario, Growth Region (2017-2027)

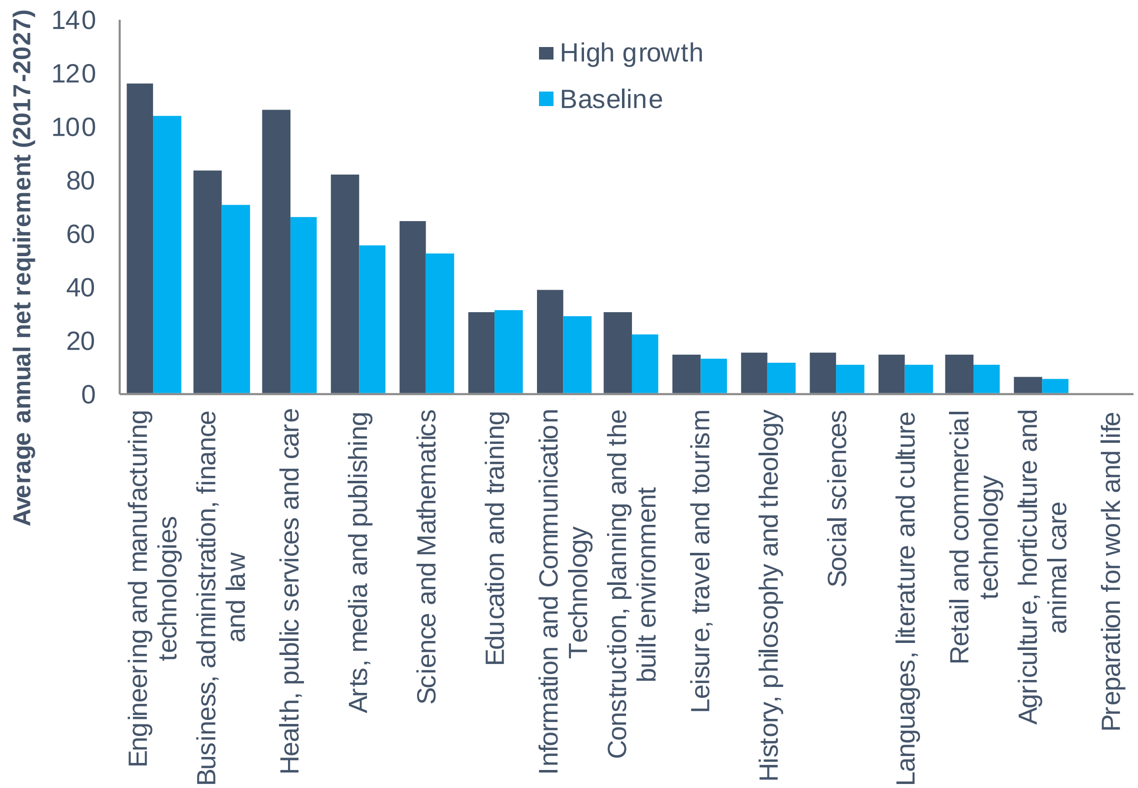


Source: UUEPC

Under baseline conditions, over the next decade the largest subject in demand for NQF level 6+ degree programmes and above is medical related studies representing 17% of the NQF level 6+ demand. This is followed by business and financial studies, representing a further 13% of total NQF level 6+ demand.

Engineering and manufacturing technologies is the most in-demand subject at NQF level 4-5 under baseline conditions

Average annual net requirement by NQF level 4-5, baseline versus high growth scenario, Growth Region (2017-2027)

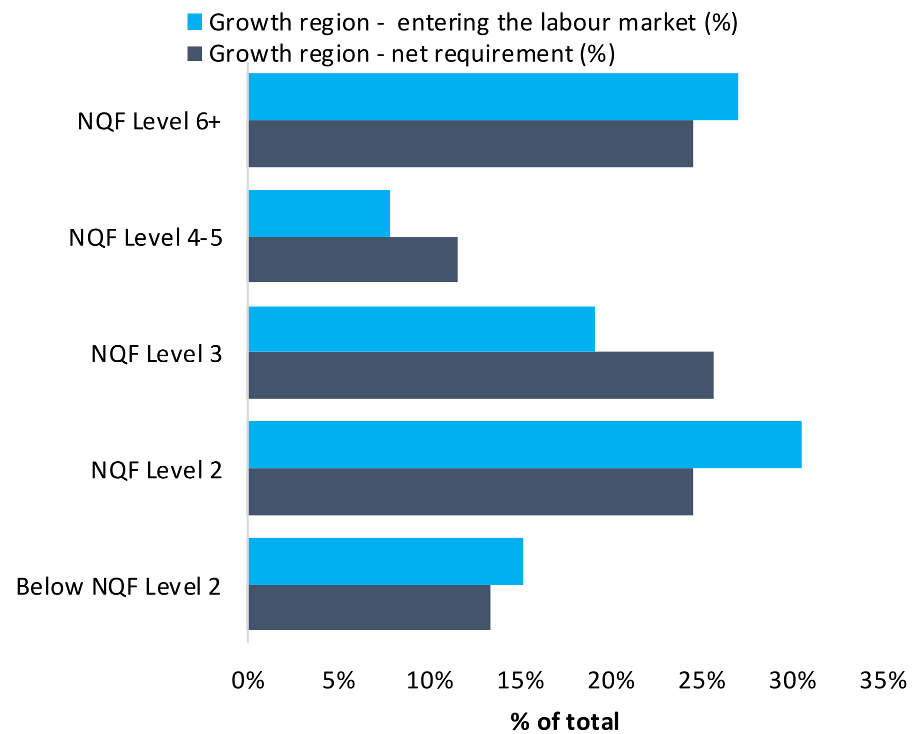


Source: UUEPC

Under baseline conditions, over the next decade the largest subject in demand for sub-degree programmes at NQF level 4-5 is engineering and manufacturing technologies at 100 persons per annum, representing 21% of the NQF level 4-5 demand. This is followed by business administration, finance and law (70 qualifiers per annum) and health public services and care (70 qualifiers per annum).

An oversupply of degree level and low qualifications but a shortage of sub-degree tertiary level qualifications

Net requirement versus qualification profile, Growth Region (2017-2027)



Source: UUEPC

Proportionately there is a marginal oversupply of degree level and above qualifiers entering into the labour market relative to the net requirement under baseline conditions, 27% and 25% respectively. There is also an undersupply of NQF level 3-5 qualifications entering the labour market, relative to the forecast demand, 27% and 37% respectively.

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The largest subject gap in current and future skills is in maths, computing, engineering and technology

The largest gaps in current and future skills exist in maths, computing, engineering and technology (-5 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.

It is important to remember that this analysis simply compares the percentage distribution of the demand and supply of skills.

Under baseline conditions, despite there being a clear difference in the subject distribution between the demand and supply, with a lower number of graduates demanded overall under baseline conditions there is unlikely to be a skills shortage in this area.

Distribution of current versus net requirement by NQF level 6+ and subject, Growth Region (2017-2027)

	% distribution of qualifiers (2015)	% distribution of net requirement (2017 - 2027)	p.p. difference
Medicine, denistry, subjects allied to medicine	22%	21%	1%
Biological, veterinary, agricultural & physical sciences	11%	13%	-2%
Maths, computing, engineering and technology	13%	18%	-5%
Social studies & law	13%	9%	3%
Business, administration, mass communication and documentation	15%	15%	0%
All other disciplines	26%	24%	3%

Source: NINIS

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Annex B: Maps

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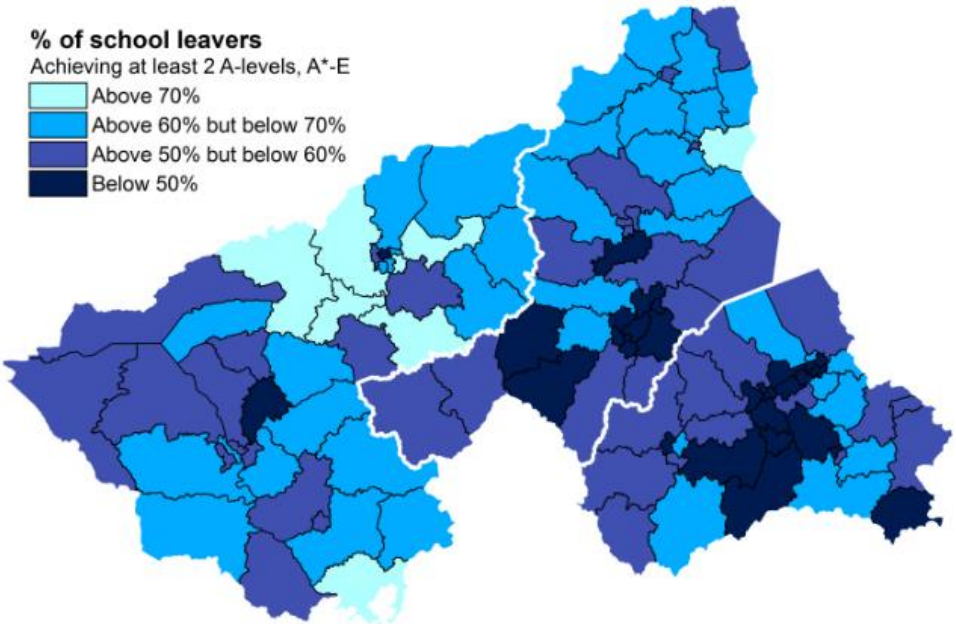
Annex B1: School leaver attainment by the Growth Region wards (2013/14-2015/16)

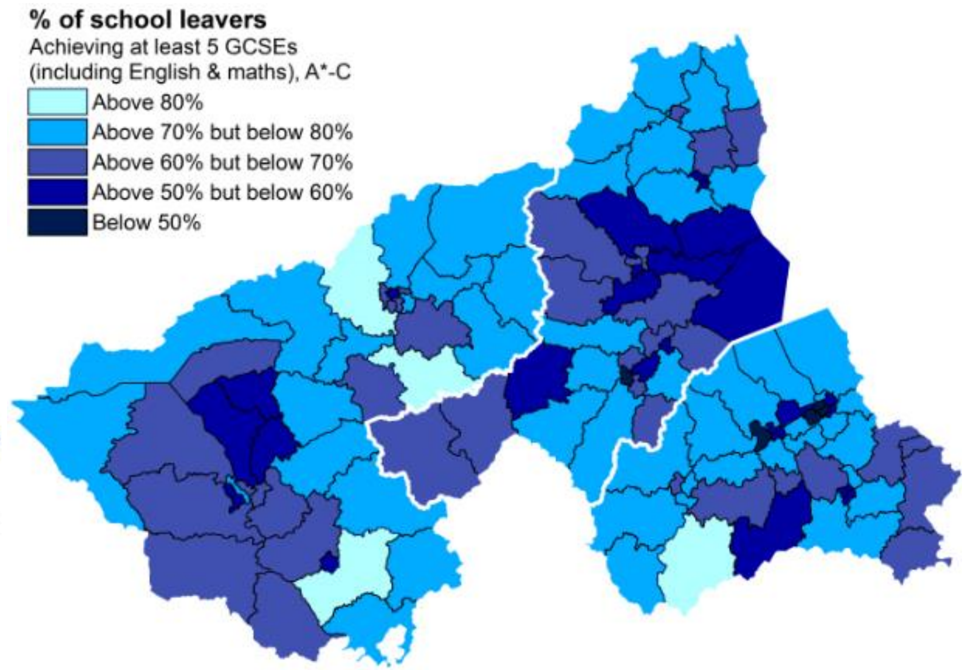
School leaver attainment by Growth Region wards (2013/14-2015/16)

School leavers (%) achieving 2+ A-levels A*-E, Growth Region wards (2013/14-2015/16)



Source: NI School Leavers Survey

School leavers (%) achieving 5+ GCSEs A*-C including English & maths, Growth Region wards (2013/14-2015/16)



Source: NI School Leavers Survey

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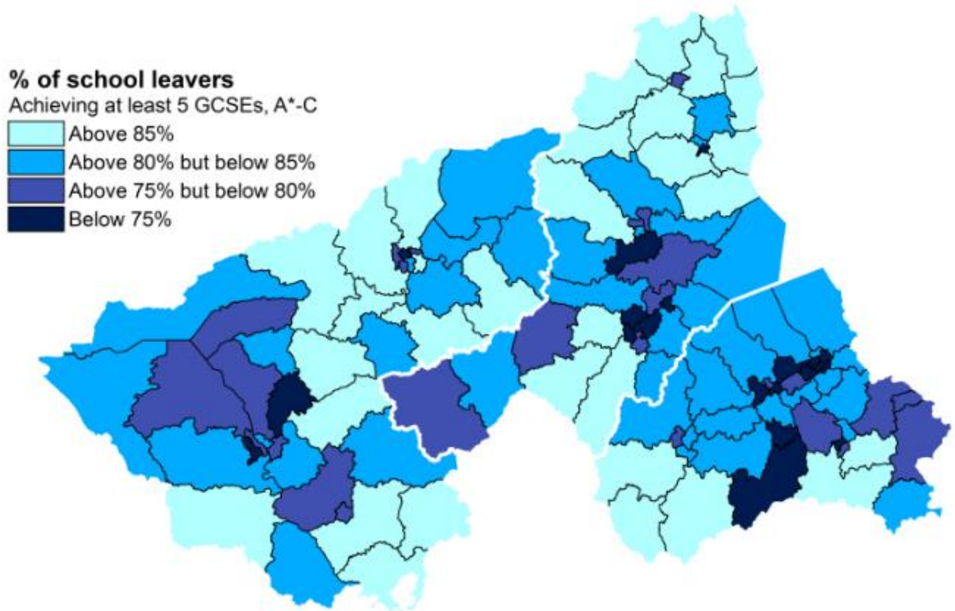
Annex B2: School leaver attainment by the Growth Region wards (2013/14-2015/16)

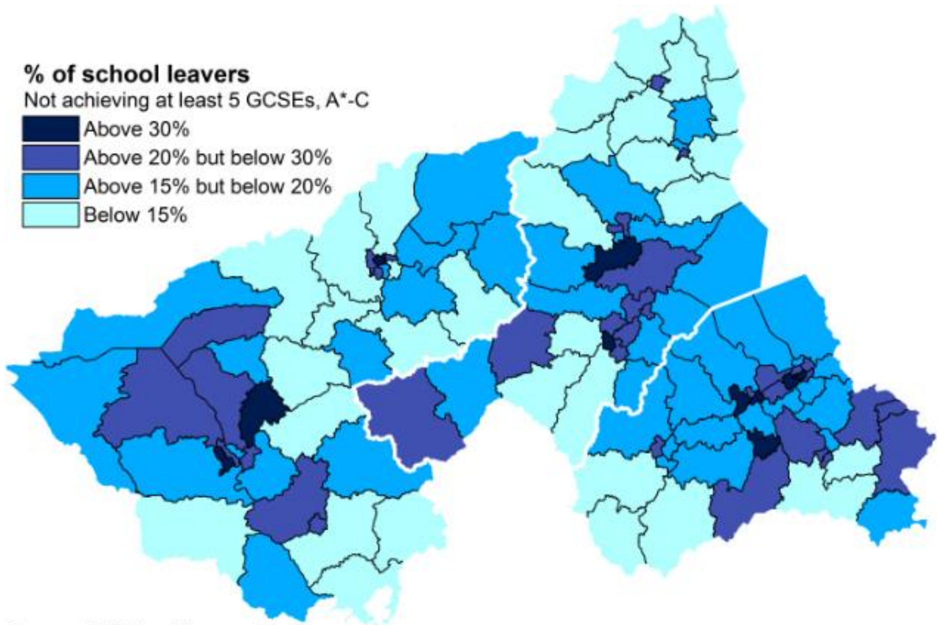
School leaver attainment by Growth Region wards (2013/14-2015/16)

