

# Skills Barometer: 2023-33

## Information pack



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# Acronyms

Acronym	Full Name
<b>UUEPC</b>	Ulster University Economic Policy Centre
<b>DfE</b>	Department for the Economy
<b>NI</b>	Northern Ireland
<b>UK</b>	United Kingdom
<b>GB</b>	Great Britain
<b>HE</b>	Higher Education
<b>FE</b>	Further Education
<b>HEI</b>	Higher Education Institution
<b>NQF</b>	National Qualification Framework
<b>RQF</b>	Regulated Qualification Framework
<b>CAH</b>	Common Aggregation Hierarchy
<b>JACS</b>	Joint Academic Coding System
<b>SSA</b>	Sector Subject Area
<b>SIC</b>	Standard Industrial Classification
<b>SOC</b>	Standard Occupational Classification
<b>GCSE</b>	General Certificate of Secondary Education
<b>HESA</b>	Higher Education Statistics Agency
<b>NISRA</b>	Northern Ireland Statistics and Research Agency
<b>ONS</b>	Office for National Statistics
<b>NINo</b>	National Insurance Number
<b>CAGR</b>	Compound Annual Growth Rate
<b>DE</b>	Department of Education



# Introduction and key findings

Section





# Introduction

# Skills Barometer Background

Ulster University Economic Policy Centre (UUEPC) were originally commissioned in 2015 to report on the quantum of future skill requirements for Northern Ireland (NI) by Department for the Economy (DfE).

The NI Skills Barometer involved the development of an economic model to forecast future skills needs and skills gaps by qualification level, subject area and sector for NI. The project has been updated at two-year intervals.

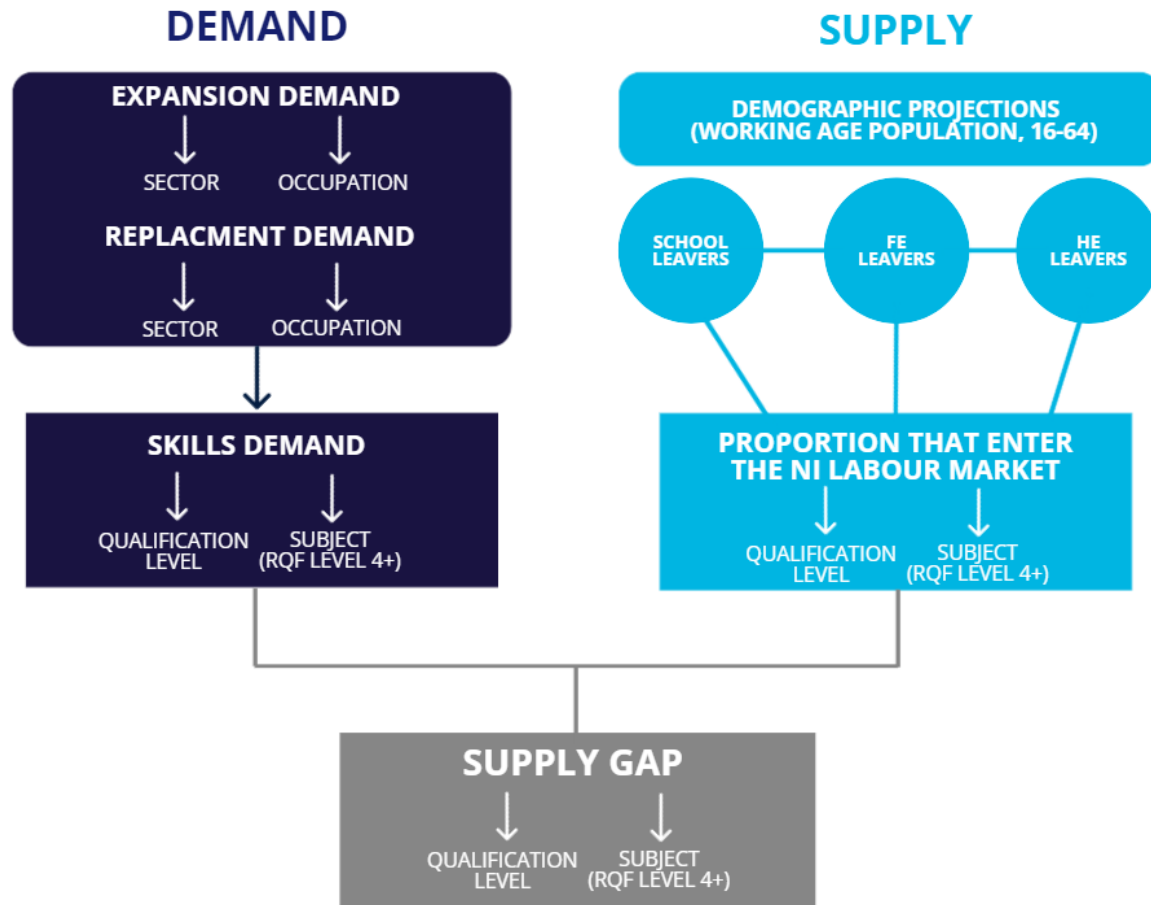
However, since the Skills Barometer 2021 publication there have been changes to a number of key data sources used in the development of the model. This includes different survey questions for Higher Education (HE) and Further Education (FE) qualifiers, a change in the subject framework for reporting HE qualifiers, revisions to the Standard Occupational Classifications (SOC) and a move from the National Qualification Framework (NQF) to the Regulated Qualification Framework (RQF) for reporting qualification levels. Therefore, the Skills Barometer model has been redeveloped to reflect such changes and outputs across some key indicators are not comparable across iterations. Further information on the changes is provided in the 'Methodology update since 2021 publication' section.

Overall, the quantitative findings of the research have continued to benefit a wide range of stakeholders including; careers advisors, young people and parents; teachers and schools; business groups; DfE; and wider government.

During the period when this research was undertaken, the historical data edge for most key indicators was 2023. This update report is **the fifth publication in relation to the NI Skills Barometer, and covers the 2023-2033 period.**



# Methodological approach





# Methodology updates since 2021 publication



# Occupation modelling

This iteration of the NI Skills Barometer has included the development of occupation forecasts using the Standard Occupational Classification (SOC) for 2020. The development of occupation forecasts are essential in this type of work and can better reflect the importance of certain job types which are cross cutting across different industries (e.g. there is an IT sector, but the number of IT workers is much higher as these types of skills are also demanded in other sectors). The data has been forecast at a more granular level of detail (4-digit SOC) than in previous publications, providing a more detailed portrait of the profile of work across the NI economy.

Occupation data also provides a better base upon which to forecast the demand for different subject types, as education courses tend to map more accurately to occupations rather than sectors. For example, engineering courses is better linked to the number of engineers demanded, rather than to the number of people demanded in key sectors such as manufacturing or construction.

UUEPC's occupation forecasts are developed by using an industry by occupation matrix – this directly links our occupation data to UUEPC's sector forecasts. In this modelling framework, if a sector is projected to achieve high job growth this will translate to high job growth in occupations that are important within that sector. For example, high job growth in residential care will translate as high job growth in caring occupations.

A historical mapping exercise was also undertaken to develop estimates of employment in 2011 on a SOC 2020 basis. This enabled us to take account of the historical trend when setting forecasts for the coming decade. For example, reflecting the fact that some occupation types are likely to continue to increase their sectoral share in certain occupations, and vice versa.

# Qualification framework

This publication of the Skills Barometer incorporates a move from the NQF to the RQF. Unless otherwise stated, any qualification information is presented based on the RQF throughout this publication.

The key differences between the NQF and the RQF can be summarised in the two tables below.

**OLD system: National Qualifications Framework (NQF)**

NQF level	Qualification equivalent
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	2+ A-level (or equivalent)
Level 2	5 GCSE A*-C (or equivalent)
Level 1	< 5 GCSE A*-C (or equivalent)
Entry level	Below NQF level 1

**NEW system: Regulated Qualifications Framework (RQF)**

RQF level	Qualification equivalent
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	1+ A-level A-E and/or AS level (or equivalent)
Level 2	1 GCSE A*-C (or equivalent)
Level 1	1 GCSE D-G (or equivalent)
Entry level	Below RQF level 1

That is, tertiary level qualifications and above (RQF Level 4+) have remained the same across both frameworks. However, for those below RQF level 4, a number of differences can be highlighted. RQF level 3 refers to 1+ A-levels, as opposed to 2+ A-levels in the NQF framework. RQF Level 2 refers to 1+ GCSEs A\*-C, as opposed to 5+ GCSEs A\*-C in the NQF framework, and so on. Therefore, it is not possible to make direct comparisons of results across Skills Barometer publications on a qualification basis.

For further information on the differences between NQF and RQF see the following link: [What different qualification levels mean](#)



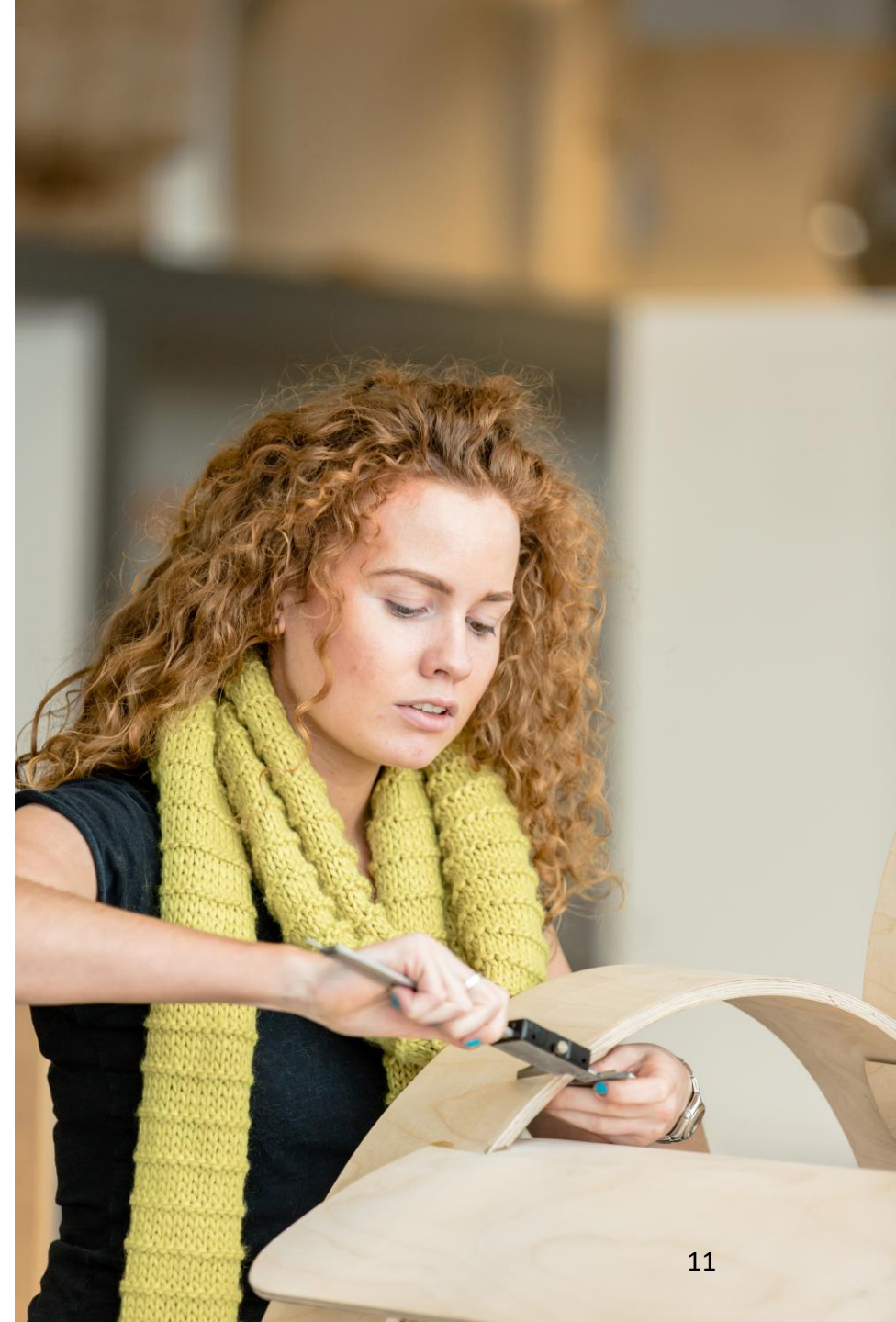
# Higher Education disaggregation

UUEPC have incorporated more detailed information from the Graduate Outcomes survey (i.e. qualifiers and outcomes split by level of qualification and subject studied).