School leavers (%) achieving 5+ GCSEs A*-C, Growth Region wards (2013/14-2015/16)



Source: NI School Leavers Survey

School leavers (%) not achieving 5+ GCSEs A*-C, Growth Region wards (2013/14-2015/16)

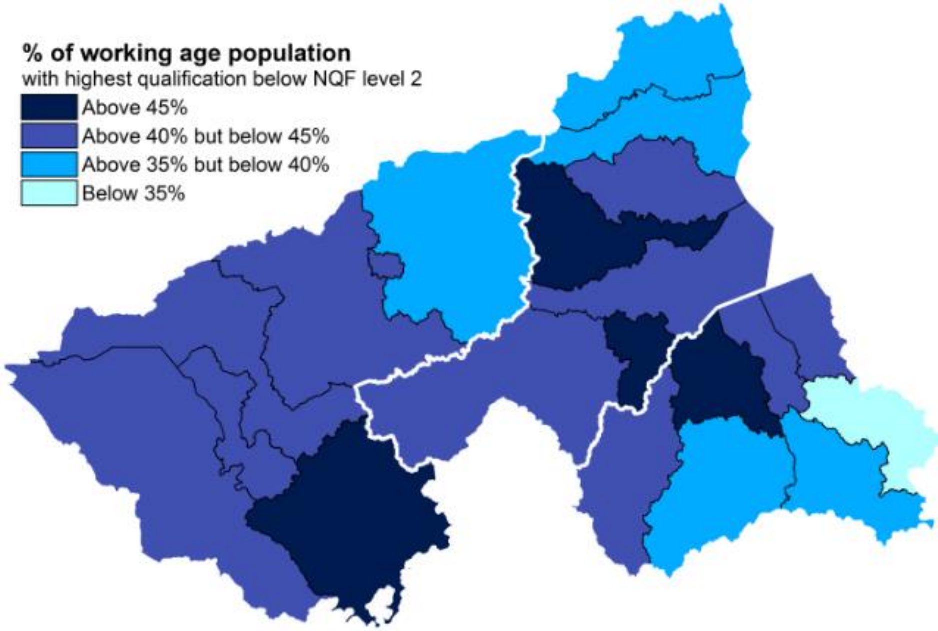


Source: NI School Leavers Survey

Annex B3: Highest qualification below NQF level 2 (2011) versus school leavers not entering education, employment or training (2013/14 to 2014/15), Growth Region DEA's/SOA's

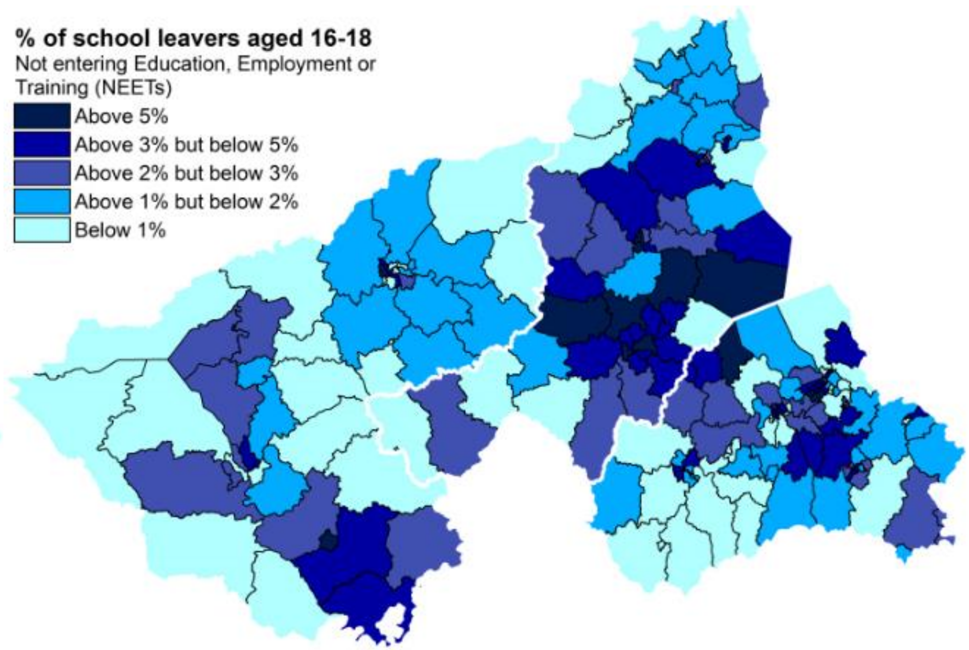
Highest qualification below NQF level 2 (2011) versus school leavers not entering education, employment or training (2013/14 to 2014/15), Growth Region DEA's/SOA's

Working age population (%) with NQF level 2 or below, Growth Region DEA's (2011)



Source: NISRA, Census 2011

School leavers (%) not entering education, employment or training, Growth Region SOA's (2013/14 to 2014/15)



Source: NI Multiple Deprivation Measure

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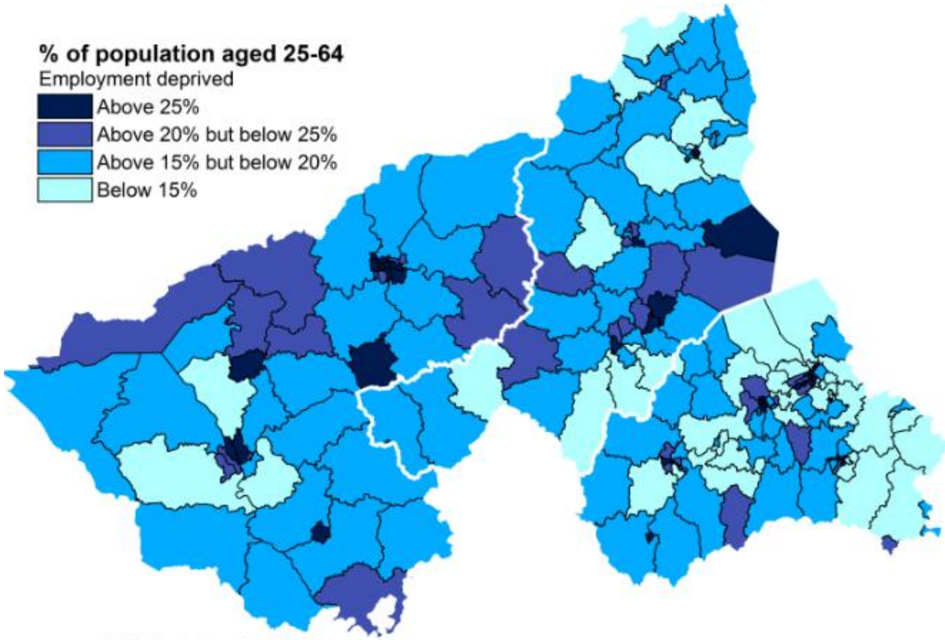
Annex B4: Employment deprivation (2015/16) versus population aged 18-21 not enrolled in a HE course at HE or FE, Growth Region SOA's (2012/13-2014/15)

Employment deprivation (2015/16) versus population aged 18-21 not enrolled in a HE course at HE or FE, Growth Region SOA's (2012/13-2014/15)

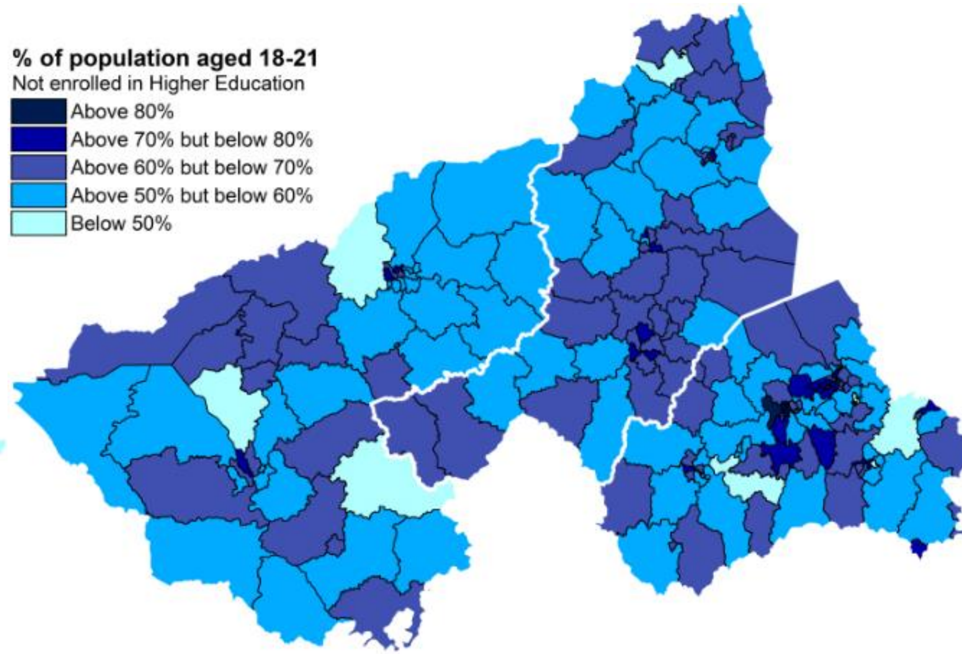
Proportion (%) of population aged 25-64 who are employment deprived, Growth Region SOA's (2015/16)



Source: NI Mulitple Deprivation Measure

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

Proportion (%) of population aged 18-21 not enrolled in a HE course at HE or FE, Growth Region SOA's (2012/13-2015/16)



Source: NI Multiple Deprivation Measure

Note: Not enrolled in higher education course in a higher or further education institution

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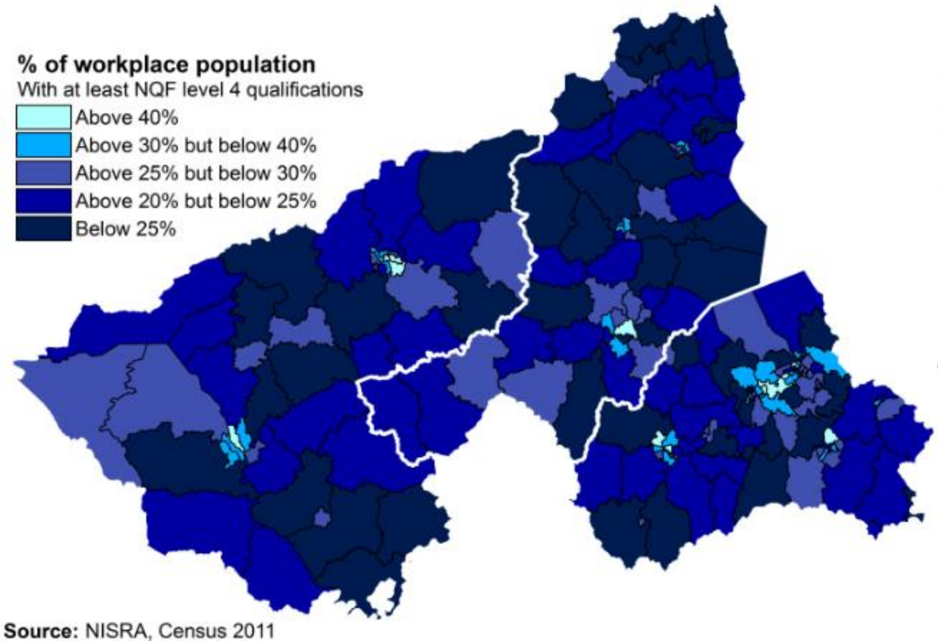
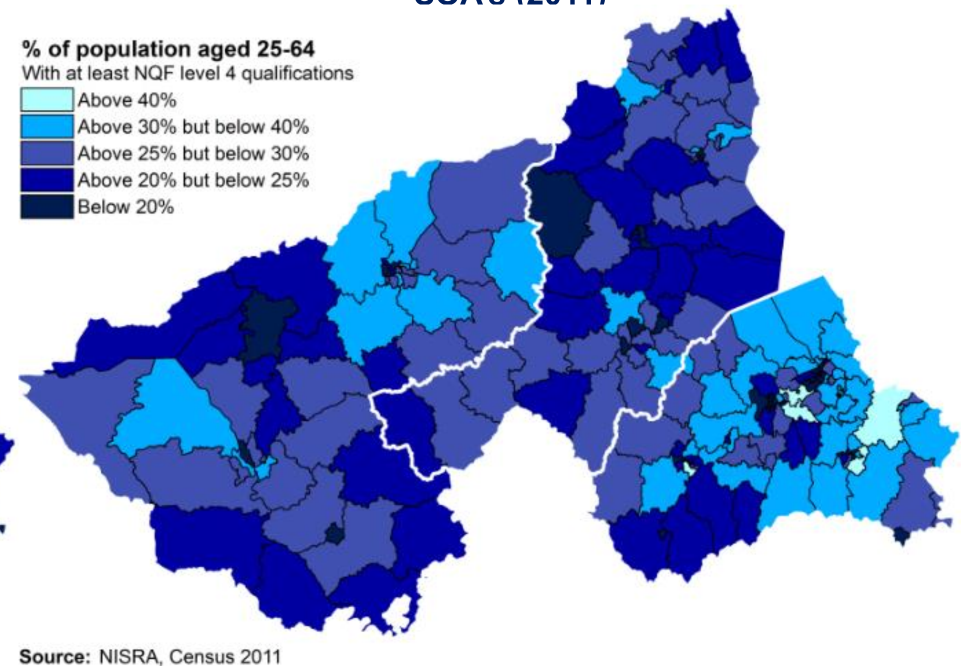
Annex B5: NQF level 4+ qualifications, workplace versus resident, Growth Region SOA's (2011)

NQF level 4+ qualifications, workplace versus resident, Growth Region SOA's (2011)

Proportion (%) of 16-74 population with NQF level 4+ qualifications (workplace based), Growth Region SOA's (2011)



Proportion (%) of 25-64 population with NQF level 4+ qualifications (resident based), Growth Region SOA's (2011)



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Annex C: Scatters

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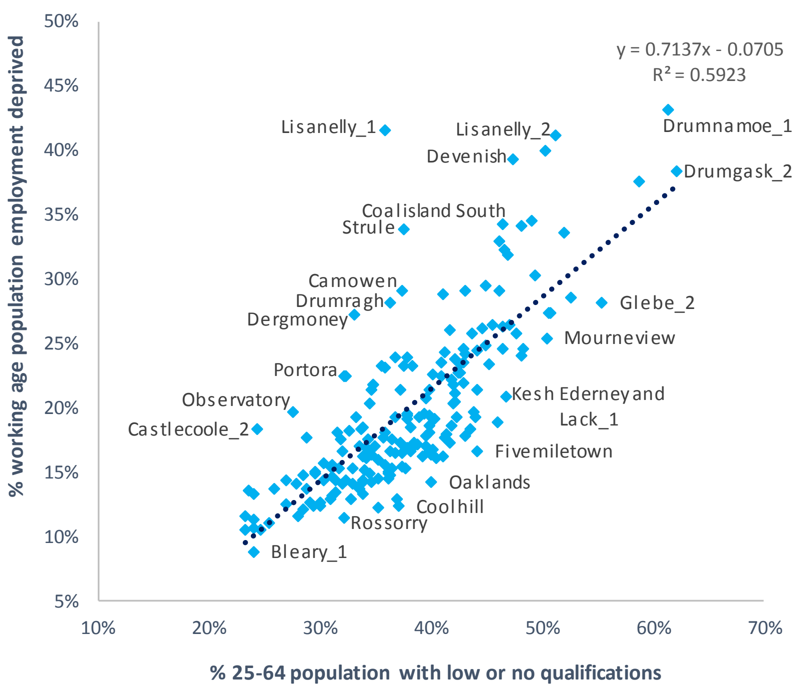
Annex C1: Employment deprivation (2015/16) versus low or no qualifications (2011), Growth Region and NI SOA's

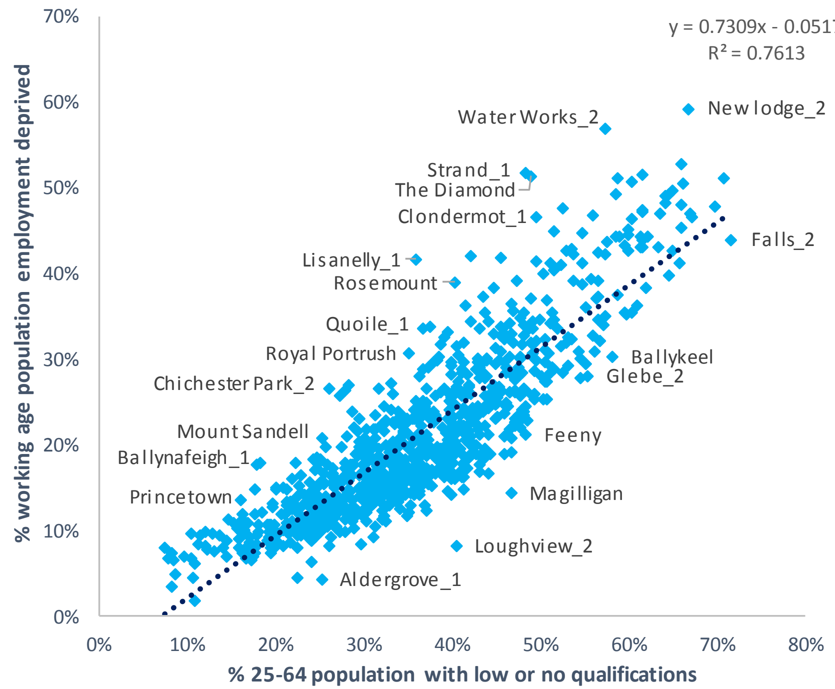
% working age population employment deprived (2015/16) versus % of 25-64 population with low or no qualifications (2011), Growth Region SOA's



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

% working age population employment deprived (2015/16) versus % of 25-64 population with low or no qualifications (2011), NI SOA's



Source: NI Multiple Deprivation Measure

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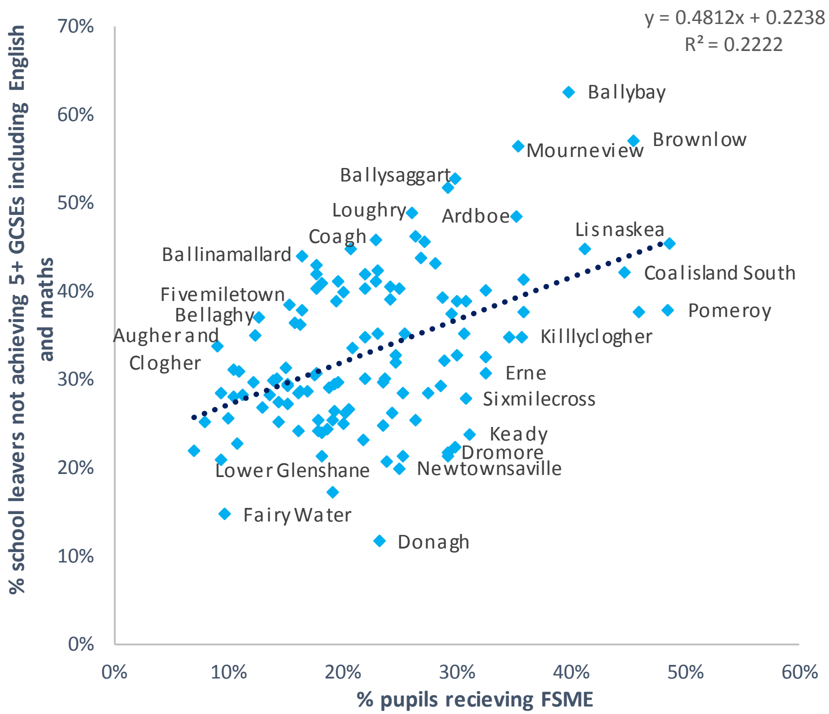
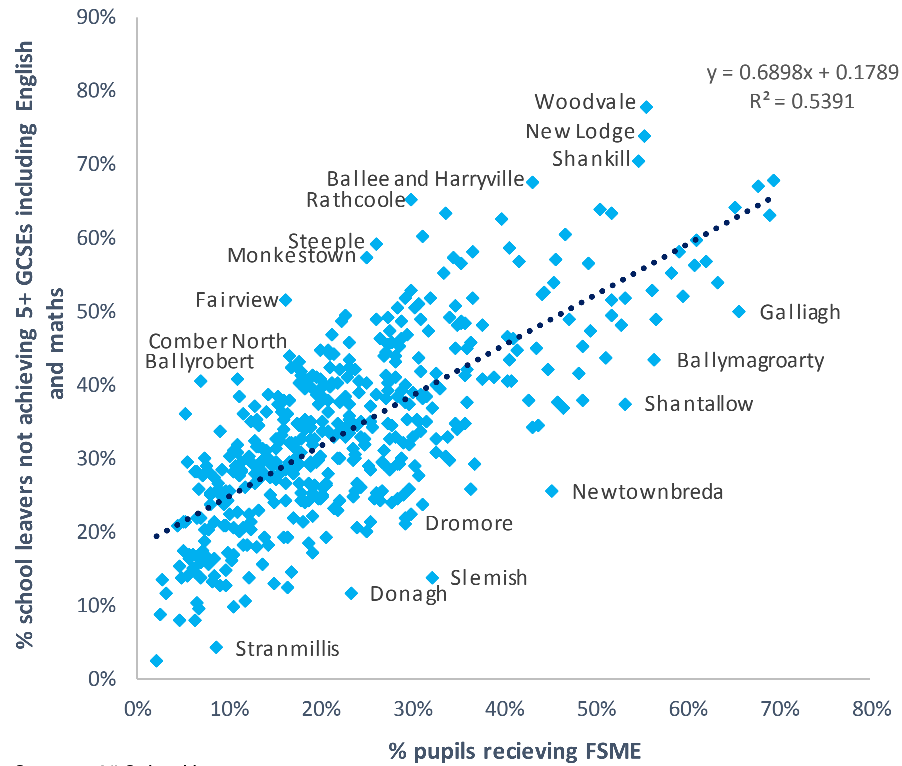
Annex C2: Educational attainment (2013/14-2015-16) versus proportion of pupils entitles to free school meals (2013/14-2015/16), Growth Region and NI wards

% school leavers not achieving 5+ GCSEs including English and maths (2013/14-2015/16) versus % of pupils receiving FSME (2013/14-2015/16), Growth Region Wards



Source: NI School leavers survey

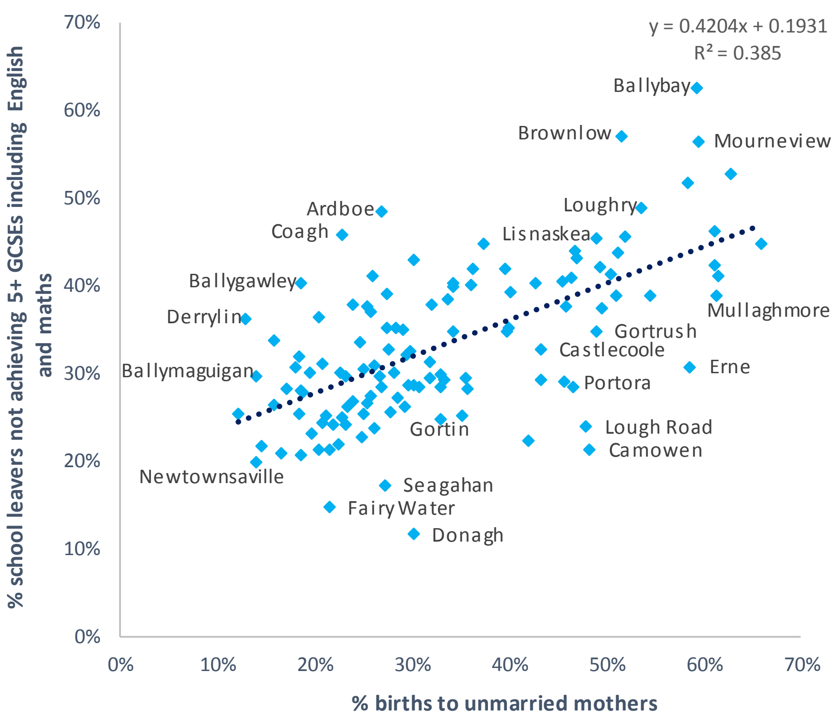
% school leavers not achieving 5+ GCSEs including English and maths (2013/14-2015/16) versus % of pupils receiving FSME (2013/14-2015/16), NI Wards



Source: NI School leavers survey

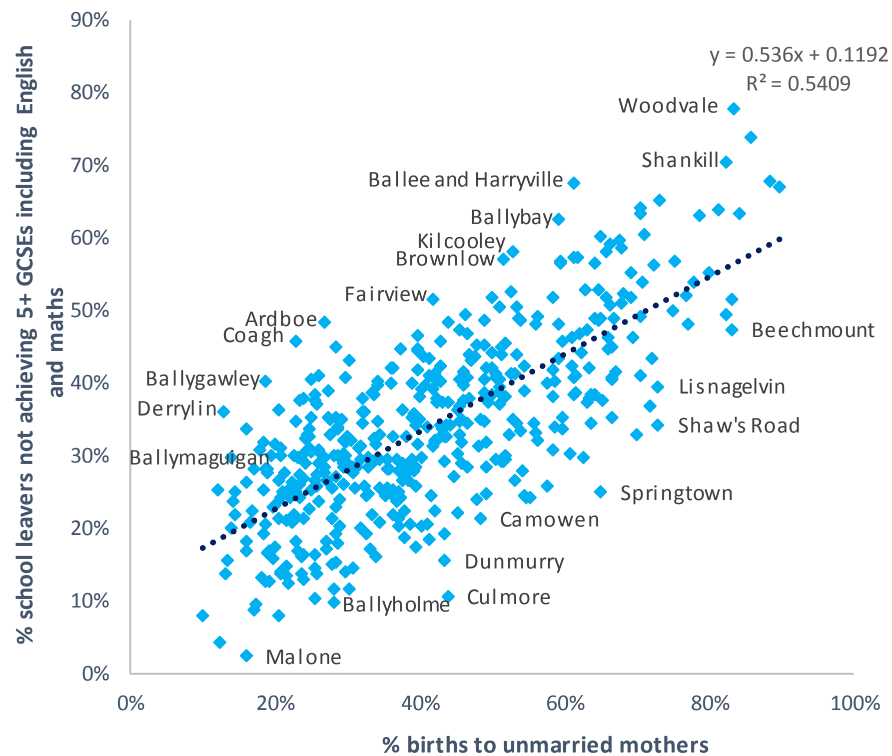
Annex C3: Educational attainment (2013/14-2015/16) versus proportion of births to unmarried mothers (2014-15), Growth Region and NI wards

% school leavers not achieving 5+ GCSEs including English and maths (2013/14-2015/16) versus % of births to unmarried mothers (2014-2015), Growth Region Wards



Source: NI School leavers survey

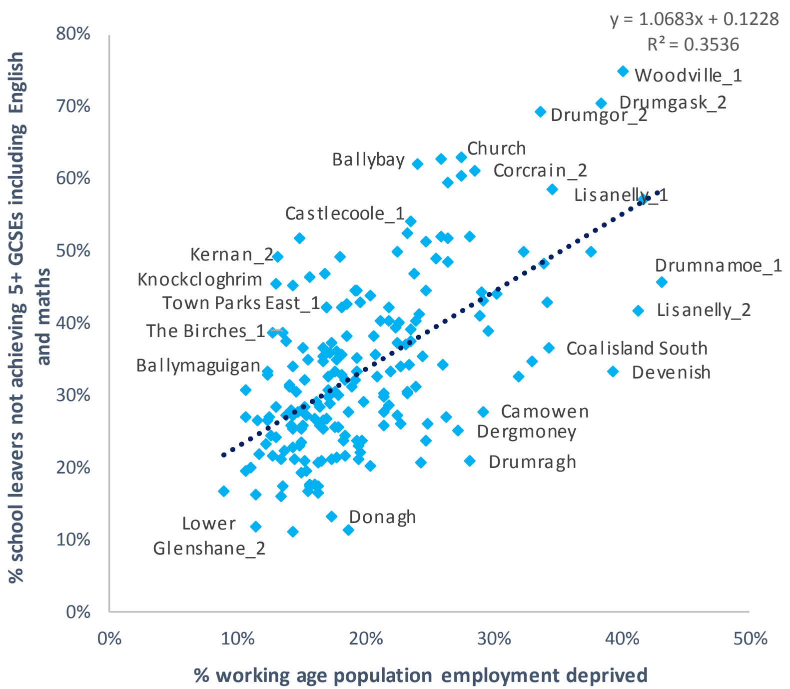
% school leavers not achieving 5+ GCSEs including English and maths (2013/14-2015/16) versus % of births to unmarried mothers (2014-2015), NI Wards



Source: NI School leavers survey

Annex C4: Educational attainment (2015/16) versus employment deprivation (2015-16), Growth Region and NI SOA's

% school leavers not achieving 5+ GCSEs including English and maths (2015/16) versus % of working age population employment deprived (2015/16), Growth Region SOA's



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

% school leavers not achieving 5+ GCSEs including English and maths (2015/16) versus % of working age population employment deprived (2015/16), NI SOA's