Therefore, this Skills Barometer publication disaggregates HE qualifiers into undergraduate level qualifiers (i.e. degree level) and postgraduate level qualifiers (i.e. Masters, PhD), where previous iterations had degree level and above grouped together.

This provides a more comprehensive understanding of supply, demand and consequently any (im)balances over the coming decade.

Further this edition of the Skills Barometer incorporates Graduate Outcomes data, which surveys students 15 months after graduation. This is a change from previous iterations that used the now discontinued Destination of Leavers from Higher Education survey, which surveyed graduates 6 months after graduation.



# Higher Education subject framework

The subject framework used for reporting HE qualifiers has changed from Joint Academic Coding System (JACS) to the Common Aggregation Hierarchy (CAH), since the Skills Barometer 2021 publication.

This is a change to how subjects are reported and therefore grouped. For example, the old JACS subject grouping of 'biological sciences' has been split into two groupings in the new CAH subject groupings; namely 'biological and sport sciences' and 'psychology'. Although the subject groupings are broadly similar across the two frameworks, they are not directly comparable and therefore will only provide indicative comparisons for time series analysis.

For further information on differences between the two subject frameworks, please see the following link:

[The Common Aggregation Hierarchy - HESA](#)







# Modelling approach

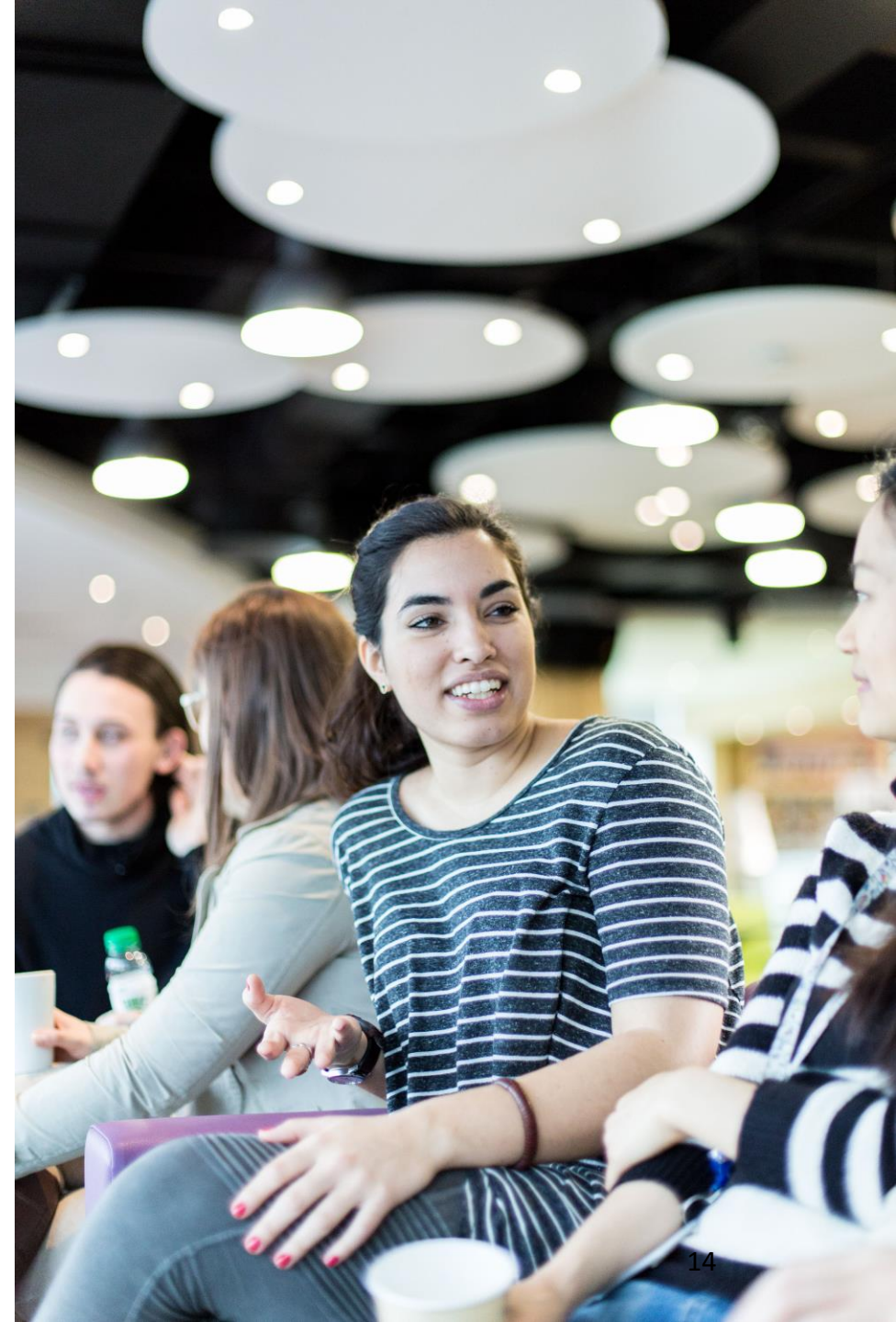
# Forecasting skills needs

It is prudent to plan for skills needs in an aspirational nature based on economic ambitions of an economy. The economic cost of skills shortages and skills mismatches can be substantial.

For example, if businesses are unable to meet their demand for skilled labour, the competitiveness of an economy will fall, productive capacity decreases, 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.



# UUEPC economic model (1)

UUEPC produces regular economic forecasts for NI under a baseline scenario and a high growth scenario\*.

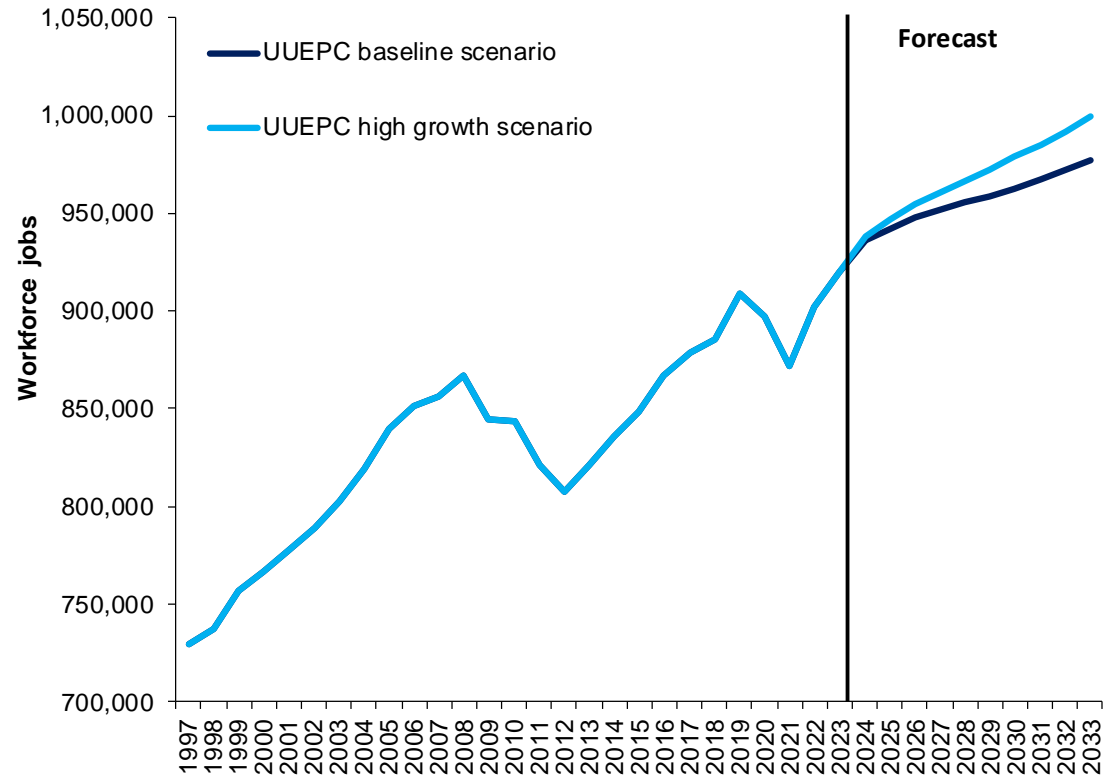
The **baseline scenario outlines the most likely economic outcome for NI**. Whereas the high growth scenario is aligned to outcomes associated with NI achieving future policy success.

**This report will focus on outcomes associated with a high growth scenario** as it is prudent to plan for skill needs in an aspirational nature based on economic ambitions of an economy.

Due to capacity constraints linked to the labour supply, employment is forecast to grow at a slower rate than recorded in the recent past, even under high-growth conditions. However, this involves the NI 16-64 employment rate increasing from 70% in 2023 to 76% by 2033, which would represent the highest employment rate recorded for the local economy by a significant margin.

The high growth scenario forecasts an 79k jobs over the 2023-2033 period, compared to 58k in the baseline.

Employment (jobs), high growth scenario versus baseline scenario, NI, 1997-2033



Source: UUEPC

\*Annex A1 and Annex A2 provide a detailed analysis of economic outputs under the baseline scenario and the high growth scenario.



# Sector forecasts (jobs based)

The high growth scenario forecasts growth in high-value added sectors aligned with DfE's Economic Vision (i.e. professional services, ICT). However, other significant areas of growth include:

- Health sector to have the largest absolute growth due to the size of the sector and expected additional government spending to address longer-term strain on the National Health Service.
- Construction to add the fourth highest quantum of jobs (after health, prof services and ICT) aligned to increased spending through City Deals commitments.
- Restaurants and hotels sector to experience above average NI growth as increased income under a high growth scenario is expected to benefit consumption driven sectors.
- It is also anticipated that the Manufacturing sector will continue to grow, but at a lower rate compared to the 2013-23 period.
- In contrast, employment growth is forecast to be flat in the Retail sector due to longer-term shifts, such as declining footfall across highstreets, automation and increased competition with E-commerce platforms.

Sector	Total jobs 2023 baseline	Job growth (absolute terms) 2023-2033		Job growth (p.a.)	
		Baseline scenario	High growth scenario	High growth scenario (2023- 2033)	Actual (2013- 2023)
Agriculture	27,620	+170	+320	0.1%	-3.2%
Mining	1,970	-10	+0	0.0%	1.0%
Manufacturing	94,870	+5,040	+7,720	0.8%	1.1%
Electricity & gas	2,150	+800	+1,790	6.2%	3.0%
Water supply & waste	8,070	+1,150	+1,350	1.6%	3.8%
Construction	53,140	+7,390	+9,130	1.6%	0.6%
Wholesale & retail	139,690	-2,550	-90	0.0%	0.2%
Transport & storage	32,500	+4,230	+5,960	1.7%	1.3%
Restaurants and hotels	57,810	+6,000	+7,150	1.2%	2.3%
Information & communication	27,530	+8,550	+9,930	3.1%	3.5%
Finance & insurance	20,460	+1,660	+2,260	1.1%	0.3%
Real estate	12,150	+110	+640	0.5%	2.6%
Professional scientific & technical	53,450	+8,310	+10,330	1.8%	5.5%
Administrative & support services	58,880	+3,210	+3,420	0.6%	2.0%
Public admin & defence	55,130	+440	+2,070	0.4%	-0.5%
Education	85,570	+440	+950	0.1%	1.7%
Health & social work	143,870	+11,250	+12,310	0.8%	1.0%
Arts & entertainment	21,300	+670	+1,630	0.7%	1.4%
Other service activities	23,720	+870	+2,440	1.0%	2.0%
<b>Total</b>	<b>920,000</b>	<b>+57,740</b>	<b>+79,310</b>	<b>0.8%</b>	<b>1.1%</b>

Source: Workforce Jobs, UUEPC

**Note:** Figures may not sum due to rounding.

**Note:** The labour market outlook is presented in 'job-based' terms and therefore differs from forecasts calculated on 'people-based' terms (i.e. some people have more than one job). It is essential to convert the forecasts from 'jobs' to 'people' based to determine the skills requirements of the labour market.