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

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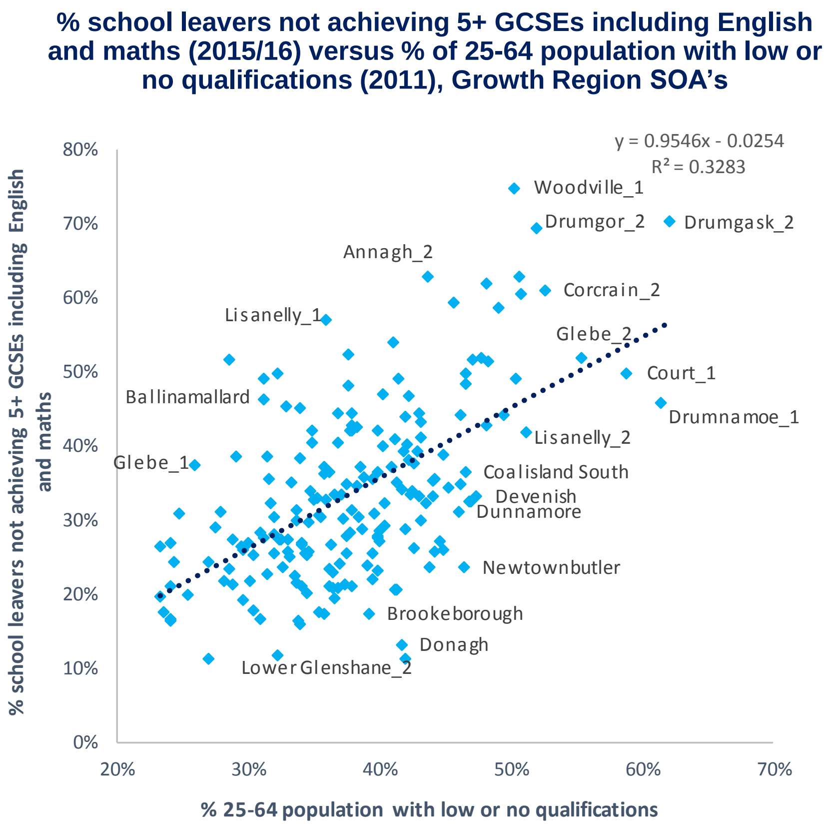
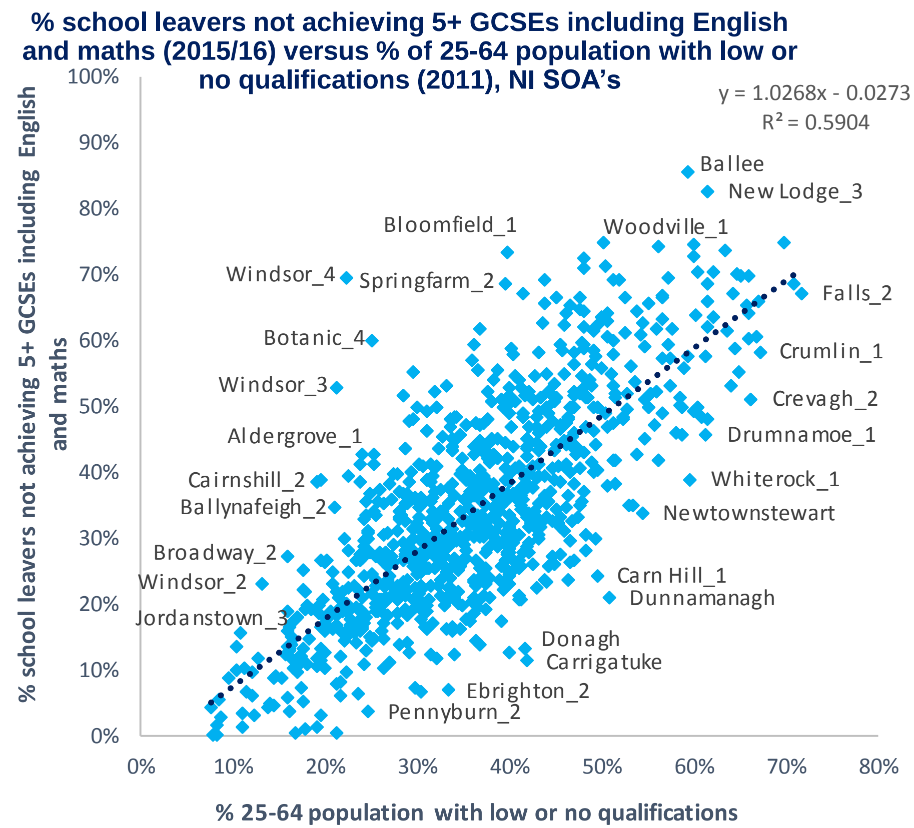
Annex C5: Educational attainment (2015/16) and adult population with low or no qualifications (2011), Growth Region and NI SOA's



Source: NI Multiple Deprivation Measure



Source: NI Multiple Deprivation Measure

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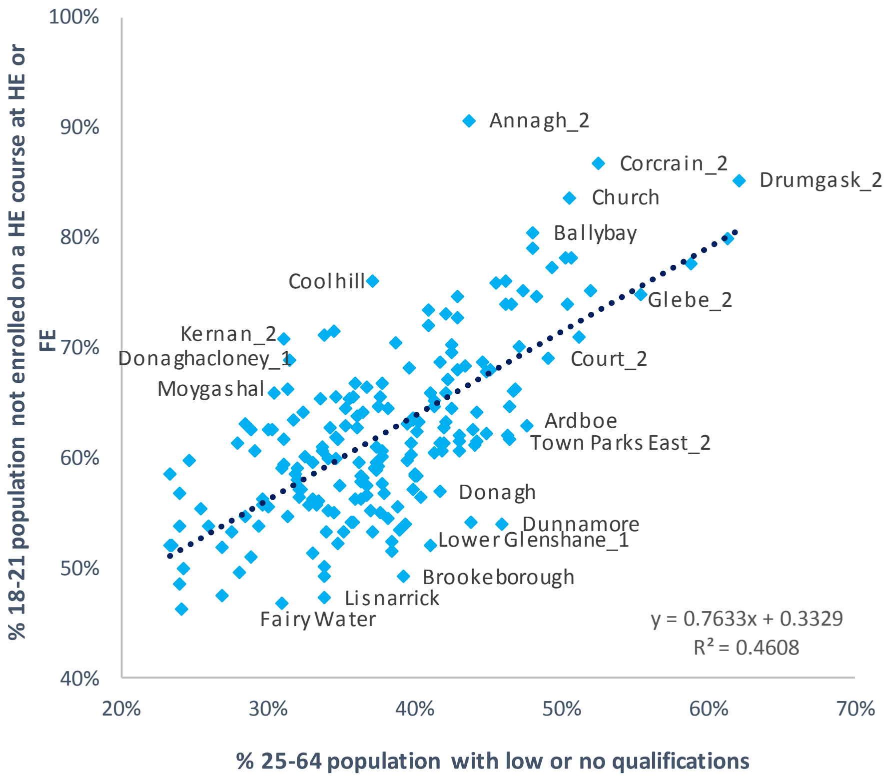
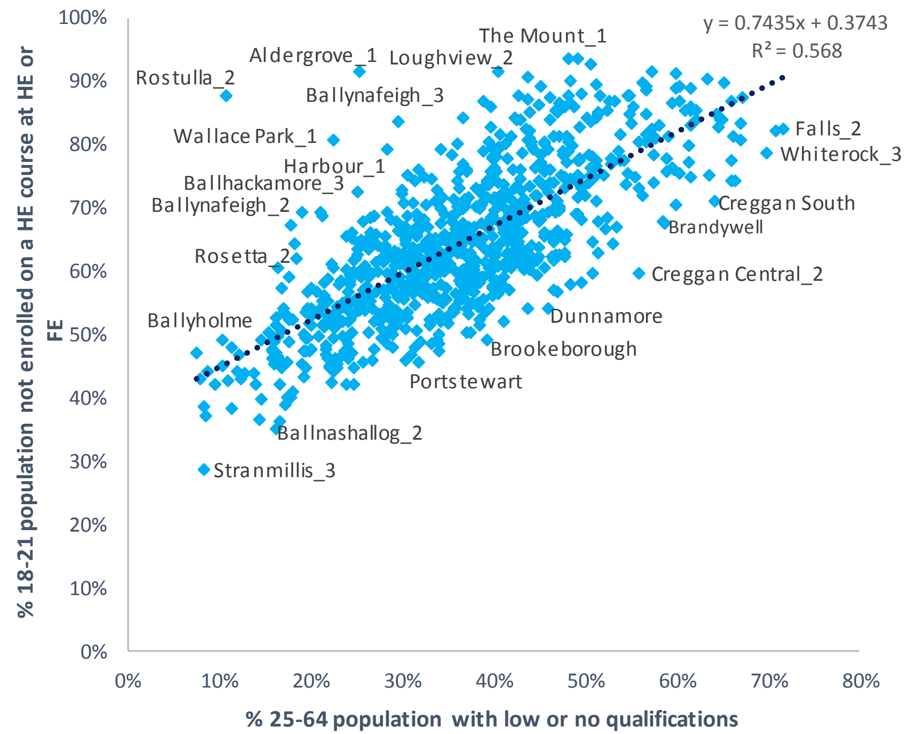
Annex C6: Tertiary education participation (2015/16) versus adult population with low or no skills (2011), Growth Region and NI SOA's

% 18-21 population not enrolled in HE course at HE or FE (2015/16) versus % of 25-64 population with low or no qualifications (2011), Growth Region SOA's



Source: NI Multiple Deprivation Measure

% 18-21 population not enrolled in HE course at HE or FE (2015/16) versus % of 25-64 population with low or no qualifications (2011), NI SOA's



Source: NI Multiple Deprivation Measure

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Annex D: DEA Net requirement

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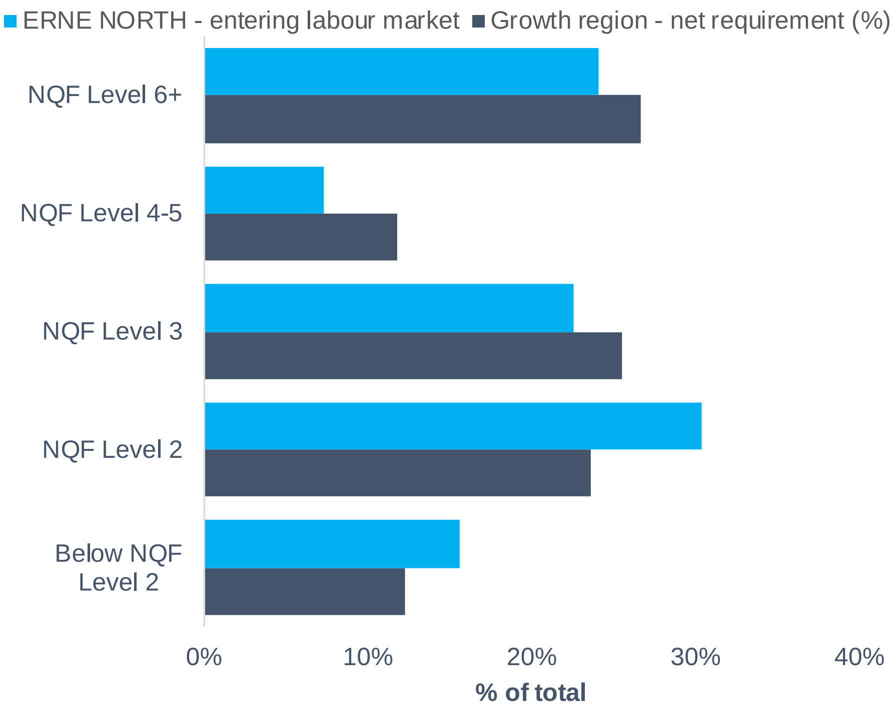
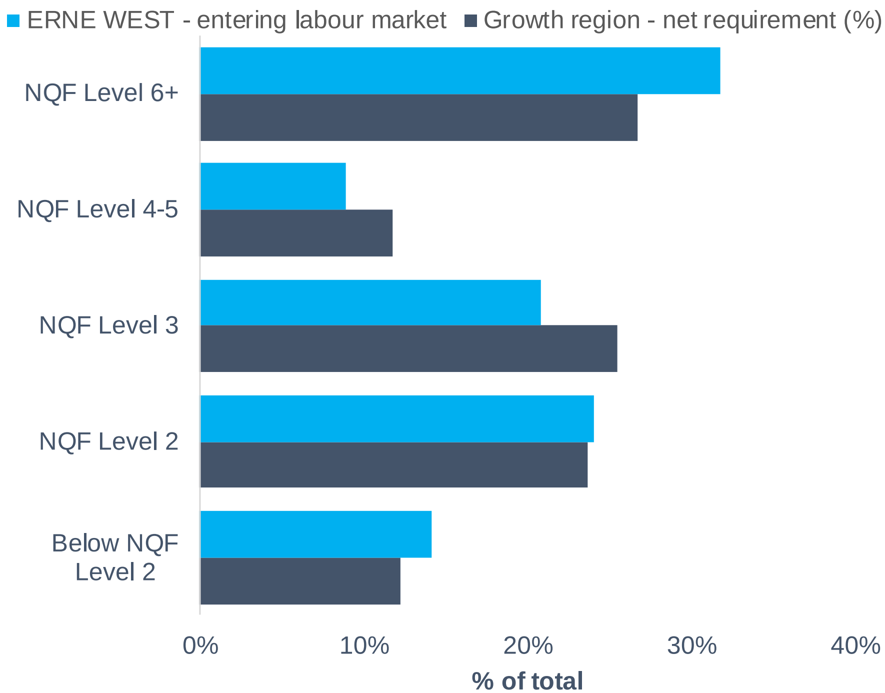
Annex D1: DEA Net Requirement (Erne North and Erne West)

Net requirement (Growth region) vs skills profile of labour market entrants (Erne North), 2017-27



Source: UUEPC

Net requirement (Growth region) vs skills profile of labour market entrants (Erne West), 2017-27



Source: UUEPC

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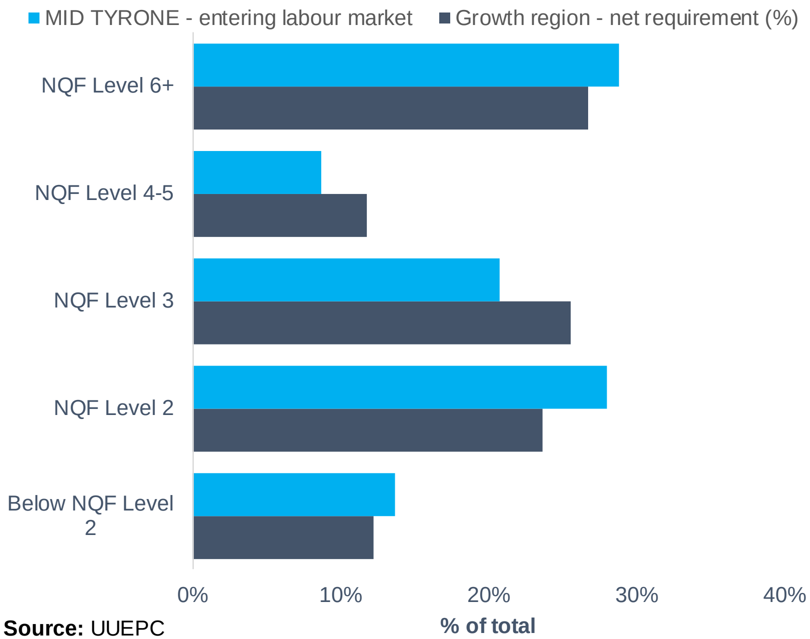
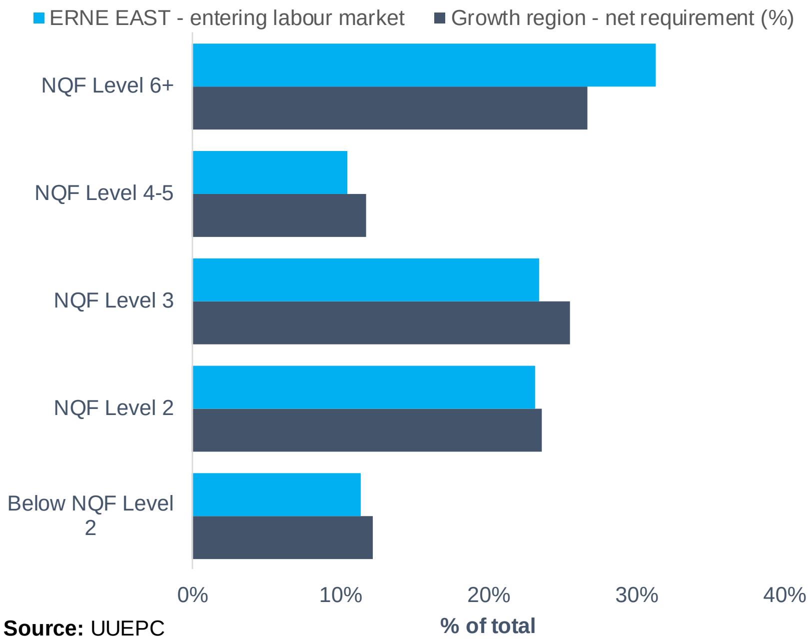
Annex D2: DEA Net Requirement (Mid Tyrone and Erne East)

Net requirement (Growth Region) vs skills profile of labour market entrants (Mid Tyrone) (2017-2027)



Source: UUEPC

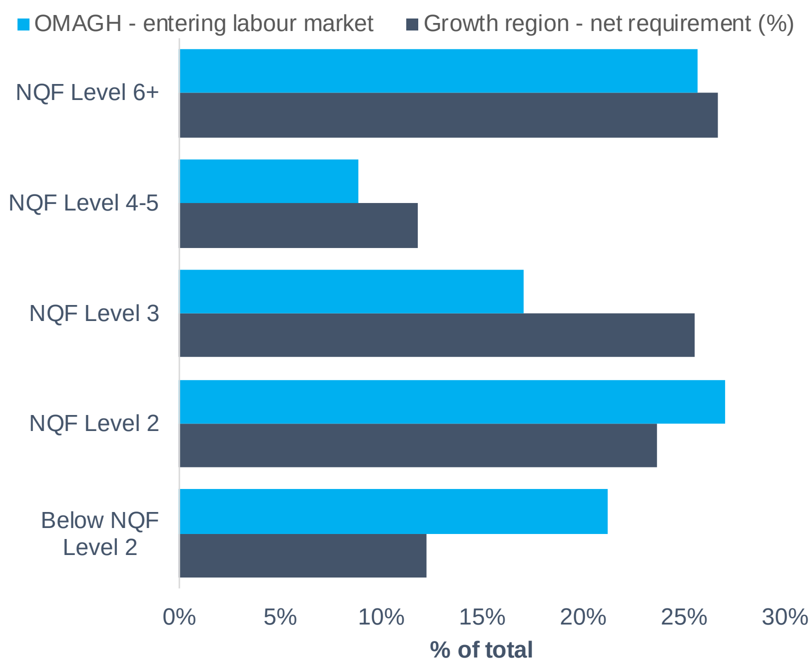
Net requirement (Growth Region) vs skills profile of labour market entrants (Erne East) (2017-2027)



Source: UUEPC

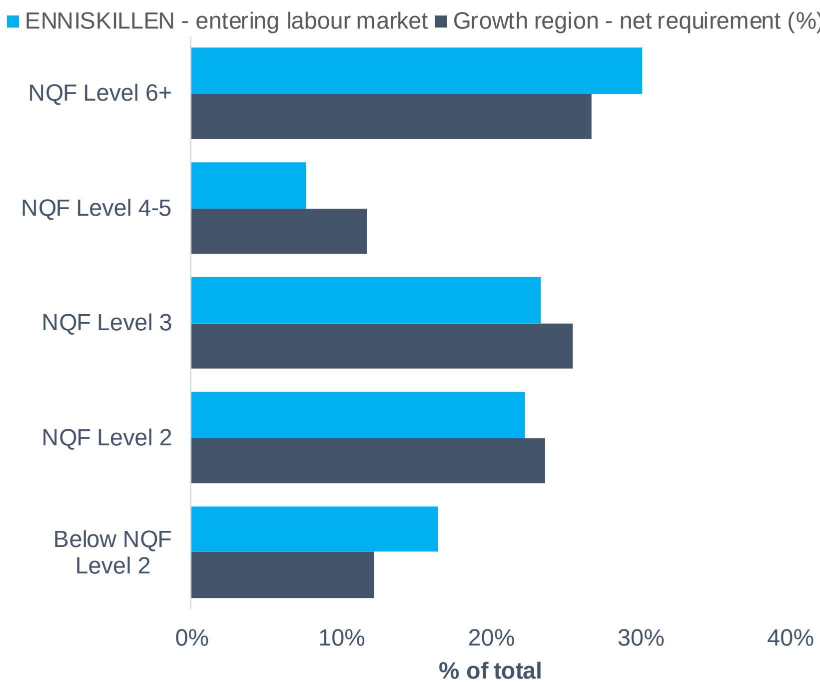
Annex D3: DEA Net Requirement (Omagh and Eniskillen)

Net requirement (Growth Region) vs skills profile of labour market entrants (Omagh) (2017-2027)



Source: UUEPC

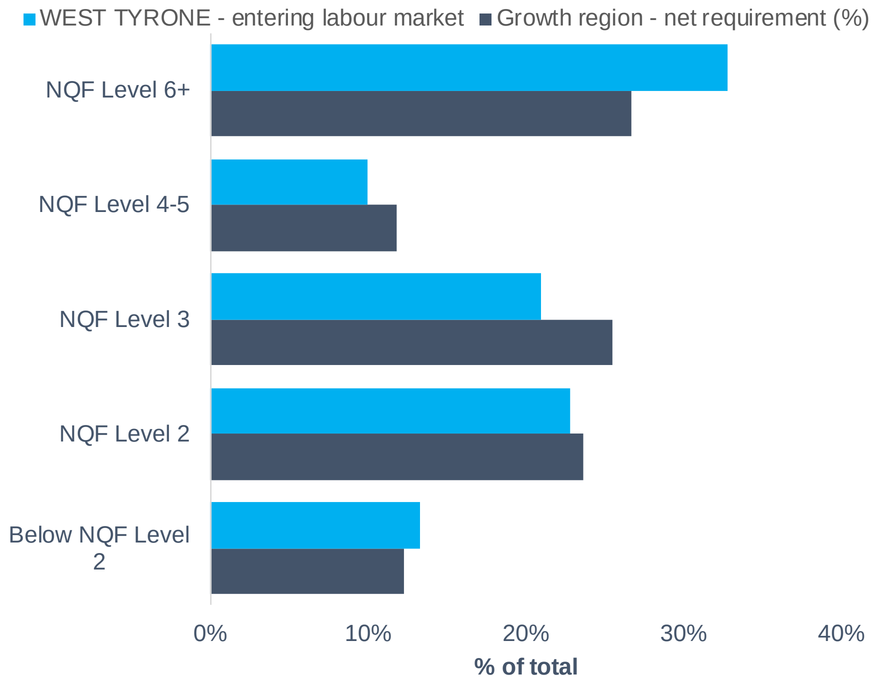
Net requirement (Growth Region) vs skills profile of labour market entrants (Enniskillen) (2017-2027)



Source: UUEPC

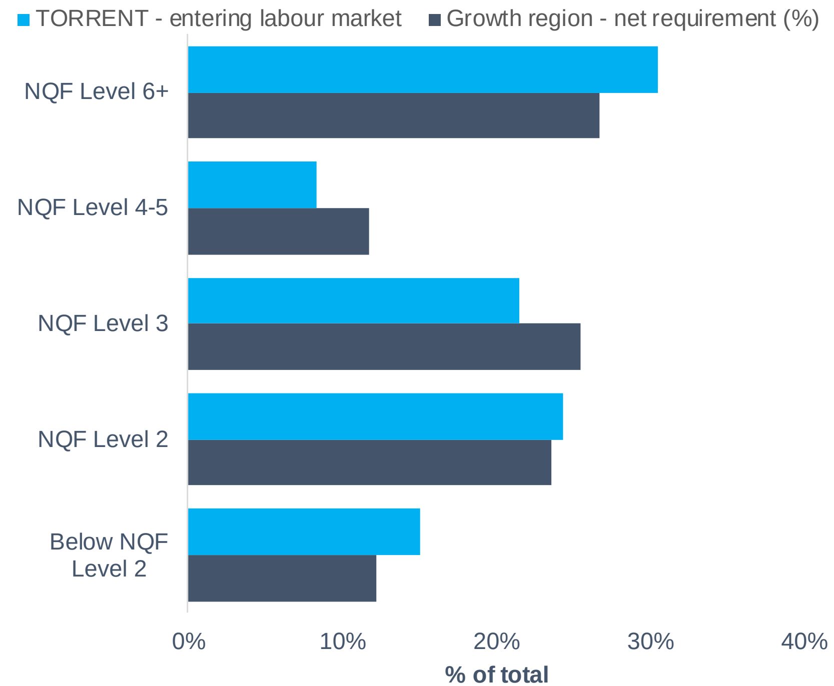
Annex D4: DEA Net Requirement (West Tyrone and Torrent)

Net requirement (Growth Region) vs skills profile of labour market entrants (West Tyrone) (2017-2027)



Source: UUEPC

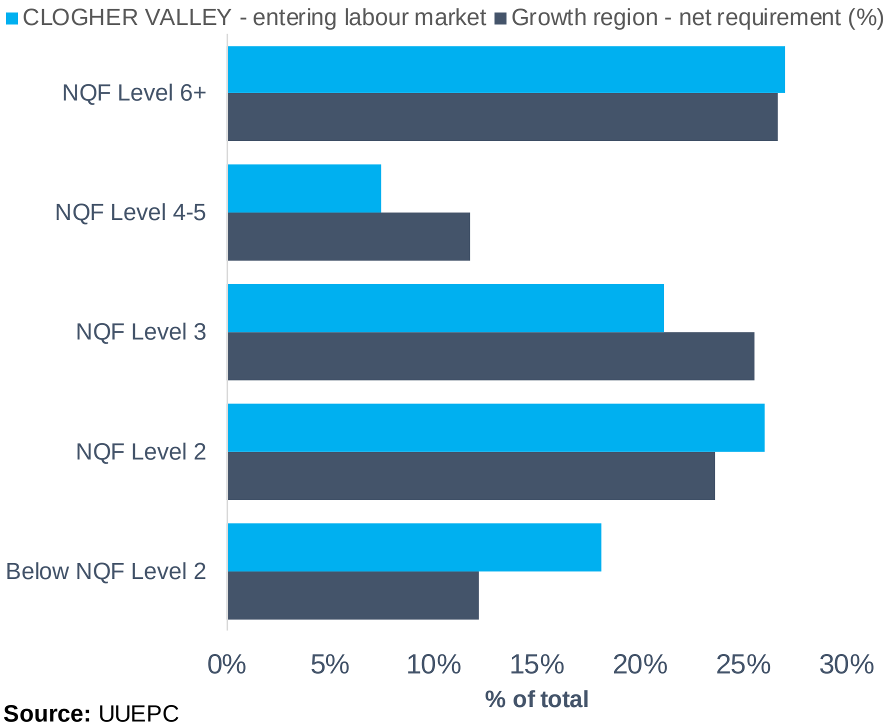
Net requirement (Growth Region) vs skills profile of labour market entrants (Torrent) (2017-2027)



Source: UUEPC

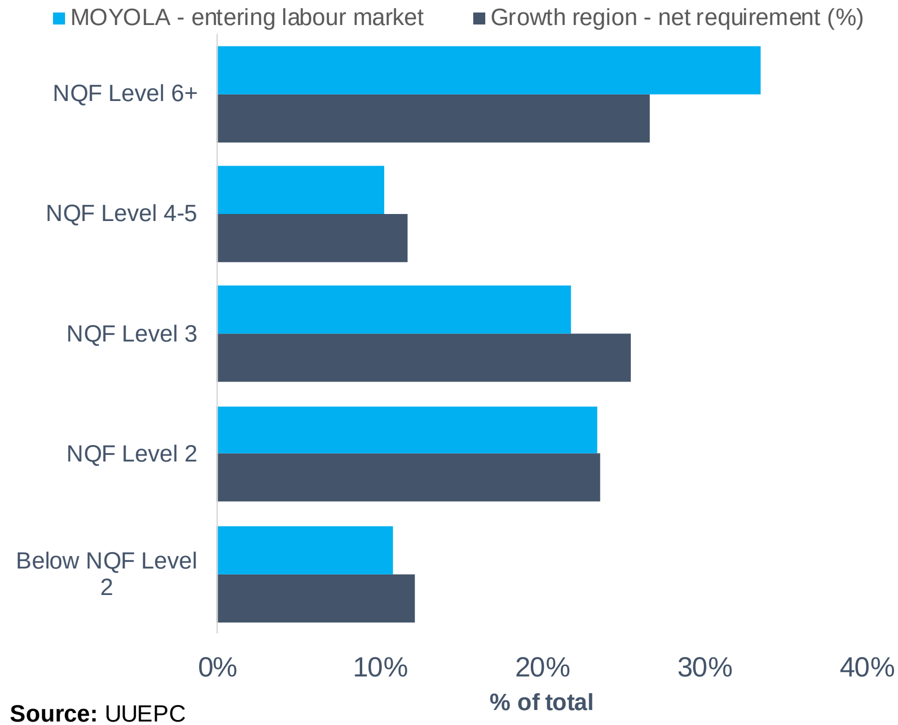
Annex D5: DEA Net Requirement (Clogher Valley and Moyola)

Net requirement (Growth Region) vs skills profile of labour market entrants (Clogher Valley) (2017-2027)



Source: UUEPC

Net requirement (Growth Region) vs skills profile of labour market entrants (Moyola) (2017-2027)



Source: UUEPC

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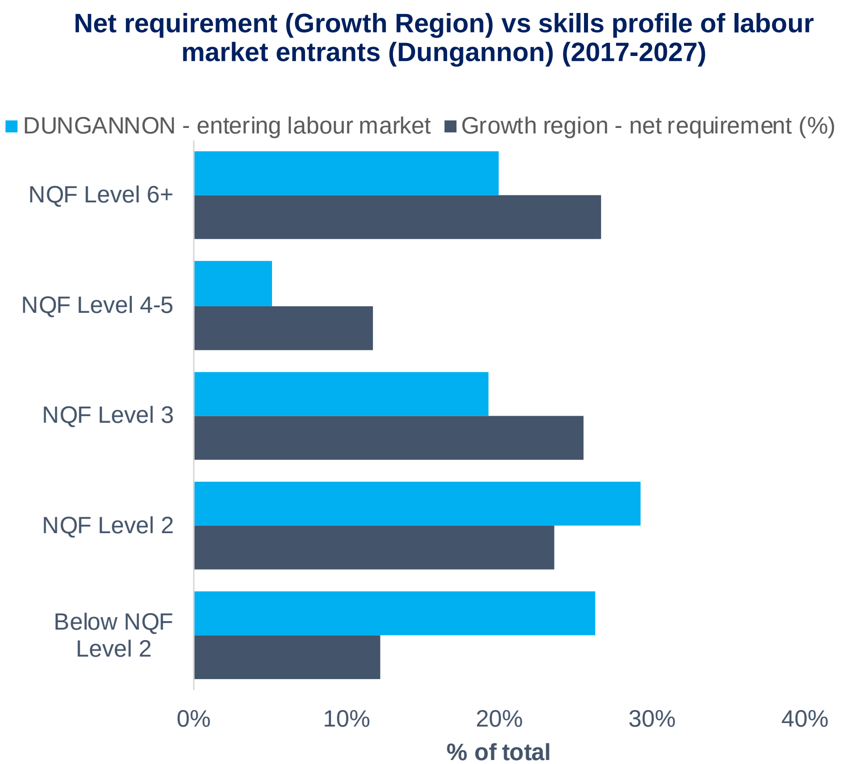
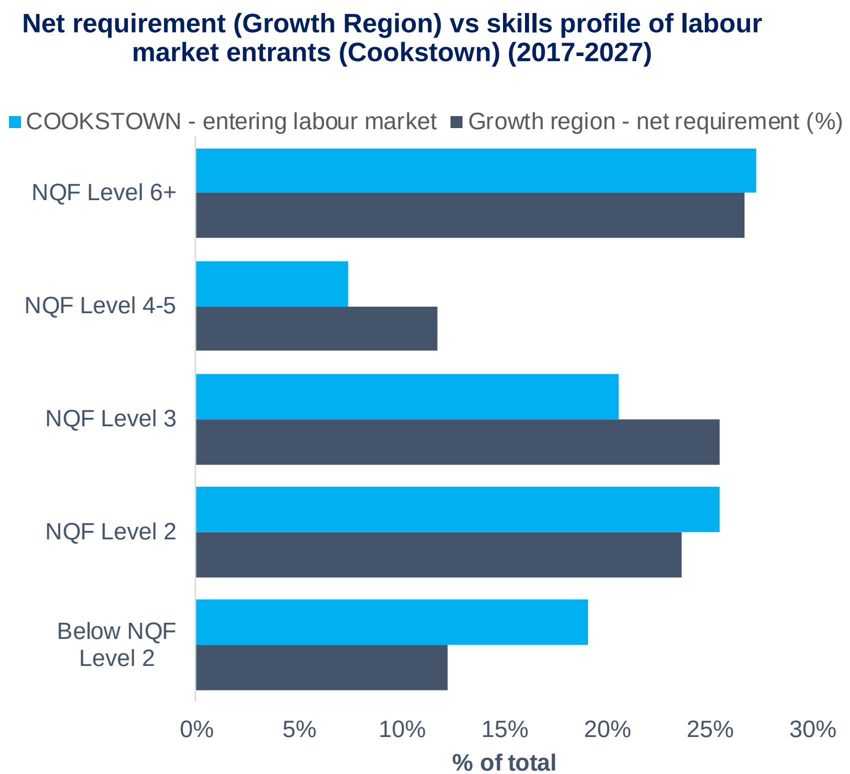
Annex D6: DEA Net Requirement (Dungannon and Cookstown)