# Top 15 growth sectors (jobs based)

Top 15 growth sectors (2-digit) (based on CAGR)	Total jobs 2023 baseline	Job growth (absolute terms) 2023-2033		Job growth (p.a.)	
		Baseline scenario	High growth scenario	High growth scenario (2023- 2033)	Actual (2013- 2023)
Electricity, gas, steam and air conditioning supply	2,150	+800	+1,790	6.2%	3.0%
Computer programming, consultancy and related activities	16,820	+8,580	+9,550	4.6%	4.4%
Manufacture of basic pharmaceutical products and pharmaceutical preparations	3,120	+1,230	+1,490	4.0%	3.0%
Activities auxiliary to financial services and insurance activities	6,590	+2,490	+2,730	3.5%	2.2%
Other professional, scientific and technical activities	5,050	+1,790	+2,010	3.4%	5.9%
Warehousing and support activities for transportation	6,970	+2,230	+2,660	3.3%	3.6%
Repair and installation of machinery and equipment	1,770	+590	+610	3.0%	1.2%
Motion picture, video and television programme production, sound recording and music publishing activities	2,300	+550	+660	2.5%	2.5%
Manufacture of other transport equipment	6,840	+1,520	+1,900	2.5%	-0.9%
Manufacture of basic metals	1,360	+350	+370	2.4%	5.8%
Manufacture of chemicals and chemical products	2,490	+500	+630	2.3%	3.1%
Legal and accounting activities	21,040	+4,100	+4,920	2.1%	5.4%
Construction of buildings	14,440	+2,840	+3,330	2.1%	0.5%
Civil engineering	10,110	+1,840	+2,190	2.0%	1.4%
Activities of head offices; management consultancy activities	10,140	+1,790	+2,180	2.0%	9.6%

Source: Workforce Jobs, UUEPC

Note: Figures may not sum to total due to rounding. Table excludes 2-digit sectors with less than 1,000 people employed.

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# Occupation forecasts

The occupation forecasts are directly linked to the sector forecasts. Therefore, if a sector is expected to have high growth, this will translate to similarly high growth in the occupations associated with that sector. The high growth scenario includes key trends in the following areas:

- Caring and personal service occupations are expected to have the highest absolute increase, aligned to a large and growing health sector.
- Science research and engineering professionals expected to have the fastest growth and add the second largest absolute increase aligned to growth in professional services and manufacturing sectors.
- Marginal decline in occupations associated with sectors with weak employment growth prospects (e.g. sales occupations, skilled and agriculture trades etc.) as well as those likely to be impacted by increasing use of artificial intelligence over the coming decade (e.g. administrative occupations, secretarial and related occupations).
- At a more detailed occupation level (4-digit SOC) the fastest growing occupations are concentrated in digital and analytical occupations (e.g. data analysts, cyber security professionals, research and development managers etc.).





# Occupation forecasts (people based)

Occupation	Total jobs 2023 baseline	Employment growth (absolute terms) 2023-2033		Employment growth (p.a.)	
		Baseline scenario	High growth scenario	High growth scenario (2023-2033)	Actual (2013-2023)
Corporate managers and directors	49,740	+4,520	+5,840	1.1%	2.9%
Other managers and proprietors	30,440	+2,340	+3,170	1.0%	2.5%
Science, research, engineering and technology professionals	36,220	+8,840	+10,150	2.5%	2.9%
Health professionals	48,990	+7,720	+8,300	1.6%	1.2%
Teaching and other Educational professionals	35,860	+930	+1,300	0.4%	0.1%
Business, media and public service professionals	51,170	+7,520	+9,210	1.7%	2.4%
Science, engineering and technology associate professionals	15,000	+2,740	+3,220	2.0%	3.0%
Health and social care associate professionals	11,940	+1,630	+1,920	1.5%	1.7%
Protective service occupations	5,050	+270	+400	0.8%	0.8%
Culture, media and sports occupations	11,860	+700	+1,120	0.9%	2.0%
Business and public service associate professionals	38,880	+4,460	+5,590	1.4%	1.9%
Administrative occupations	74,420	-5,860	-4,100	-0.6%	-1.4%
Secretarial and related occupations	17,040	-1,420	-1,100	-0.7%	-1.7%
Skilled agricultural and related trades	22,170	-870	-620	-0.3%	-2.6%
Skilled metal, electrical and electronic trades	37,910	+4,960	+5,970	1.5%	1.3%
Skilled construction and building trades	29,780	+3,270	+4,080	1.3%	-0.2%
Textiles, printing and other skilled trades	22,090	+2,200	+2,740	1.2%	1.0%
Caring personal service occupations	74,170	+9,360	+10,360	1.3%	2.8%
Leisure, travel and related personal service occupations	17,440	+340	+1,080	0.6%	0.4%
Community and civil enforcement occupations	270	+30	+40	1.3%	1.5%
Sales occupations	64,820	-3,020	-2,170	-0.3%	-0.9%
Customer service occupations	12,230	+360	+650	0.5%	2.2%
Process, plant and machine operatives	32,570	+850	+1,770	0.5%	0.6%
Transport and mobile machine drivers and operatives	33,940	+4,500	+5,780	1.6%	0.5%
Elementary trades and related occupations	17,620	+1,800	+2,280	1.2%	0.4%
Elementary administration and service occupations	73,390	+1,650	+3,250	0.4%	0.6%
<b>Total</b>	<b>865,000</b>	<b>+59,820</b>	<b>+80,220</b>	<b>0.9%</b>	<b>0.8%</b>

Source: UUEPC

**Note:** Figures may not sum due to rounding.

**Note:** The occupation forecasts are presented in 'people-based' terms and therefore differ from sector forecasts calculated on 'job-based' terms (i.e. some people have more than one job). It is essential to convert the forecasts from 'jobs' to 'people' based to determine the skills requirements of the labour market.



# Top 20 4-digit occupation forecasts (people based)

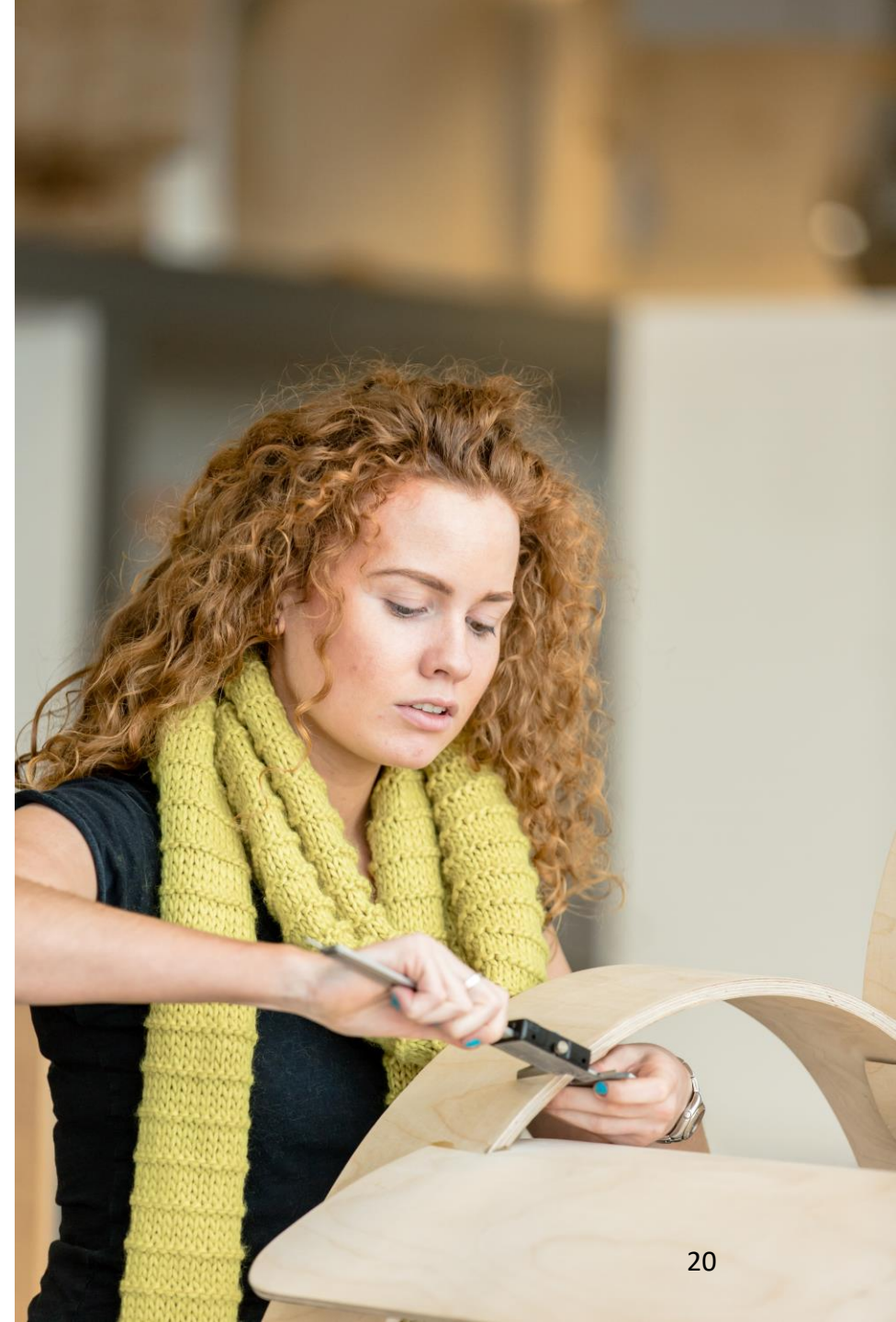
Top 20 growth occupations (4-digit) (based on CAGR)	Total jobs 2023 baseline	Employment growth (absolute terms) 2023-2033		Employment growth (p.a.)	
		Baseline scenario	High growth scenario	High growth scenario (2023-2033)	Actual (2013- 2023)
Data analysts	1,310	+950	+1,020	5.9%	10.4%
Cyber security professionals	490	+260	+280	4.6%	12.4%
Research and development (R&D) managers	950	+470	+500	4.3%	9.7%
IT network professionals	400	+170	+180	3.8%	7.1%
Pharmaceutical technicians	900	+350	+370	3.5%	3.8%
IT quality and testing professionals	450	+170	+190	3.5%	4.9%
Programmers and software development professionals	8,190	+2,910	+3,250	3.4%	4.0%
Business, research and administrative professionals n.e.c.	1,610	+580	+640	3.4%	9.0%
IT business analysts, architects and systems designers	2,100	+720	+800	3.3%	3.1%
Conservation professionals	270	+90	+100	3.2%	3.6%
Health associate professionals n.e.c.	370	+130	+140	3.2%	1.7%
Medical and dental technicians	890	+310	+330	3.2%	1.2%
IT managers	3,090	+980	+1,110	3.1%	1.7%
IT project managers	650	+200	+230	3.1%	1.4%
Environment professionals	730	+230	+260	3.1%	2.2%
Information technology professionals n.e.c.	1,490	+450	+510	3.0%	0.5%
Actuaries, economists and statisticians	1,560	+460	+520	2.9%	6.6%
Project support officers	1,240	+370	+410	2.9%	6.9%
Legal professionals n.e.c.	1,240	+350	+390	2.8%	8.4%
Legal associate professionals	980	+270	+310	2.8%	3.2%

**Source:** UUEPC

**Note:** This table excludes 4-digit occupations with less than 100 people employed.

**Note:** Figures may not sum due to rounding.

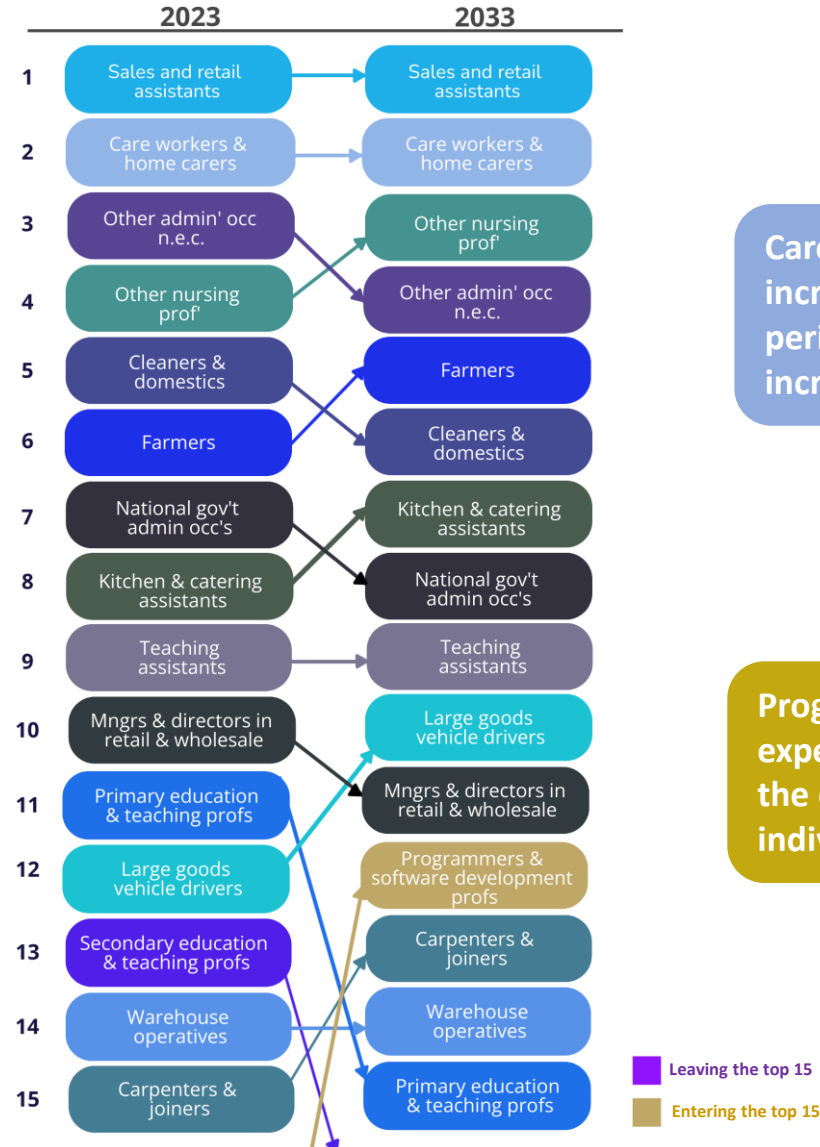
**Note:** The occupation forecasts are presented in 'people-based' terms and therefore differ from sector forecasts calculated on 'job-based' terms (i.e. some people have more than one job). It is essential to convert the forecasts from 'jobs' to 'people' based to determine the skills requirements of the labour market.





# Top 15 detailed occupations in NI (forecasts)

Northern Ireland's Top 15 occupations, 2023 vs 2033  
Rank based on absolute size of occupation.



Sales and retail assistants are forecast to remain the largest detailed (4-digit) occupation in 2033, however their share of total employment is expected to decline from 5.5% to 4.9%.

Care workers and home carers are expected to increase employment by 4.1k over the 10-year period to 2033. That is the largest absolute increase across all detailed (4-digit) occupations.

Other nursing professionals are expected to increase employment by 3.6k over the 10-year period to 2033. That is the second largest absolute increase across all detailed (4-digit) occupations.

Programmers & software developers are expected to increase by 3.4% per annum over the coming decade to account for a total of 11.4k individuals by 2033.



# Top 20 4-digit occupations 2023 (people based)

Top 20 occupations (4-digit) (based on absolute size)	2023
Sales and retail assistants	47,600
Care workers and home carers	31,100
Other administrative occupations n.e.c.	21,300
Other nursing professionals	19,600
Cleaners and domestics	16,900
Farmers	16,800
National government administrative occupations	15,800
Kitchen and catering assistants	14,000
Teaching assistants	11,600
Managers and directors in retail and wholesale	11,500
Primary education teaching professionals	10,500
Large goods vehicle drivers	10,200
Secondary education teaching professionals	10,100
Warehouse operatives	9,800
Carpenters and joiners	9,500
Food, drink and tobacco process operatives	9,300
Nursing auxiliaries and assistants	9,100
Programmers and software development professionals	8,200
Customer service occupations n.e.c.	8,200
Metal working production and maintenance fitters	8,000

Source: UUEPC



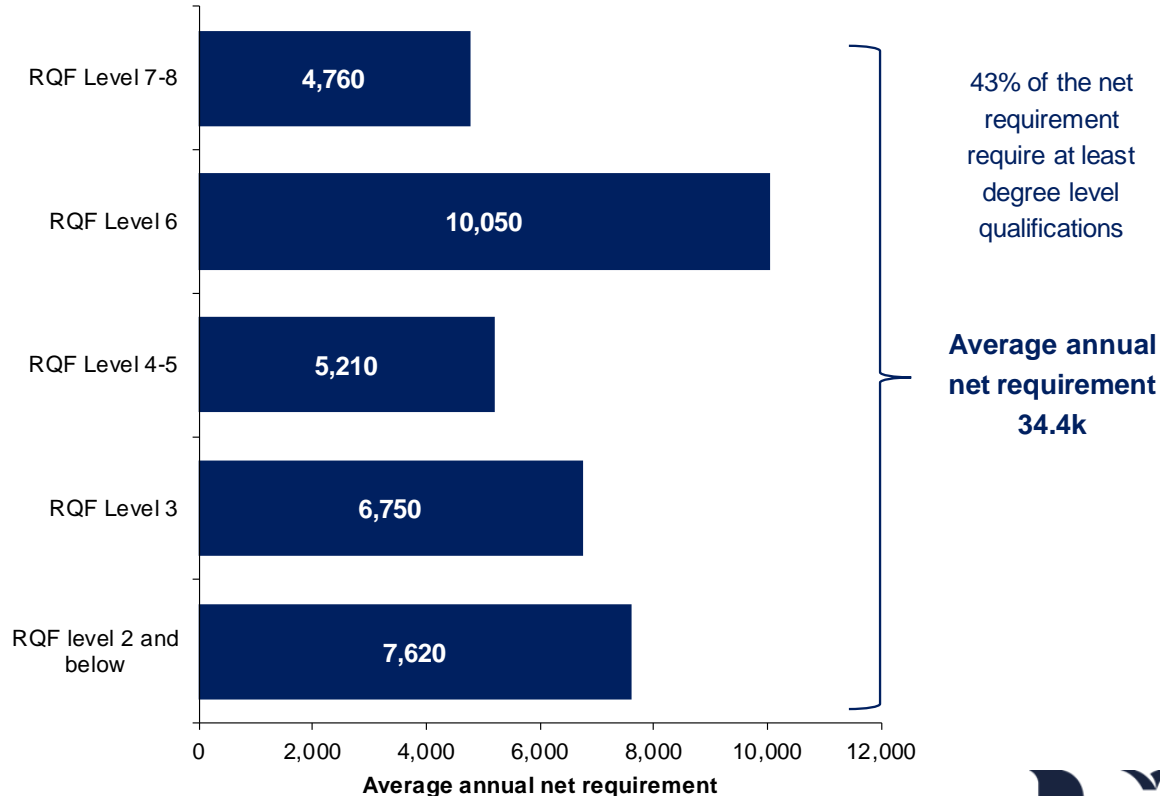


# Key findings

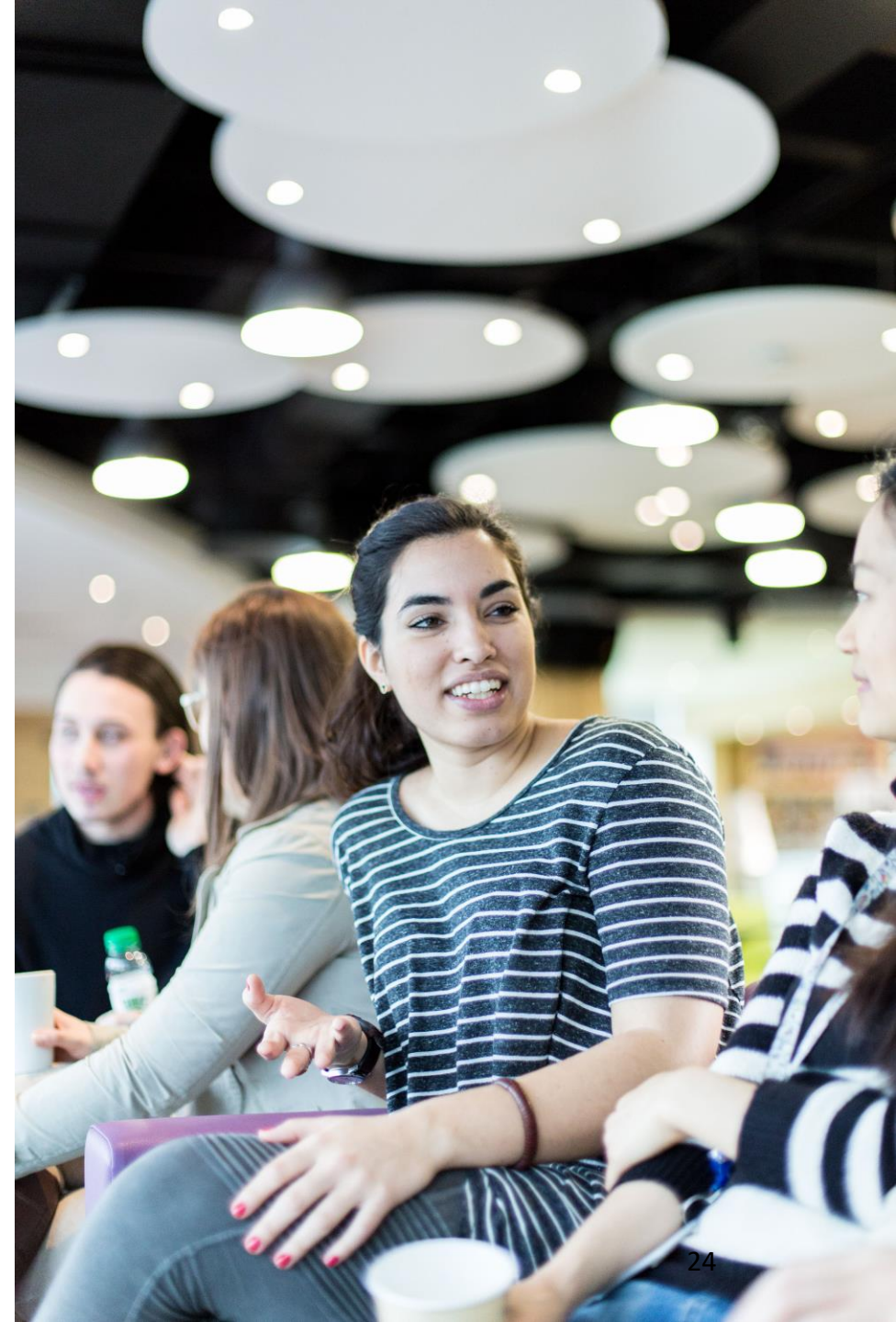


# Demand from education and migration by qualification

Average annual net requirement from education and migration by qualification (RQF), NI, 2023-2033



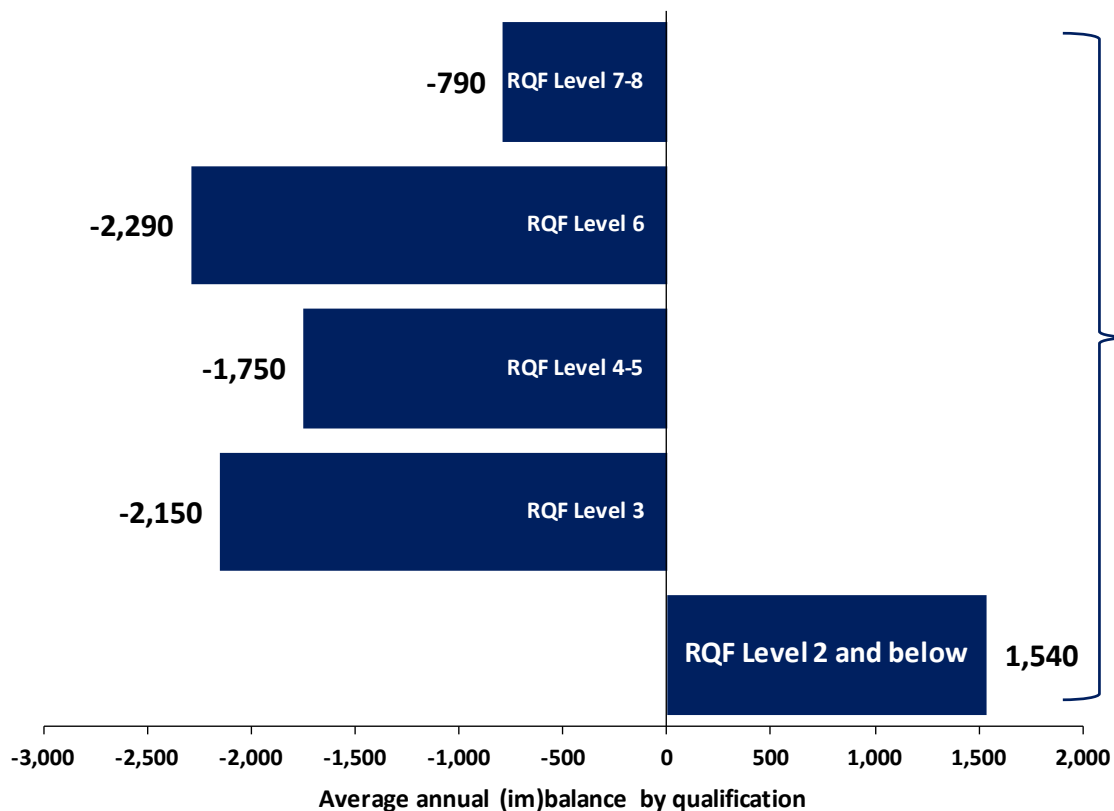
Source: UUEPC





# Qualification (im)balances

Average annual (im)balance by qualification (RQF), NI, 2023-2033



An average overall undersupply of -5,440 individuals per annum indicates a need to reactivate underutilised labour and/or increase the migrant labour supply.