Source: UUEPC



Source: UUEPC

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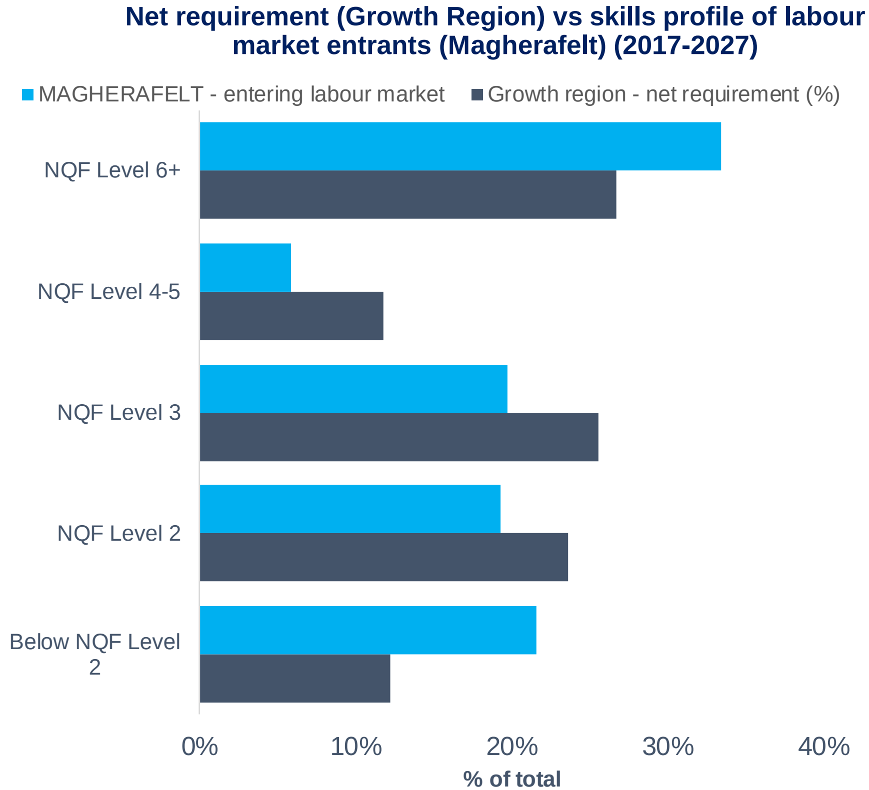
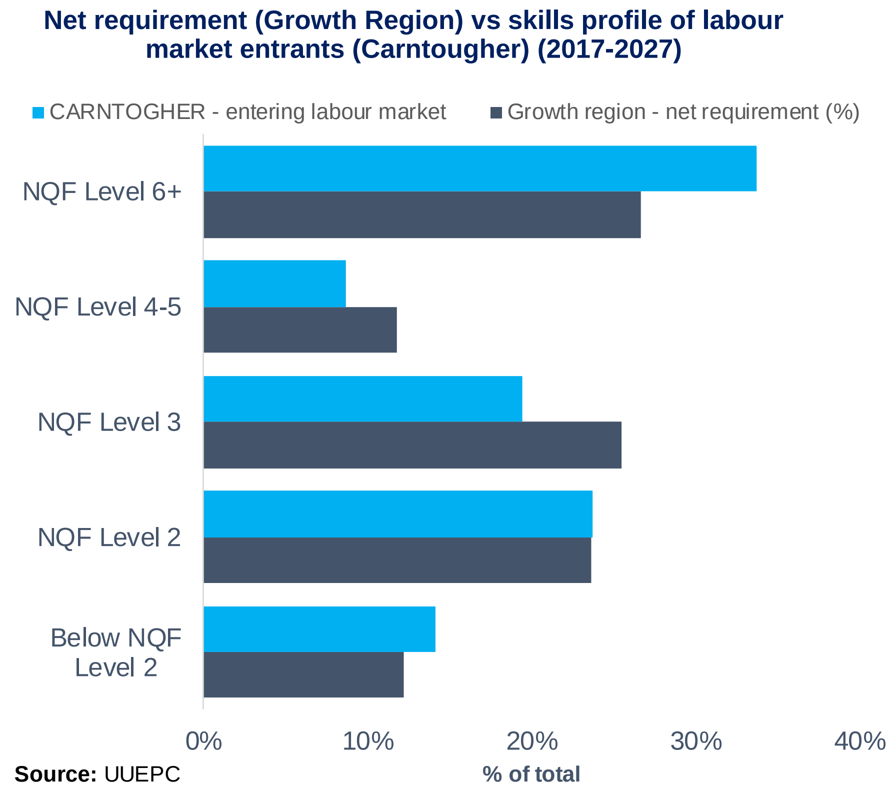
Annex D6: DEA Net Requirement (Magherafelt and Carntougher)

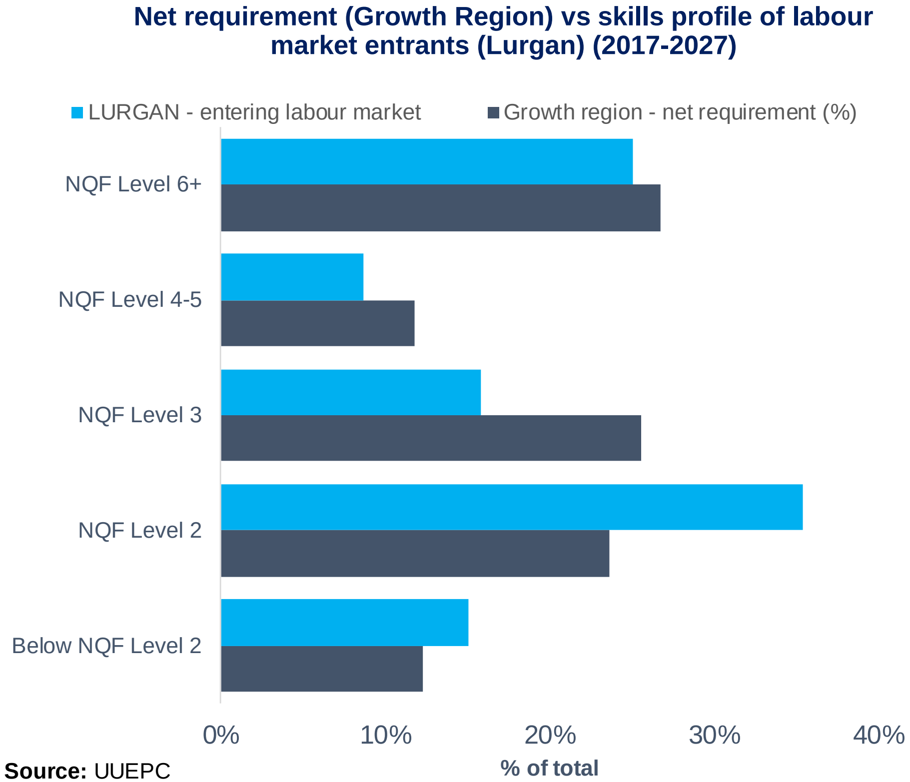


Source: UUEPC

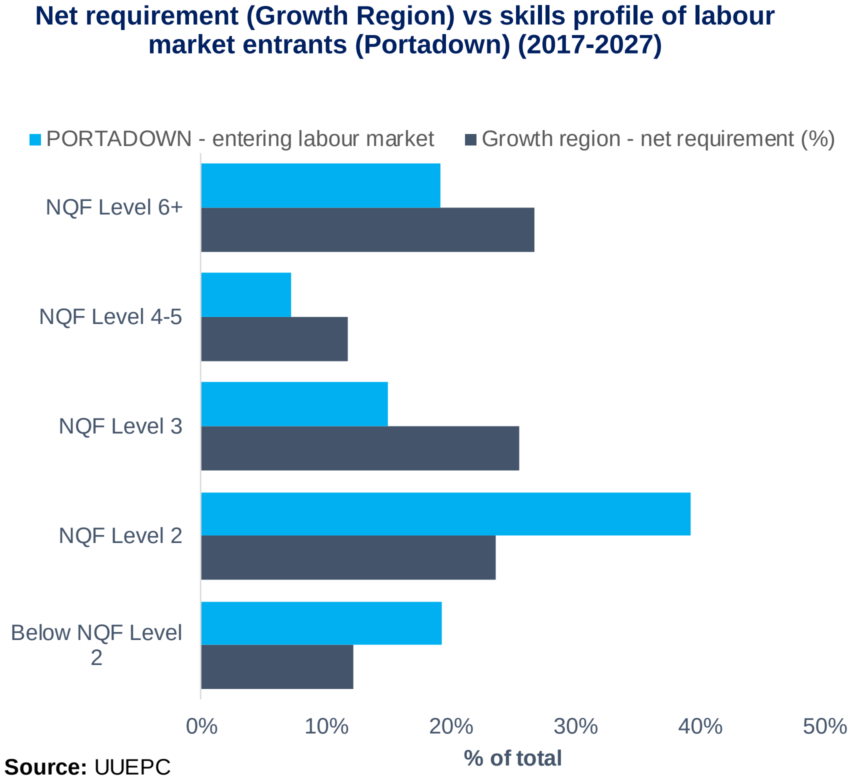


Source: UUEPC

Annex D6: DEA Net Requirement (Lurgan and Portadown)



Source: UUEPC



Source: UUEPC

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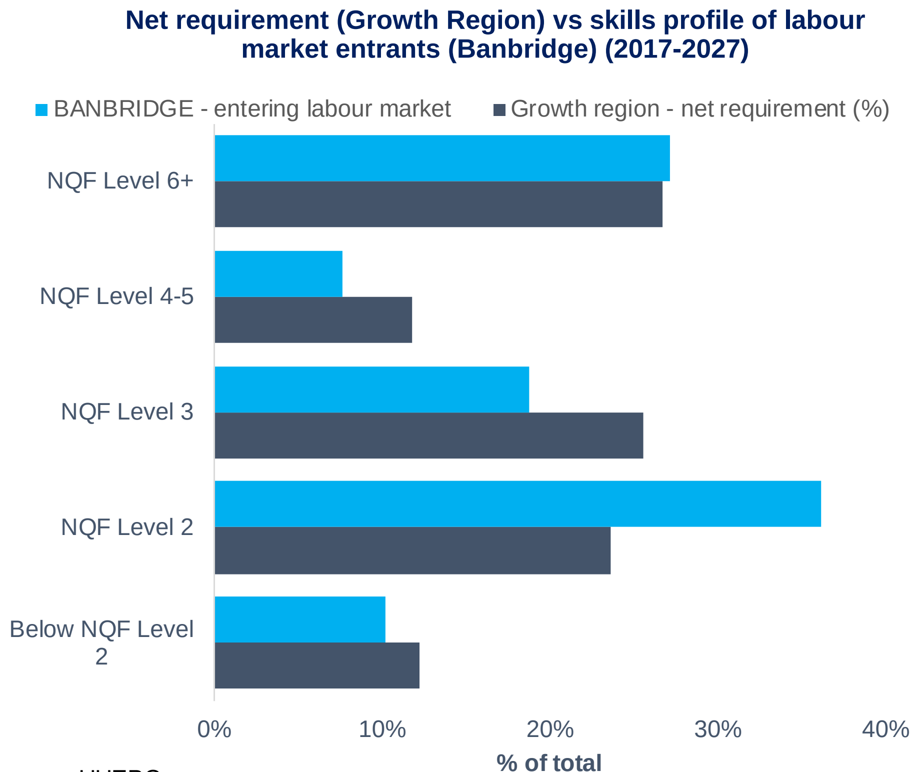
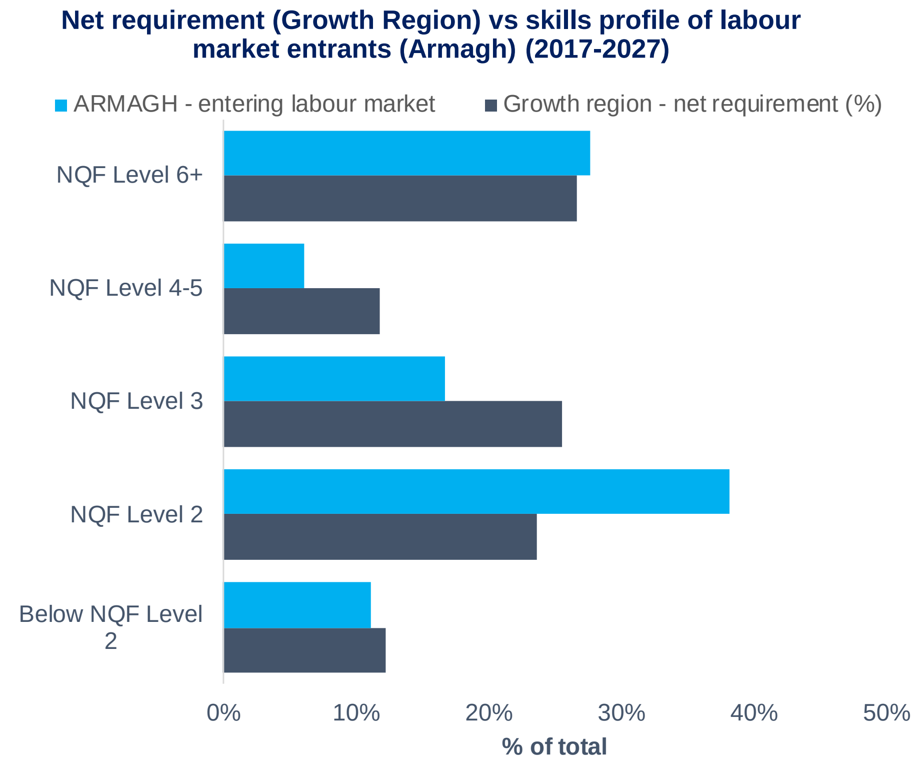
Annex D7: DEA Net Requirement (Banbridge and Armagh)