Source: UUEPC

**Note:** The supply gaps in the above chart have been calculated based on 'net supply'. This takes account of migration patterns amongst qualifiers at NI Higher Education Institutions (HEI) and NI domiciled qualifiers qualifying from Great Britain (GB) HEIs, in addition to labour force participation.

**Note:** For some qualifiers it may be the case they require additional employability skills before accessing employment in a job commensurate to their level of qualification.

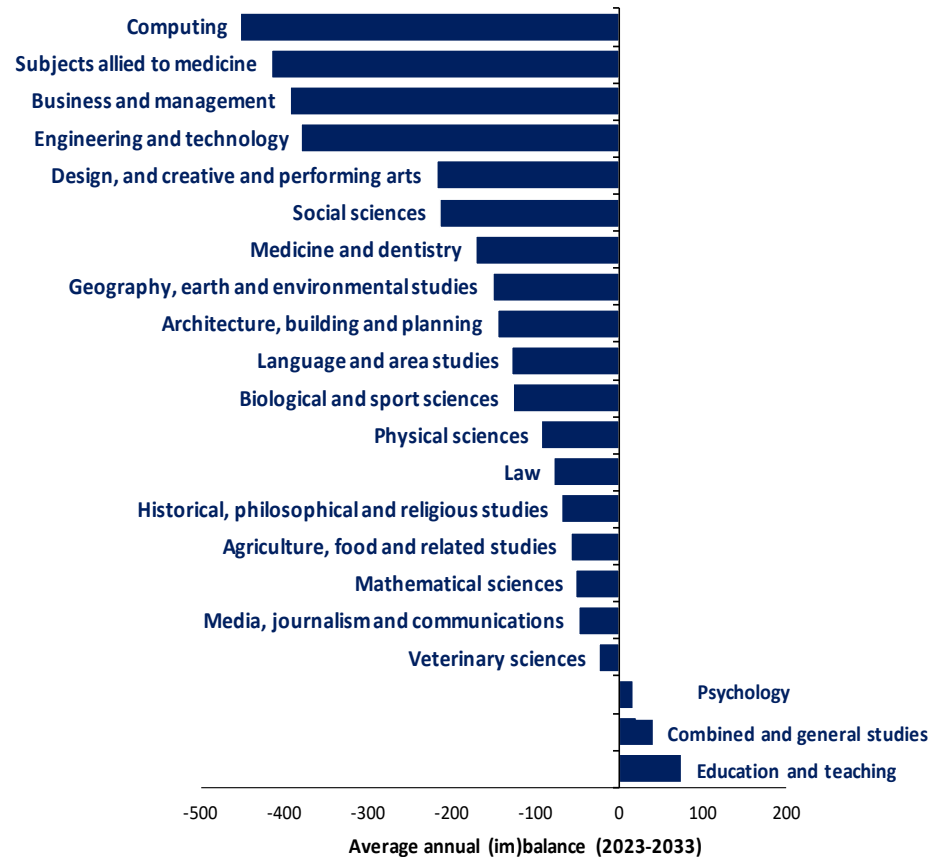


Economic Policy  
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## Degree subjects

(Im)balance by subject (broad), RQF Level 6+, NI, 2023-2033 (annual average)

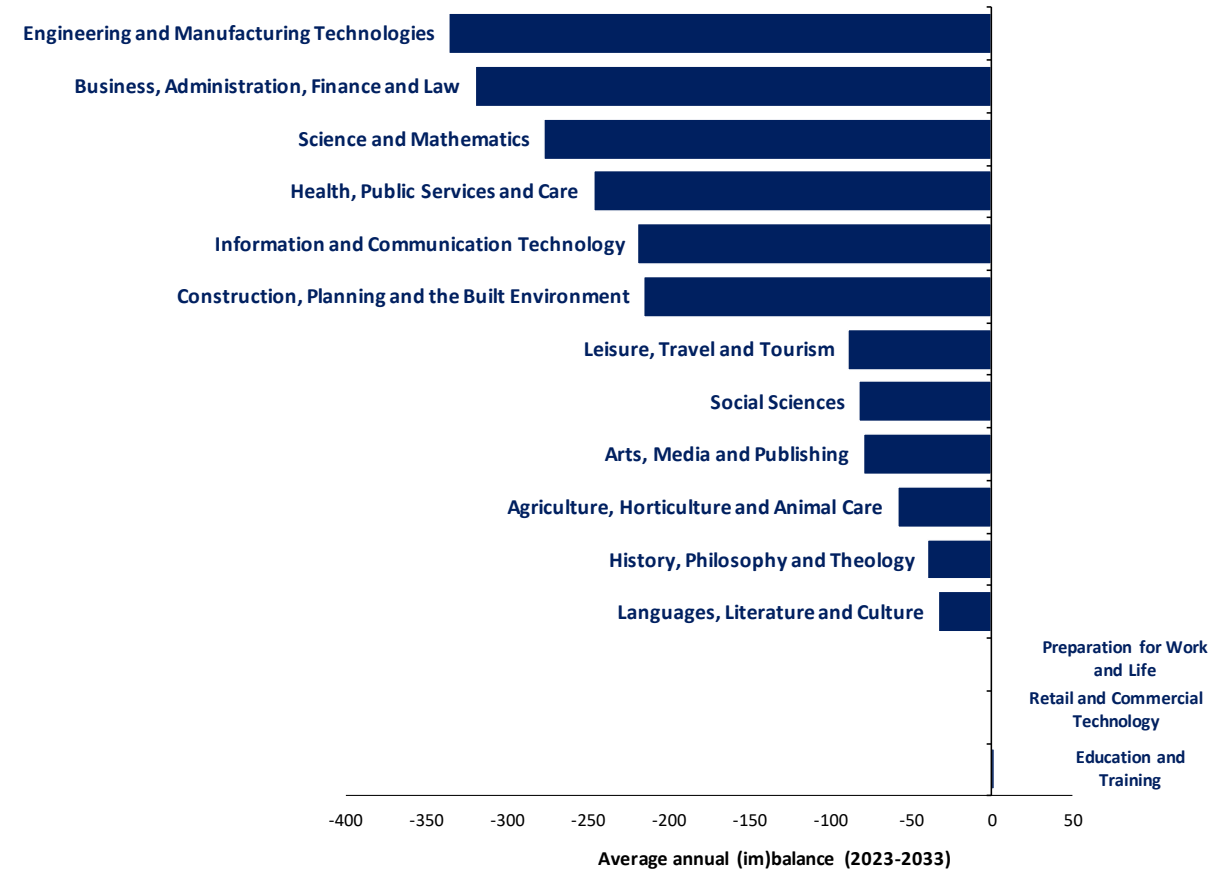


Source: UUEPC

# Subject (im)balances

## Sub-degree subjects

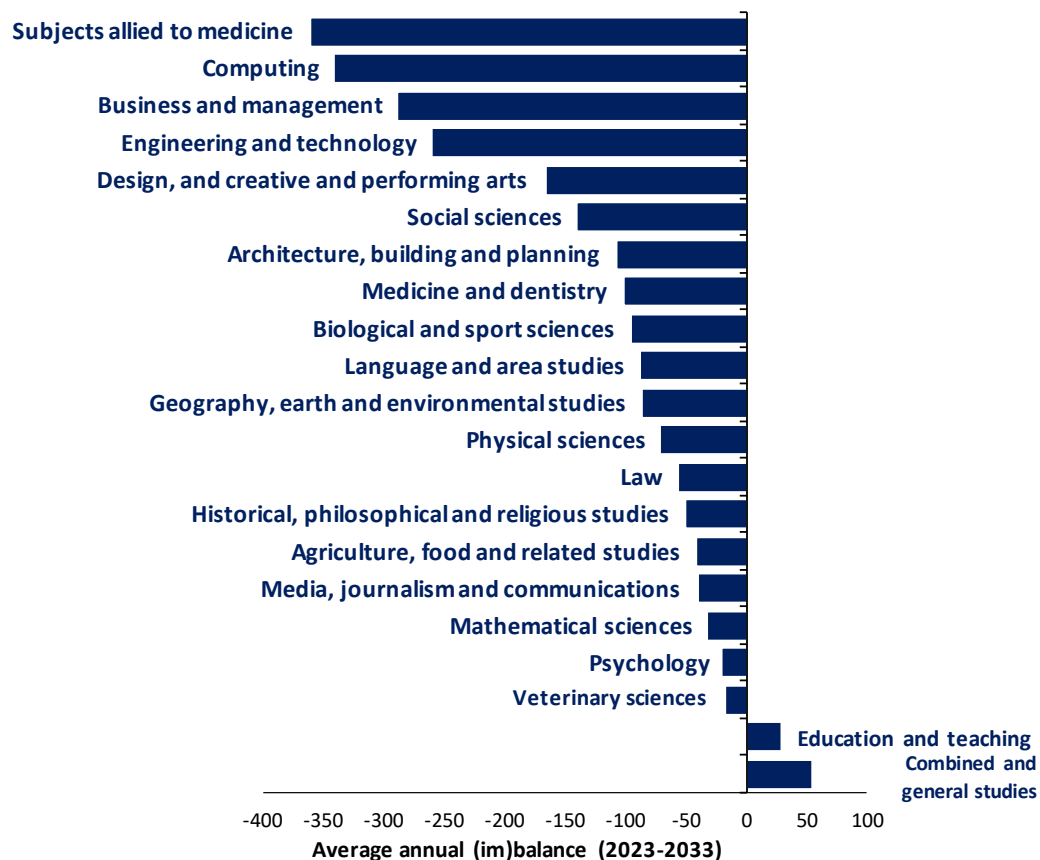
(Im)balance by subject (broad), RQF Level 4-5, NI, 2023-2033 (annual average)



Source: UUEPC

## Undergraduate (im)balance

(Im)balance by subject (broad), RQF Level 6, NI, 2023-2033 (annual average)

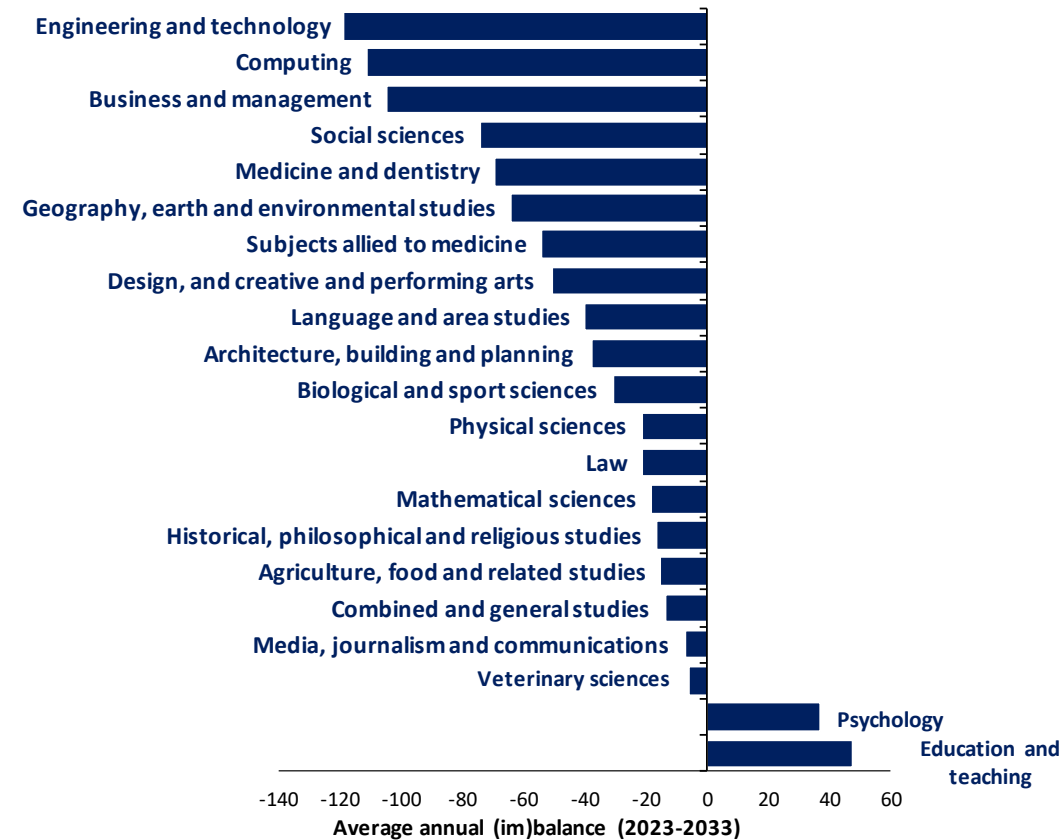


Source: UUEPC

# Subject (im)balances - disaggregated

## Postgraduate (im)balance

(Im)balance by subject (broad), RQF Level 7-8, NI, 2023-2033 (annual average)



Source: UUEPC



# Demand side

# Section 2



# Demand side concepts

# Key definitions

**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 job).

**Net replacement demand** is the difference between all leavers from employment – to retirement, inactivity, unemployment, other jobs and out migration - and joiners to employment – from unemployment, inactivity (excluding education leavers) and other jobs.