Source: UUEPC



Source: UUEPC

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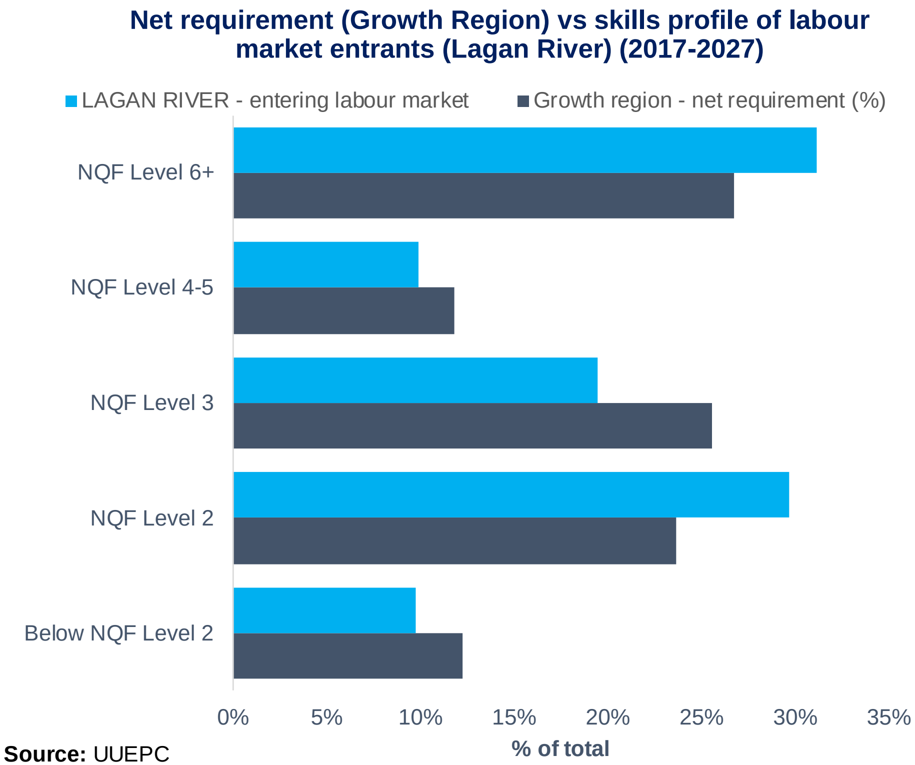
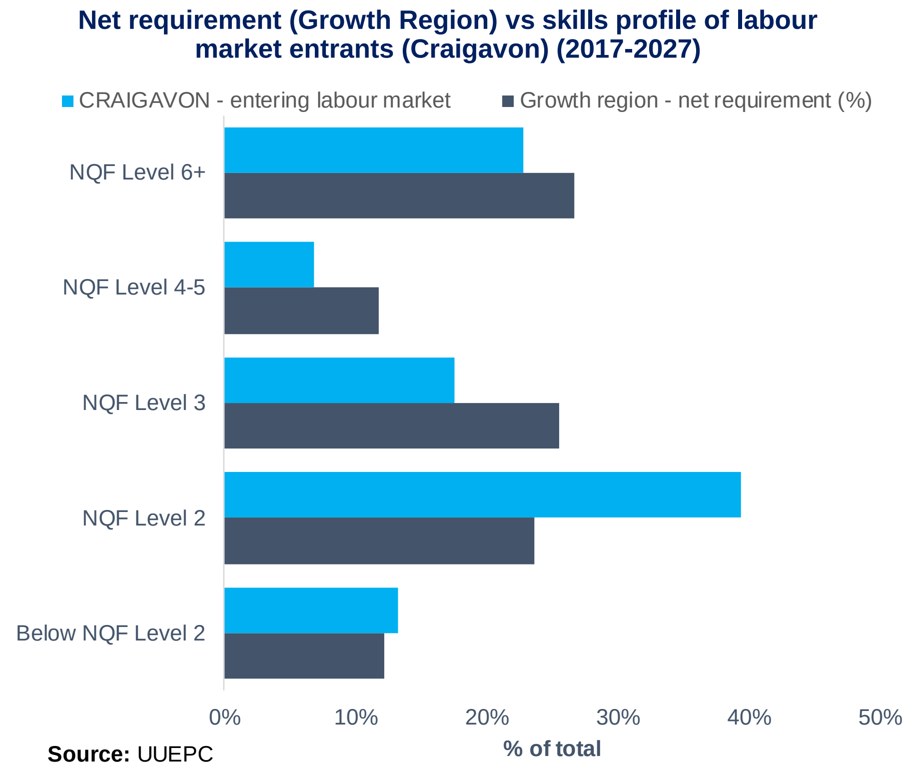
Annex D7: DEA Net Requirement (Lagan River and Craigavon)

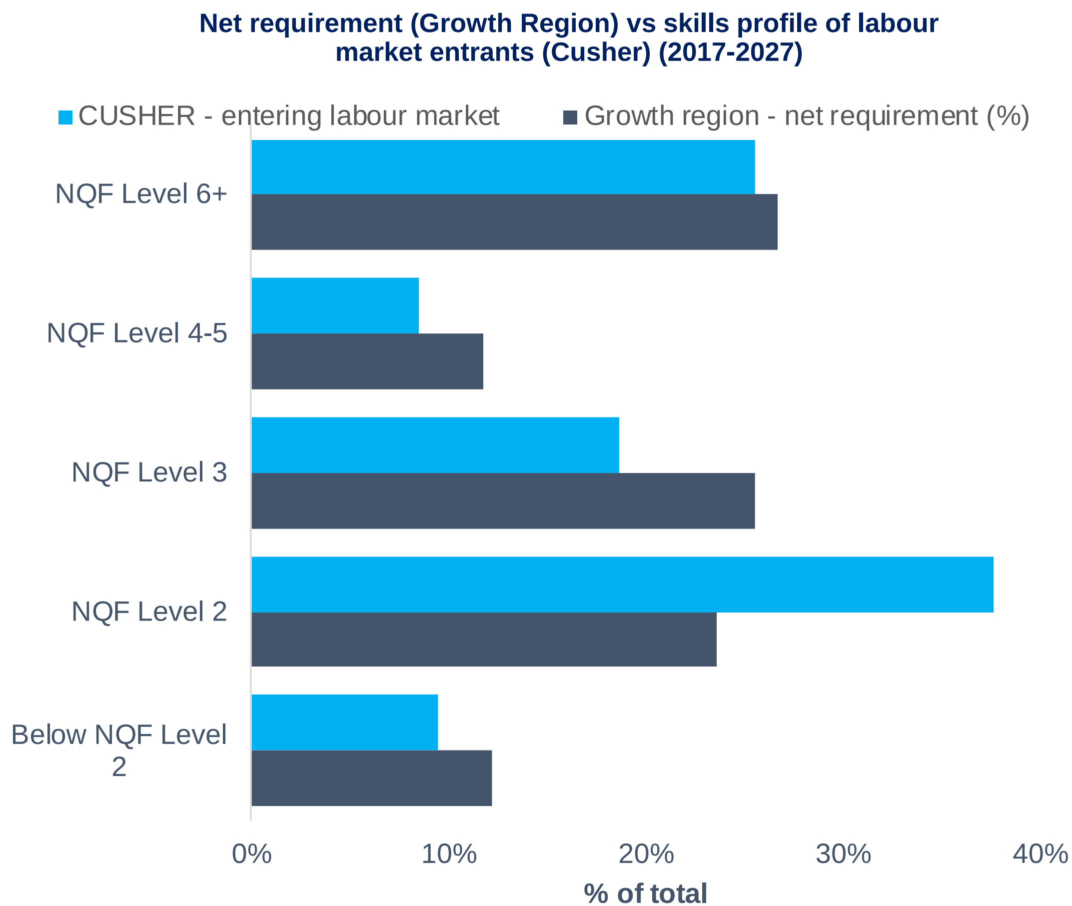


Source: UUEPC



Source: UUEPC

Annex D7: DEA Net Requirement (Cusher)



Source: UUEPC

Annex E: DEA Score cards

Ulster University

Annex E1: Enniskillen Scorecard (Fermanagh and Omagh)

	Enniskillen	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	65%	56
	% of school enrolments entitled to FSM	30%	53
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	14%	53
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	51%	17
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	19%	61
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	20%	14
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	18%	66
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	12%	43
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	41%	47
	% of 16-64 population with high qualifications (NQF level 4+)	26%	32
	% of 16-34 population with low qualifications (below NQF level 2)	33%	62
	% of 16-34 population with high qualifications (NQF level 4+)	23%	44
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	23%	53
	Social security clients (client group analysis) as a % of the population (16-34)	18%	59
	Housing benefit claimants as a % of the population (16-64)	11%	55
	Housing benefit claimants as a % of the population (16-34)	10%	58
	% of households with no adults in employment	35%	42
	% of households with no adults in employment with dependent children	5%	38
	% of households with lone parents with dependent children	9%	45
	% of people employed who are either managers/senior officials or professionals	8%	39
	Employment rate (%, 16-74 population)	62%	37
	Unemployed who have never worked (% of unemployed)	15%	41

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

Ulster University

Annex E2: Erne East (Fermanagh and Omagh)

	Erne East	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	75%	16
	% of school enrolments entitled to FSM	33%	60
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	20%	71
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	45%	6
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	12%	36
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	17%	25
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	16%	74
	% 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)	45%	70
	% of 16-64 population with high qualifications (NQF level 4+)	21%	67
	% of 16-34 population with low qualifications (below NQF level 2)	31%	55
	% of 16-34 population with high qualifications (NQF level 4+)	24%	40
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	20%	36
	Social security clients (client group analysis) as a % of the population (16-34)	13%	33
	Housing benefit claimants as a % of the population (16-64)	8%	34
	Housing benefit claimants as a % of the population (16-34)	6%	30
	% of households with no adults in employment	33%	34
	% of households with no adults in employment with dependent children	5%	41
	% of households with lone parents with dependent children	6%	17
	% of people employed who are either managers/senior officials or professionals	7%	67
	Employment rate (%, 16-74 population)	60%	49
	Unemployed who have never worked (% of unemployed)	16%	48

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

Annex E3: Erne North (Fermanagh and Omagh)

	Erne North	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	58%	73
	% of school enrolments entitled to FSM	26%	42
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	9%	33
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	55%	39
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	15%	49
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	14%	55
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	7%	80
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	12%	47
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	43%	61
	% of 16-64 population with high qualifications (NQF level 4+)	22%	59
	% of 16-34 population with low qualifications (below NQF level 2)	31%	53
	% of 16-34 population with high qualifications (NQF level 4+)	24%	37
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	22%	46
	Social security clients (client group analysis) as a % of the population (16-34)	15%	49
	Housing benefit claimants as a % of the population (16-64)	9%	41
	Housing benefit claimants as a % of the population (16-34)	7%	46
	% of households with no adults in employment	35%	43
	% of households with no adults in employment with dependent children	5%	33
	% of households with lone parents with dependent children	6%	24
	% of people employed who are either managers/senior officials or professionals	8%	27
	Employment rate (%, 16-74 population)	61%	44
	Unemployed who have never worked (% of unemployed)	16%	51

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

Annex E4: Erne West (Fermanagh and Omagh)

	Erne West	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	67%	43
	% of school enrolments entitled to FSM	22%	32
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	11%	42
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	52%	22
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	17%	55
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	22%	5
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	17%	72
	% 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)	41%	50
	% of 16-64 population with high qualifications (NQF level 4+)	25%	40
	% of 16-34 population with low qualifications (below NQF level 2)	29%	42
	% of 16-34 population with high qualifications (NQF level 4+)	27%	21
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	16%	15
	Social security clients (client group analysis) as a % of the population (16-34)	10%	14
	Housing benefit claimants as a % of the population (16-64)	5%	10
	Housing benefit claimants as a % of the population (16-34)	4%	11
	% of households with no adults in employment	30%	15
	% of households with no adults in employment with dependent children	3%	13
	% of households with lone parents with dependent children	4%	1
	% of people employed who are either managers/senior officials or professionals	7%	51
	Employment rate (%, 16-74 population)	65%	18
	Unemployed who have never worked (% of unemployed)	14%	34

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

Ulster University

Annex E5: Mid Tyrone (Fermanagh and Omagh)

	Mid Tyrone	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	72%	26
	% of school enrolments entitled to FSM	28%	47
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	13%	48
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	55%	33
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	15%	50
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	23%	4
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	24%	38
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	14%	18
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	38%	34
	% of 16-64 population with high qualifications (NQF level 4+)	27%	27
	% of 16-34 population with low qualifications (below NQF level 2)	26%	25
	% of 16-34 population with high qualifications (NQF level 4+)	28%	19
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	22%	50
	Social security clients (client group analysis) as a % of the population (16-34)	13%	31
	Housing benefit claimants as a % of the population (16-64)	5%	17
	Housing benefit claimants as a % of the population (16-34)	4%	14
	% of households with no adults in employment	30%	14
	% of households with no adults in employment with dependent children	6%	51
	% of households with lone parents with dependent children	5%	8
	% of people employed who are either managers/senior officials or professionals	7%	64
	Employment rate (%, 16-74 population)	61%	45
	Unemployed who have never worked (% of unemployed)	18%	57

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

Ulster University

Annex E6: Omagh (Fermanagh and Omagh)

	Omagh	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	61%	68
	% of school enrolments entitled to FSM	39%	69
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	16%	62
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	61%	61
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	24%	74
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	17%	32
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	26%	29
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	15%	12
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	44%	65
	% of 16-64 population with high qualifications (NQF level 4+)	24%	46
	% of 16-34 population with low qualifications (below NQF level 2)	35%	68
	% of 16-34 population with high qualifications (NQF level 4+)	23%	45
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	30%	73
	Social security clients (client group analysis) as a % of the population (16-34)	20%	61
	Housing benefit claimants as a % of the population (16-64)	16%	69
	Housing benefit claimants as a % of the population (16-34)	11%	62
	% of households with no adults in employment	41%	72
	% of households with no adults in employment with dependent children	7%	64
	% of households with lone parents with dependent children	10%	59
	% of people employed who are either managers/senior officials or professionals	7%	61
	Employment rate (%, 16-74 population)	55%	70
	Unemployed who have never worked (% of unemployed)	20%	70

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

Ulster University

Annex E6: West Tyrone (Fermanagh and Omagh)

	West Tyrone	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	83%	4
	% of school enrolments entitled to FSM	22%	33
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	14%	56
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	52%	21
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	18%	60
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	22%	7
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	15%	75
	% 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)	41%	49
	% of 16-64 population with high qualifications (NQF level 4+)	25%	37
	% of 16-34 population with low qualifications (below NQF level 2)	27%	31
	% of 16-34 population with high qualifications (NQF level 4+)	27%	22
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	21%	44
	Social security clients (client group analysis) as a % of the population (16-34)	12%	25
	Housing benefit claimants as a % of the population (16-64)	7%	28
	Housing benefit claimants as a % of the population (16-34)	4%	17
	% of households with no adults in employment	32%	25
	% of households with no adults in employment with dependent children	5%	36
	% of households with lone parents with dependent children	5%	5
	% of people employed who are either managers/senior officials or professionals	7%	58
	Employment rate (%, 16-74 population)	62%	40
	Unemployed who have never worked (% of unemployed)	17%	56

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

Ranked in the top 10 performing DEA's in NI (green)

Ranked in the bottom 10 performing DEA's in NI (red)

Annex E7: Carntogher (Mid Ulster)

	Carntogher	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	77%	12
	% of school enrolments entitled to FSM	20%	24
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	10%	37
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	54%	30
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	20%	65
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	16%	38
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	23%	47
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	21%	1
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	40%	42
	% of 16-64 population with high qualifications (NQF level 4+)	23%	51
	% of 16-34 population with low qualifications (below NQF level 2)	26%	23
	% of 16-34 population with high qualifications (NQF level 4+)	25%	31
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	18%	23
	Social security clients (client group analysis) as a % of the population (16-34)	8%	8
	Housing benefit claimants as a % of the population (16-64)	5%	18
	Housing benefit claimants as a % of the population (16-34)	3%	2
	% of households with no adults in employment	29%	10
	% of households with no adults in employment with dependent children	5%	39
	% of households with lone parents with dependent children	6%	12
	% of people employed who are either managers/senior officials or professionals	6%	74
	Employment rate (%, 16-74 population)	62%	39
	Unemployed who have never worked (% of unemployed)	12%	16

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

Annex E8: Clogher Valley (Mid Ulster)

	Clogher Valley	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	69%	33
	% of school enrolments entitled to FSM	21%	25
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	14%	54
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	56%	44
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	23%	71
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	18%	23
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	25%	34
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	19%	3
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	41%	52
	% of 16-64 population with high qualifications (NQF level 4+)	23%	47
	% of 16-34 population with low qualifications (below NQF level 2)	28%	35
	% of 16-34 population with high qualifications (NQF level 4+)	27%	23
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	17%	22
	Social security clients (client group analysis) as a % of the population (16-34)	10%	12
	Housing benefit claimants as a % of the population (16-64)	5%	11
	Housing benefit claimants as a % of the population (16-34)	3%	10
	% of households with no adults in employment	30%	13
	% of households with no adults in employment with dependent children	4%	25
	% of households with lone parents with dependent children	5%	9
	% of people employed who are either managers/senior officials or professionals	7%	65
	Employment rate (%, 16-74 population)	65%	19
	Unemployed who have never worked (% of unemployed)	18%	61

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

Ulster University

Annex E9: Cookstown (Mid Ulster)

	Cookstown	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	62%	65
	% of school enrolments entitled to FSM	35%	62
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	16%	64
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	56%	42
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	23%	72
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	11%	74
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	17%	71
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	12%	45
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	46%	71
	% of 16-64 population with high qualifications (NQF level 4+)	20%	73
	% of 16-34 population with low qualifications (below NQF level 2)	34%	63
	% of 16-34 population with high qualifications (NQF level 4+)	21%	64
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	22%	49
	Social security clients (client group analysis) as a % of the population (16-34)	13%	38
	Housing benefit claimants as a % of the population (16-64)	8%	36
	Housing benefit claimants as a % of the population (16-34)	6%	31
	% of households with no adults in employment	34%	41
	% of households with no adults in employment with dependent children	6%	49
	% of households with lone parents with dependent children	8%	41
	% of people employed who are either managers/senior officials or professionals	7%	54
	Employment rate (%, 16-74 population)	59%	57
	Unemployed who have never worked (% of unemployed)	19%	68

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

Annex E10: Dungannon (Mid Ulster)

	Dungannon	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	67%	42
	% of school enrolments entitled to FSM	28%	48
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	14%	51
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	65%	71
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	30%	79
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	13%	67
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	19%	64
	% 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)	46%	74
	% of 16-64 population with high qualifications (NQF level 4+)	23%	54
	% of 16-34 population with low qualifications (below NQF level 2)	42%	79
	% of 16-34 population with high qualifications (NQF level 4+)	21%	63
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	20%	35
	Social security clients (client group analysis) as a % of the population (16-34)	13%	36
	Housing benefit claimants as a % of the population (16-64)	8%	39
	Housing benefit claimants as a % of the population (16-34)	6%	36
	% of households with no adults in employment	33%	29
	% of households with no adults in employment with dependent children	5%	43
	% of households with lone parents with dependent children	9%	46
	% of people employed who are either managers/senior officials or professionals	7%	60
	Employment rate (%, 16-74 population)	63%	32
	Unemployed who have never worked (% of unemployed)	22%	73

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

Annex E11: Magherafelt (Mid Ulster)

	Magherafelt	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	53%	78
	% of school enrolments entitled to FSM	21%	27
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	6%	11
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	58%	50
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	30%	77
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	17%	31
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	26%	33
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	15%	15
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	41%	51
	% of 16-64 population with high qualifications (NQF level 4+)	23%	50
	% of 16-34 population with low qualifications (below NQF level 2)	30%	49
	% of 16-34 population with high qualifications (NQF level 4+)	23%	50
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	19%	31
	Social security clients (client group analysis) as a % of the population (16-34)	12%	27
	Housing benefit claimants as a % of the population (16-64)	7%	29
	Housing benefit claimants as a % of the population (16-34)	5%	19
	% of households with no adults in employment	30%	16
	% of households with no adults in employment with dependent children	6%	52
	% of households with lone parents with dependent children	7%	36
	% of people employed who are either managers/senior officials or professionals	8%	46
	Employment rate (%, 16-74 population)	63%	33
	Unemployed who have never worked (% of unemployed)	13%	27

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

Ulster University

Annex E12: Moyola (Mid Ulster)

	Moyola	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	65%	55
	% of school enrolments entitled to FSM	18%	17
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	11%	43
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	49%	13
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	15%	48
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	14%	53
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	30%	14
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	11%	48
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	39%	38
	% of 16-64 population with high qualifications (NQF level 4+)	25%	42
	% of 16-34 population with low qualifications (below NQF level 2)	25%	19
	% of 16-34 population with high qualifications (NQF level 4+)	26%	26
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	17%	19
	Social security clients (client group analysis) as a % of the population (16-34)	8%	5
	Housing benefit claimants as a % of the population (16-64)	5%	14
	Housing benefit claimants as a % of the population (16-34)	3%	8
	% of households with no adults in employment	27%	6
	% of households with no adults in employment with dependent children	4%	31
	% of households with lone parents with dependent children	5%	7
	% of people employed who are either managers/senior officials or professionals	7%	57
	Employment rate (%, 16-74 population)	64%	23
	Unemployed who have never worked (% of unemployed)	13%	25

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

Ulster University

Annex E13: Torrent (Mid Ulster)

	Torrent	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	67%	43
	% of school enrolments entitled to FSM	35%	61
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	17%	65
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	51%	18
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	17%	56
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	15%	44
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	20%	59
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	17%	6
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	42%	58
	% of 16-64 population with high qualifications (NQF level 4+)	22%	60
	% of 16-34 population with low qualifications (below NQF level 2)	30%	47
	% of 16-34 population with high qualifications (NQF level 4+)	24%	42
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	22%	51
	Social security clients (client group analysis) as a % of the population (16-34)	13%	39
	Housing benefit claimants as a % of the population (16-64)	7%	32
	Housing benefit claimants as a % of the population (16-34)	5%	26
	% of households with no adults in employment	34%	39
	% of households with no adults in employment with dependent children	8%	69
	% of households with lone parents with dependent children	10%	54
	% of people employed who are either managers/senior officials or professionals	7%	50
	Employment rate (%, 16-74 population)	57%	65
	Unemployed who have never worked (% of unemployed)	16%	52

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

Annex E8: Armagh (Armagh City, Banbridge and Craigavon)

	Armagh	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	71%	30
	% of school enrolments entitled to FSM	31%	55
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	16%	63
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	64%	68
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	11%	25
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	14%	52
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	15%	76
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	12%	46
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	42%	56
	% of 16-64 population with high qualifications (NQF level 4+)	23%	52
	% of 16-34 population with low qualifications (below NQF level 2)	33%	60
	% of 16-34 population with high qualifications (NQF level 4+)	22%	62
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	21%	41
	Social security clients (client group analysis) as a % of the population (16-34)	14%	42
	Housing benefit claimants as a % of the population (16-64)	9%	47
	Housing benefit claimants as a % of the population (16-34)	7%	42
	% of households with no adults in employment	35%	47
	% of households with no adults in employment with dependent children	6%	56
	% of households with lone parents with dependent children	9%	50
	% of people employed who are either managers/senior officials or professionals	8%	43
	Employment rate (%, 16-74 population)	60%	56
	Unemployed who have never worked (% of unemployed)	17%	54

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

Ulster University

Annex E9: Banbridge (Armagh City, Banbridge and Craigavon)

	Banbridge	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	69%	34
	% of school enrolments entitled to FSM	22%	31
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	8%	24
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	58%	51
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	9%	11
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	16%	37
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	18%	66
	% 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)	38%	33
	% of 16-64 population with high qualifications (NQF level 4+)	25%	39
	% of 16-34 population with low qualifications (below NQF level 2)	28%	36
	% of 16-34 population with high qualifications (NQF level 4+)	26%	29
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	20%	39
	Social security clients (client group analysis) as a % of the population (16-34)	13%	37
	Housing benefit claimants as a % of the population (16-64)	8%	37
	Housing benefit claimants as a % of the population (16-34)	6%	38
	% of households with no adults in employment	32%	27
	% of households with no adults in employment with dependent children	5%	35
	% of households with lone parents with dependent children	8%	42
	% of people employed who are either managers/senior officials or professionals	9%	23
	Employment rate (%, 16-74 population)	64%	22
	Unemployed who have never worked (% of unemployed)	13%	26

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

Ulster University

Annex E10: Craigavon (Armagh City, Banbridge and Craigavon)

	Craigavon	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	63%	64
	% of school enrolments entitled to FSM	28%	45
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	9%	28
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	65%	70
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	13%	38
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	13%	65
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	19%	60
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	14%	27
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	41%	48
	% of 16-64 population with high qualifications (NQF level 4+)	25%	38
	% of 16-34 population with low qualifications (below NQF level 2)	33%	58
	% of 16-34 population with high qualifications (NQF level 4+)	25%	32
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	21%	42
	Social security clients (client group analysis) as a % of the population (16-34)	14%	45
	Housing benefit claimants as a % of the population (16-64)	8%	35
	Housing benefit claimants as a % of the population (16-34)	6%	35
	% of households with no adults in employment	30%	18
	% of households with no adults in employment with dependent children	6%	60
	% of households with lone parents with dependent children	10%	55
	% of people employed who are either managers/senior officials or professionals	8%	35
	Employment rate (%, 16-74 population)	63%	34
	Unemployed who have never worked (% of unemployed)	18%	62

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

Annex E11: Cusher (Armagh City, Banbridge and Craigavon)

	Cusher	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	70%	31
	% of school enrolments entitled to FSM	22%	29
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	9%	29
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	58%	52
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	8%	10
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	20%	16
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	20%	55
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	14%	28
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	39%	37
	% of 16-64 population with high qualifications (NQF level 4+)	24%	45
	% of 16-34 population with low qualifications (below NQF level 2)	27%	33
	% of 16-34 population with high qualifications (NQF level 4+)	26%	28
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	18%	25
	Social security clients (client group analysis) as a % of the population (16-34)	11%	20
	Housing benefit claimants as a % of the population (16-64)	5%	15
	Housing benefit claimants as a % of the population (16-34)	4%	15
	% of households with no adults in employment	29%	8
	% of households with no adults in employment with dependent children	4%	26
	% of households with lone parents with dependent children	6%	26
	% of people employed who are either managers/senior officials or professionals	8%	26
	Employment rate (%, 16-74 population)	66%	14
	Unemployed who have never worked (% of unemployed)	14%	36

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

Annex E12: Lagan River (Armagh City, Banbridge and Craigavon)

	Lagan River	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	74%	22
	% of school enrolments entitled to FSM	12%	7
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	4%	5
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	53%	27
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	8%	8
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	21%	8
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	25%	34
	% 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)	31%	12
	% of 16-64 population with high qualifications (NQF level 4+)	31%	12
	% of 16-34 population with low qualifications (below NQF level 2)	22%	8
	% of 16-34 population with high qualifications (NQF level 4+)	32%	8
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	14%	6
	Social security clients (client group analysis) as a % of the population (16-34)	8%	3
	Housing benefit claimants as a % of the population (16-64)	4%	5
	Housing benefit claimants as a % of the population (16-34)	3%	4
	% of households with no adults in employment	25%	3
	% of households with no adults in employment with dependent children	3%	14
	% of households with lone parents with dependent children	6%	15
	% of people employed who are either managers/senior officials or professionals	10%	10
	Employment rate (%, 16-74 population)	69%	4
	Unemployed who have never worked (% of unemployed)	8%	1

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

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Annex E13: Lurgan (Armagh city, Banbridge and Craigavon)

	Lurgan	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	62%	67
	% of school enrolments entitled to FSM	27%	44
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	13%	50
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	63%	65
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	14%	41
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	13%	64
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	24%	37
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	11%	49
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	42%	53
	% of 16-64 population with high qualifications (NQF level 4+)	22%	58
	% of 16-34 population with low qualifications (below NQF level 2)	32%	57
	% of 16-34 population with high qualifications (NQF level 4+)	22%	56
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	23%	55
	Social security clients (client group analysis) as a % of the population (16-34)	16%	53
	Housing benefit claimants as a % of the population (16-64)	10%	54
	Housing benefit claimants as a % of the population (16-34)	9%	55
	% of households with no adults in employment	37%	54
	% of households with no adults in employment with dependent children	6%	55
	% of households with lone parents with dependent children	10%	56
	% of people employed who are either managers/senior officials or professionals	8%	45
	Employment rate (%, 16-74 population)	60%	51
	Unemployed who have never worked (% of unemployed)	15%	40

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

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Annex E14: Portadown (Armagh City, Banbridge and Craigavon)

	Portadown	%	Rank
Skills flow	% of school leavers achieving 5 GCSE's (including English and maths)	62%	66
	% of school enrolments entitled to FSM	30%	52
	% of school leavers entitled to FSM achieving 5 GCSE's (including English and maths)	12%	45
	% of FE qualifiers achieving a highest level of qualification at NQF level 2 and below	69%	79
	% of FE qualifiers achieving a highest level of qualification at NQF level 2	20%	63
	Qualifiers from tertiary level education in either FE or HE as a % of the 20-24 year olds	12%	70
	% of HE qualifiers achieving a postgraduate qualification (NQF level 7-8)	19%	62
	% of HE qualifiers gaining qualifications in maths, computing, engineering & technology	16%	8
Skills stock	% of 16-64 population with low qualifications (below NQF level 2)	46%	72
	% of 16-64 population with high qualifications (NQF level 4+)	21%	65
	% of 16-34 population with low qualifications (below NQF level 2)	36%	73
	% of 16-34 population with high qualifications (NQF level 4+)	22%	55
Labour market and socio-economic indicators	Social security clients (client group analysis) as a % of the population (16-64)	21%	43
	Social security clients (client group analysis) as a % of the population (16-34)	14%	40
	Housing benefit claimants as a % of the population (16-64)	10%	53
	Housing benefit claimants as a % of the population (16-34)	7%	47
	% of households with no adults in employment	36%	53
	% of households with no adults in employment with dependent children	5%	45
	% of households with lone parents with dependent children	9%	49
	% of people employed who are either managers/senior officials or professionals	7%	63
	Employment rate (%, 16-74 population)	61%	46
	Unemployed who have never worked (% of unemployed)	13%	32

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

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