**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.



# Net requirement

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.

# Annual average labour market flows, 2023-2033 (people based)



Source: UUEPC

Note: Figures may not sum due to rounding.



# Total demand from education and migration by sector & occupation



# Sector and occupation demand

To determine the (im)balance of qualifications and subjects a detailed analysis of the demand for **labour** across both sector and occupation classifications has been conducted. The analysis is based on employment forecasts across sectors and occupations.

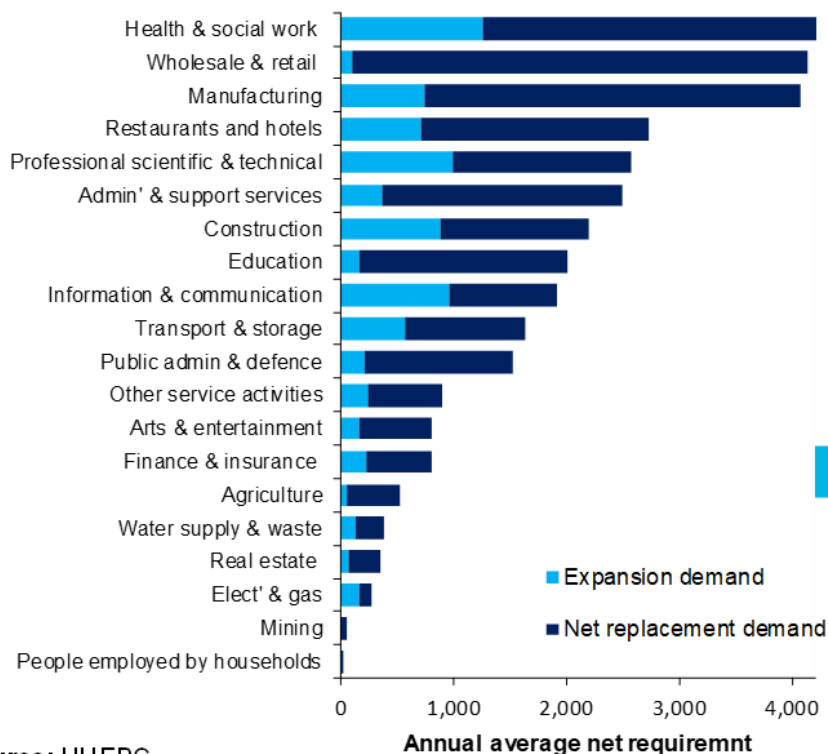
This section will present demand from net requirement from education and migration by sector and occupation, under the high growth scenario.

Recall, **expansion demand** is directly related to the growth (or reduction) in size of the sector and **net replacement demand** refers to the number of positions created from 'churn' which cannot be filled within the existing labour market.

The **annual average net requirement from education and migration** does not include the positions to be filled by labour market participants from other sectors, from unemployment or from economic inactivity.

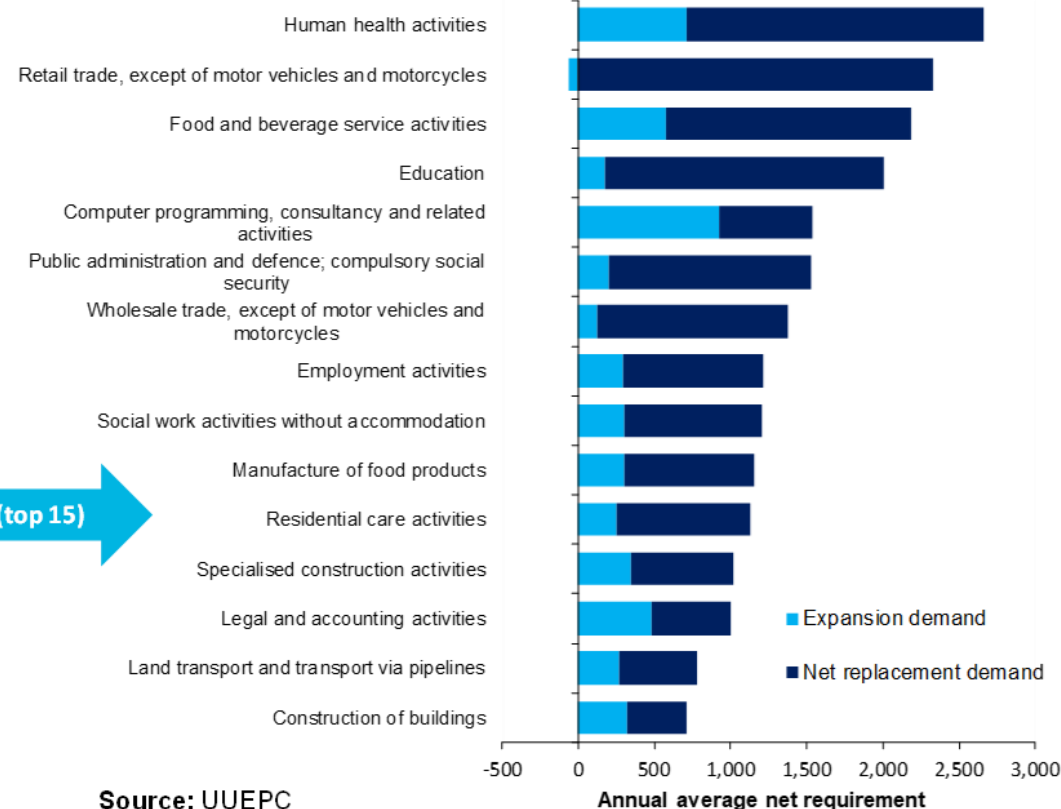
# Demand from education & migration by sector

**Average annual net requirement from education and migration by sector (1-digit), NI, 2023-2033**



Source: UUEPC

**Average annual net requirement from education and migration by sector (top 15, 2-digit), NI, 2023-2033**



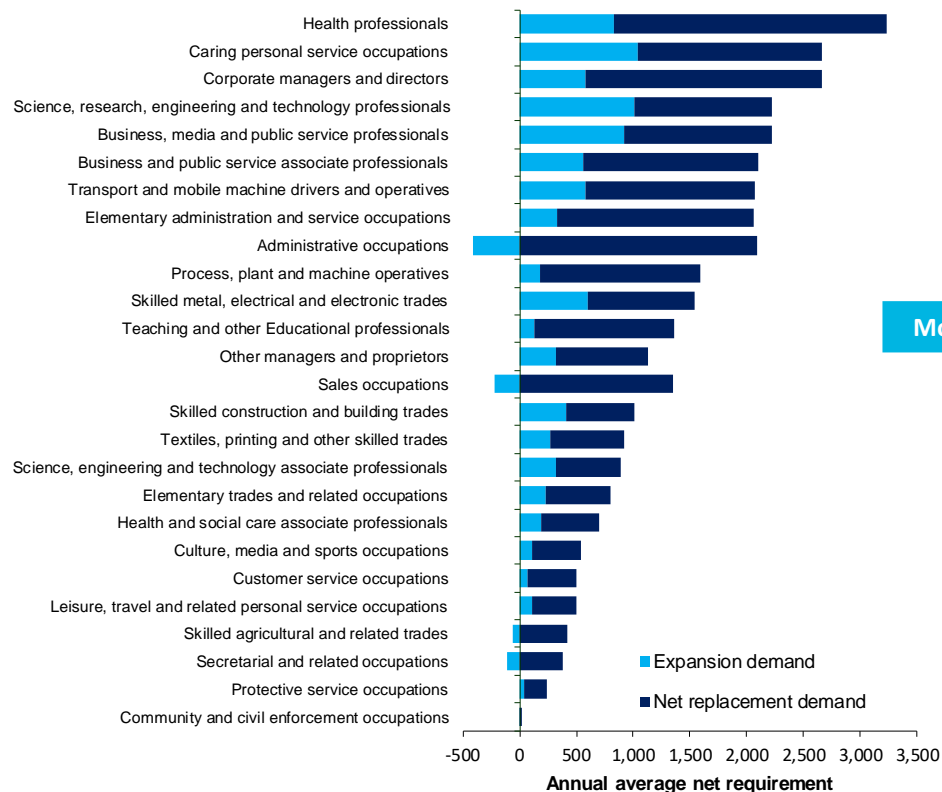
Source: UUEPC

More detailed sectors (top 15)

**Net requirement from education and migration** refers only to the number of people required to meet demand from education institutions and migration flows. It is possible a sector may be expected to decline (i.e. negative expansion demand - such as retail trade except motor vehicles and motorcycles on RHS chart) but still demand individuals from education and migration via the need for replacement demand. In fact, the retail trade except of motor vehicles and motorcycles sector has the second largest demand across all detailed sectors, despite being expected to decline over the coming decade.

# Demand from education & migration by occupation

**Average annual net requirement from education and migration by occupation (2-digit), NI, 2023-2033**



Source: UUEPC

More detailed occupations (top 15)

**Average annual net requirement from education and migration by occupation (top 15, 3-digit), NI, 2023-2033**



Source: UUEPC

**Net requirement from education and migration** refers only to the number of people required to meet demand from education institutions and migration flows. It possible an occupation may be expected to decline (i.e. negative expansion demand – such as administrative occupations on LHS chart) but still demand individuals from education and migration via the need for replacement demand (i.e. replacing workers who have left to retirement, sickness, family commitments etc.).





**Demand from education and migration by  
qualification across sectors & occupations**

# Qualification demand

To determine the (im)balance of qualifications and subjects within the future labour market a detailed analysis of the demand for **qualifications** across sector and occupation classifications has been conducted.

The analysis is based on current and projected skills mix across sectors and occupations\* and jobs forecasts across sectors and occupations from the high growth scenario\*\*.

This section will present the following:

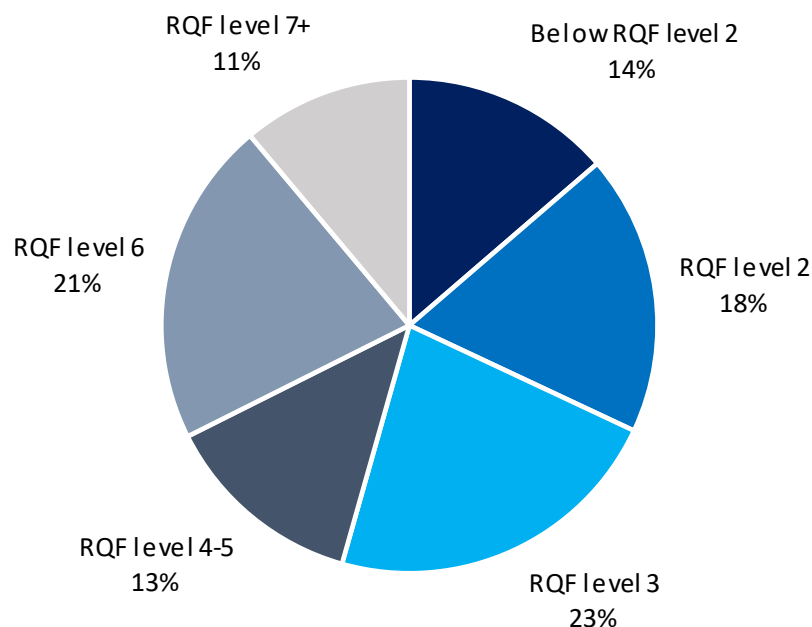
1. Changing skills mix over time of those in work.
2. Growth in sectors with higher concentration of graduates.
3. Net requirement (demand) by qualification (RQF).
4. Net requirement by sector and qualification (RQF level 7-8, RQF level 6 and RQF level 4-5).
5. Net requirement by occupation and qualification (RQF level 7-8, RQF level 6 and RQF level 4-5).

\* Annex B1 provides a detailed list of the current skills mix by sector and occupation.

\*\* Annex A1 and A2 provide results for the baseline scenario.

# Changing skills mix of the employed

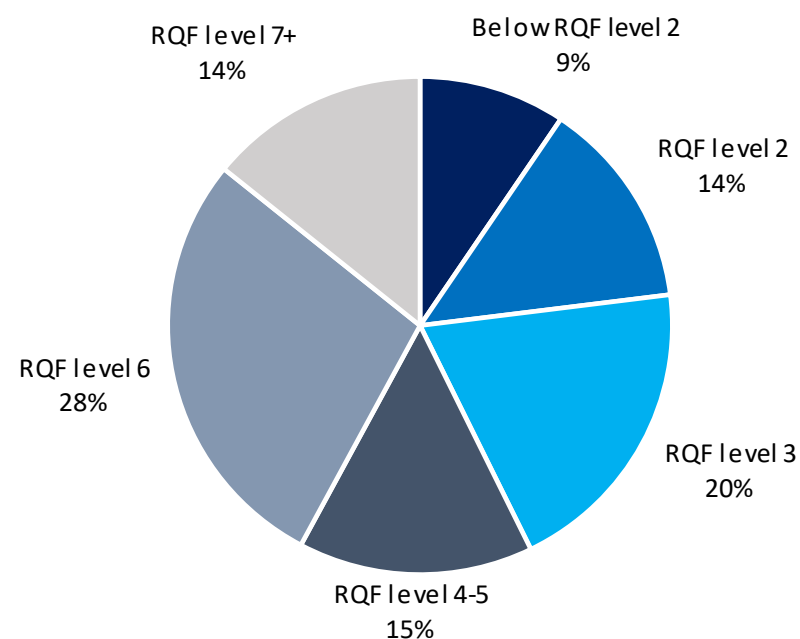
Employed qualification profile (RQF) aged 16+, NI, 2023



**Source:** Labour Force Survey, UUEPC analysis

**Note:** Figures are based on a 4-quarter rolling average

Employed qualification profile (RQF) aged 25-39, NI, 2023



**Source:** Labour Force Survey, UUEPC analysis

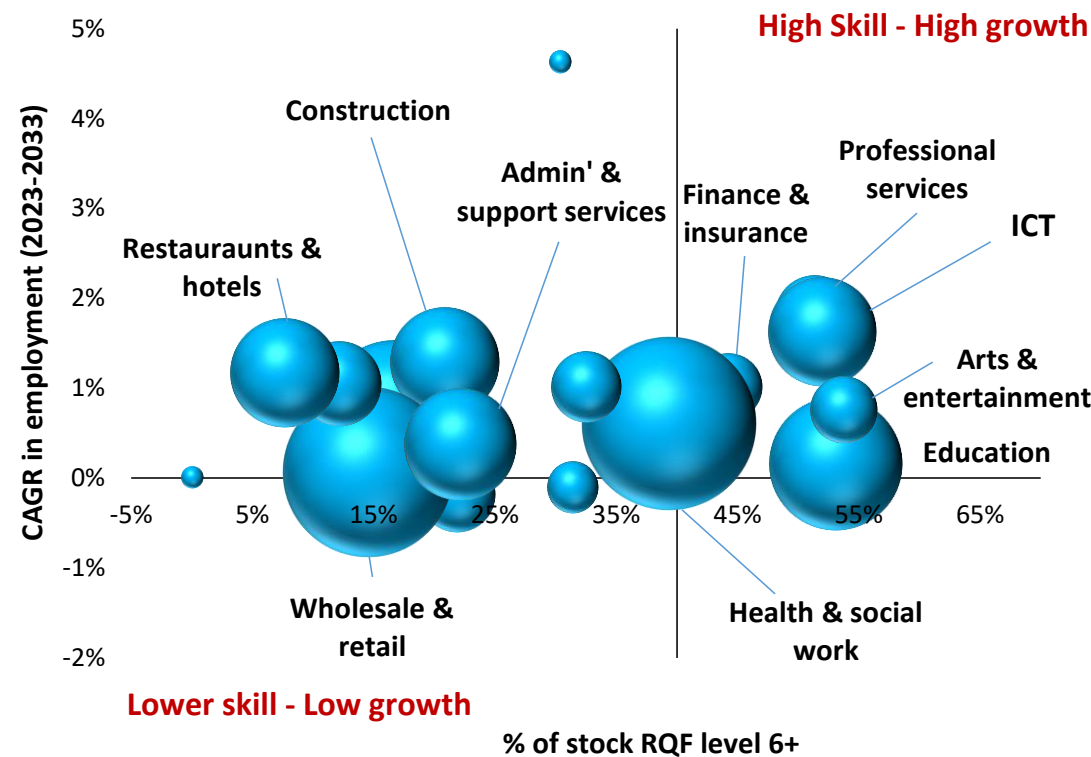
**Note:** Figures are based on a 4-quarter rolling average

The skills mix of people in employment is changing over time. The proportion of people in employment aged 16 and over with an RQF level 6+ qualification is currently 32%. However, focusing on the skills mix of younger people in employment (aged 25-39) the figure is 10 percentage points higher, at 42%. Similarly, 32% of the current stock of employed people have an RQF Level 2 or below qualification, compared to only 23% of those aged 25-39. Therefore, suggesting an increasingly higher weight towards higher qualified individuals.



# High qualifications in growth sectors

Employment by sector, employment growth vs % of stock  
RQF level 6+, NI, 2023

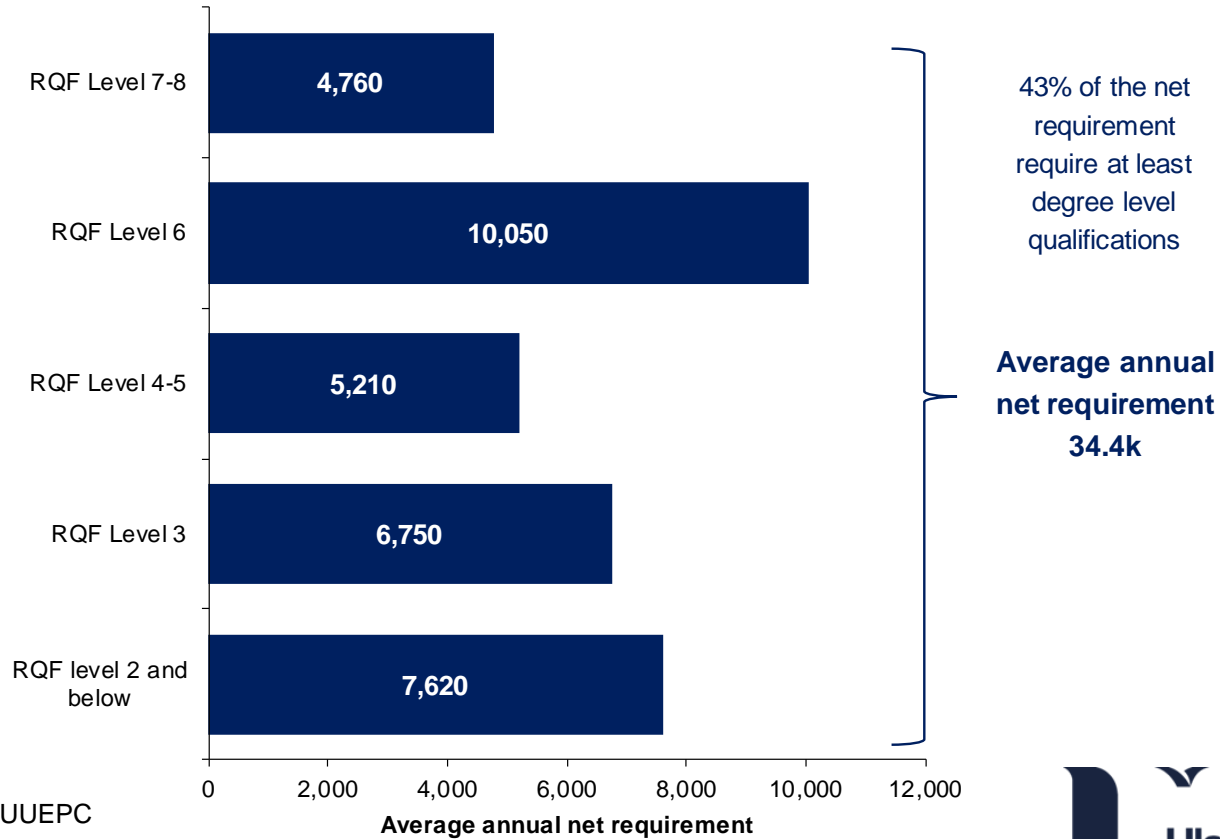


Source: Labour Force Survey, UUEPC analysis  
Note: Stock figures are based on a 4-quarter rolling average



# Demand from education and migration by qualification

Average annual net requirement from education and migration by qualification (RQF), NI, 2023-2033

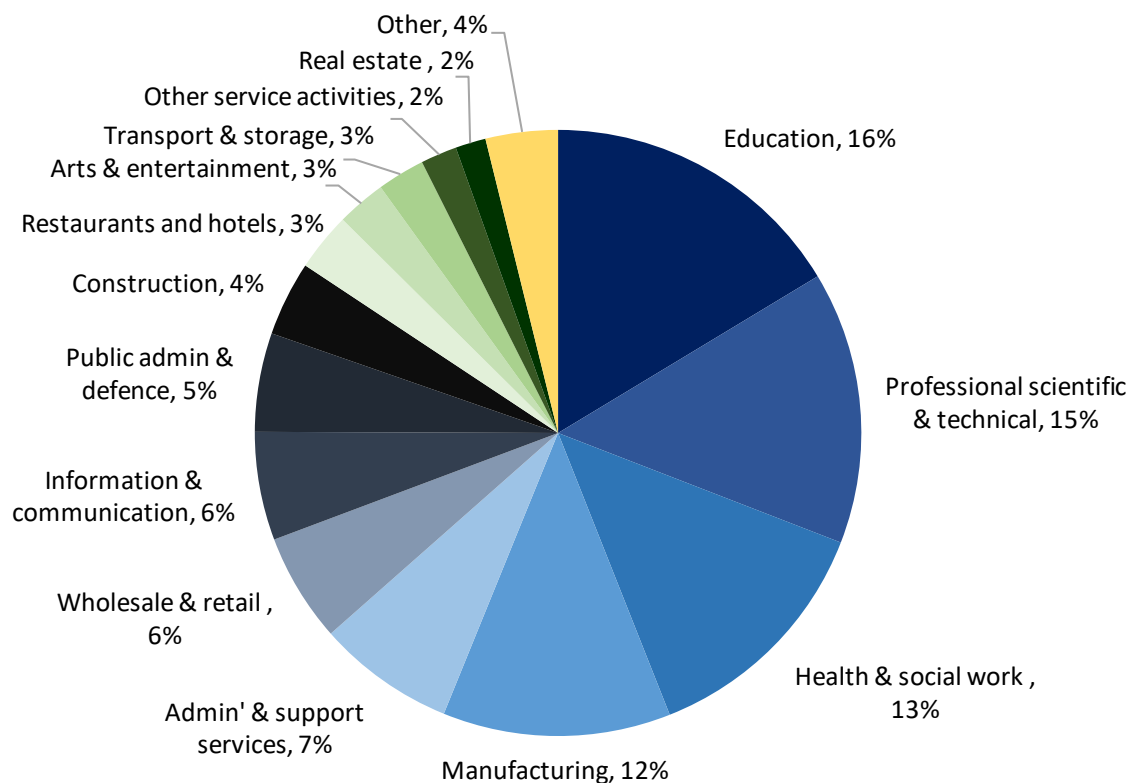


Source: UUEPC



# Demand from education & migration by sector RQF L7-8

RQF level 7-8 net requirement by sector (1-digit), NI (annual average 2023-2033)



The education sector requires the largest quantum of RQF level 7-8 qualifiers, accounting for 16% of the net requirement. This is followed by professional services (15%), health & social work (13%), and manufacturing (12%).

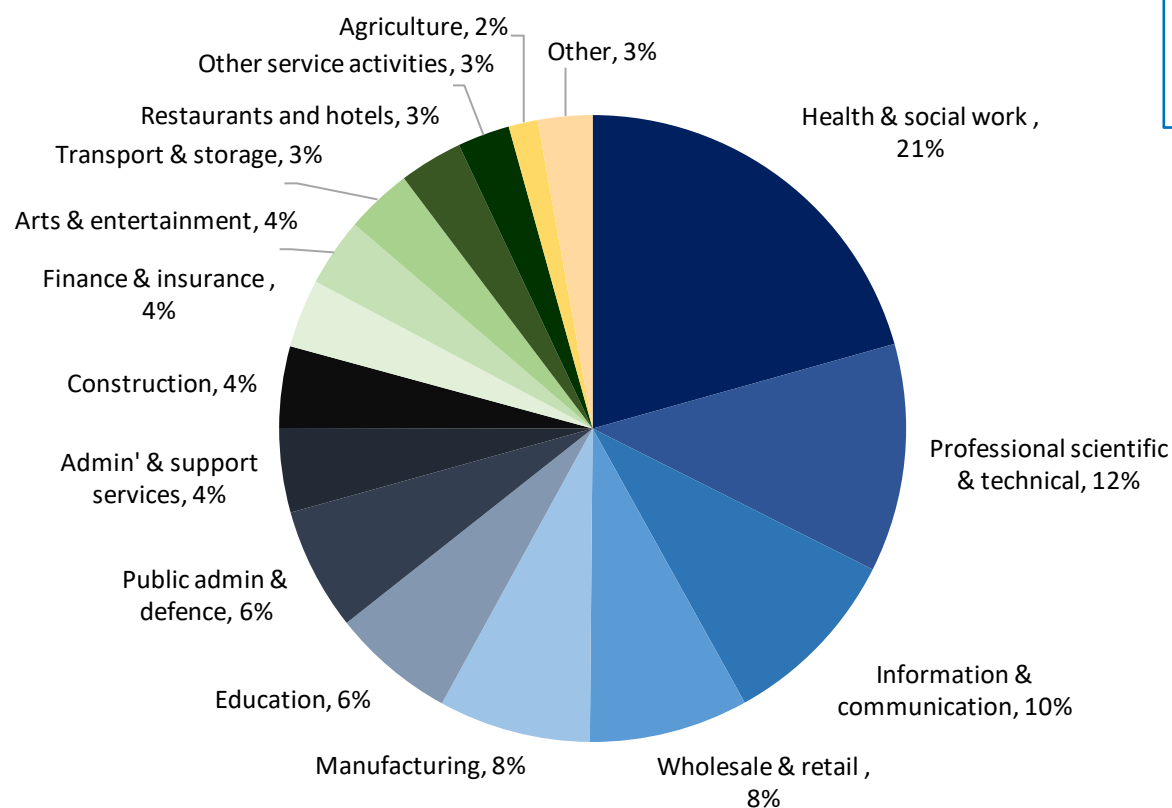
RQF level 7-8 net requirement by sector (top 15, 2-digit), NI (annual average 2023-2033)

Sector (2-digit)	% of RQF level 7-8 net requirement
Education	16.4%
Human health activities	8.3%
Public admin, defence, social sec	5.3%
Legal and accounting activities	5.2%
Computer programming and consultancy	5.1%
Employment activities	4.8%
Retail trade, except vehicles	3.6%
Social work without accommodation	3.1%
Architerctural and engineering	3.1%
Manufacture of pharmaceuticals	3.0%
Food and beverage service activities	2.8%
Manufacture of other transport	2.5%
Head offices; management consultancy	2.4%
Civil engineering	2.4%
Manuf of machinery n.e.c.	2.0%



# Demand from education & migration by sector RQF L6

**RQF level 6 net requirement by sector (1-digit), NI (annual average 2023-2033)**



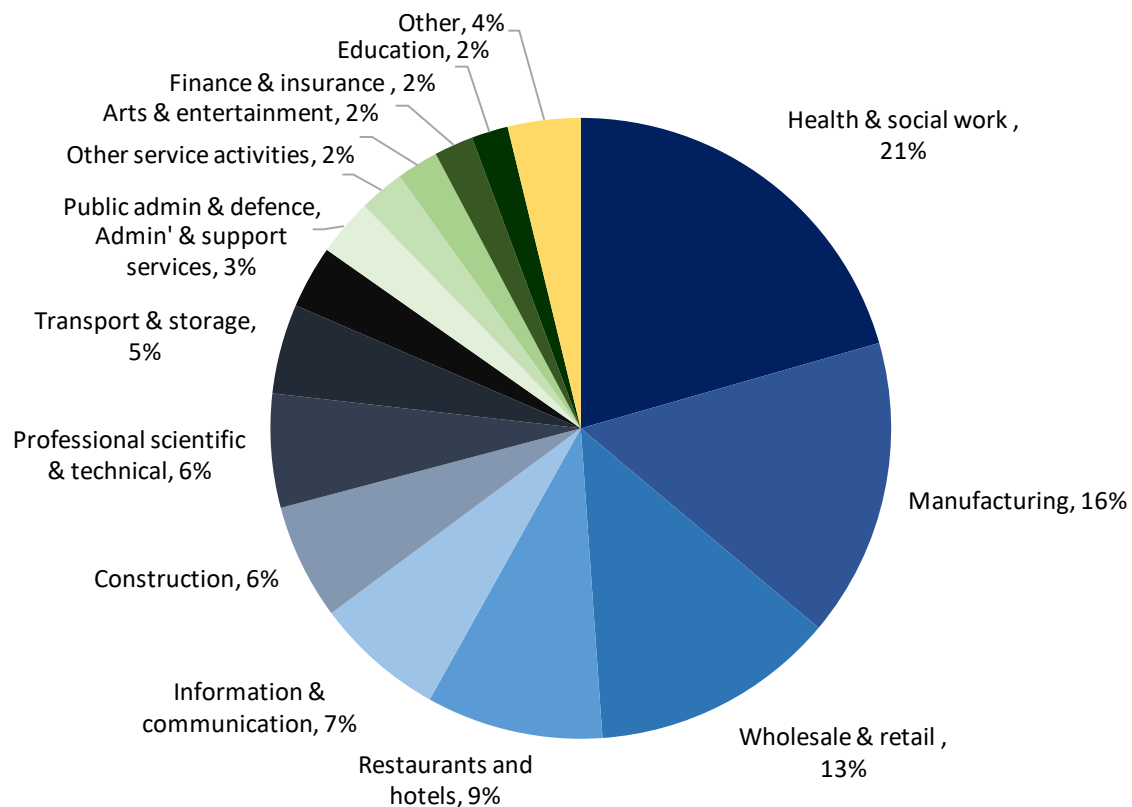
The health and social work sector requires the largest quantum of RQF level 6 qualifiers, accounting for 21% of the net requirement. This is followed by professional services (12%), IT (12%), and wholesale & retail (10%).

**RQF level 6 net requirement by sector (top 15, 2-digit), NI (annual average 2023-2033)**

Sector (2-digit)	% of RQF level 6 net requirement
Human health activities	13.5%
Computer programming and consultancy	7.9%
Education	6.4%
Public admin, defence, social sec	6.3%
Social work without accommodation	5.1%
Retail trade, except vehicles	4.7%
Legal and accounting activities	4.5%
Employment activities	3.0%
Wholesale trade, except vehicles	3.0%
Food and beverage service activities	2.9%
Head offices; management consultancy	2.6%
Sports, amusement, recreation	2.5%
Manufacture of food products	2.3%
Other prof, scientific and technical	2.3%
Auxiliary to financial and insurance	2.2%

# Demand from education & migration by sector RQF L4-5

RQF level 4-5 net requirement by sector (1-digit), NI (annual average 2023-2033)



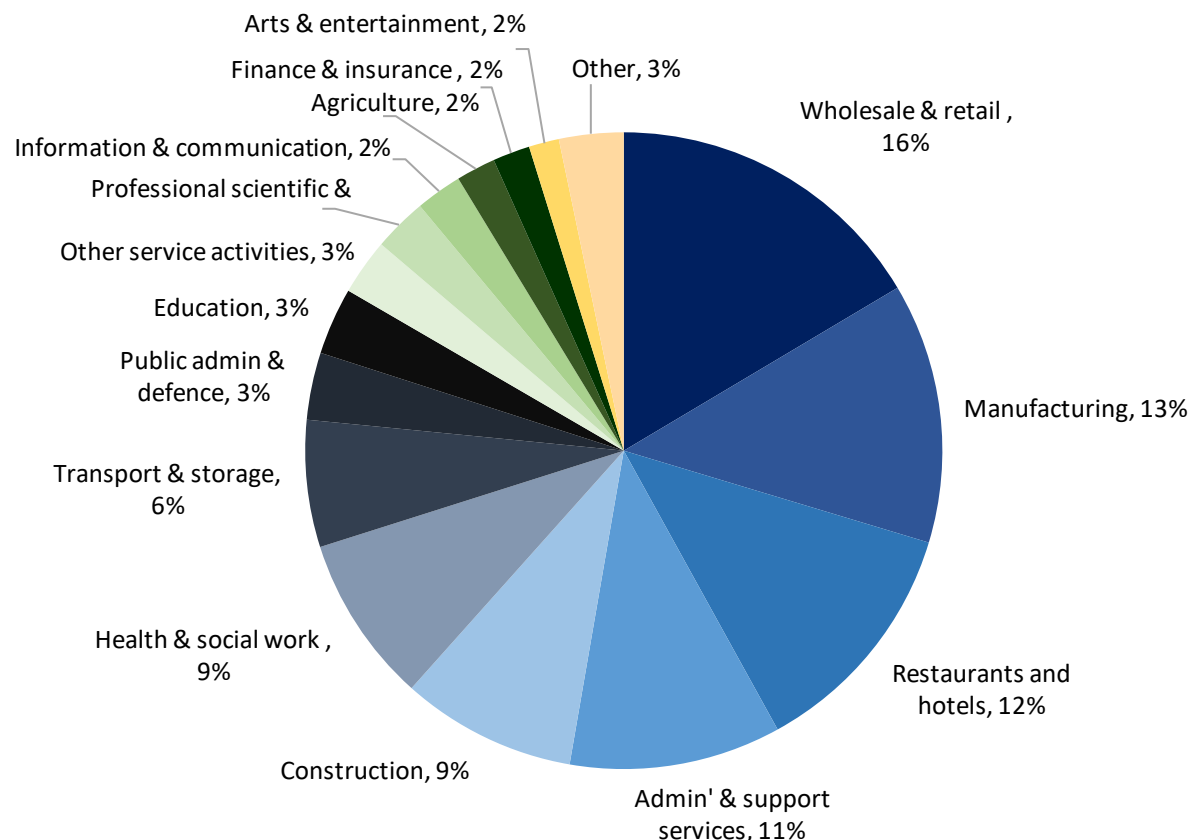
The health & social work sector requires the largest quantum of RQF level 4-5 qualifiers, accounting for 21% of the total net requirement. This is followed by manufacturing (16%), wholesale and retail (13%) and restaurants & hotels (9%).

RQF level 4-5 net requirement by sector (top 15, 2-digit), NI (annual average 2023-2033)

Sector (2-digit)	% of RQF level 4-5 net requirement
Human health activities	10.2%
Retail trade, except vehicles	7.1%
Food and beverage service activities	6.8%
Residential care activities	6.3%
Manufacture of food products	5.8%
Computer programming and consultancy	5.2%
Wholesale trade, except vehicles	4.5%
Social work without accommodation	4.1%
Public admin, defence, social sec	3.0%
Specialised construction activities	2.9%
Legal and accounting activities	2.6%
Warehousing & support for transport	2.4%
Accommodation	2.4%
Construction of buildings	2.3%
Education	1.9%

# Demand from education & migration by sector RQF L3 & below

**RQF level 3 and below net requirement by sector (1-digit), NI (annual average 2023-2033)**



The wholesale and retail sector requires the largest quantum of RQF level 3 and below qualifiers, accounting for 16% of the total net requirement. This is followed by manufacturing (13%) restaurants and hotels (12%), and admin' & support services (11%).

**RQF level 3 and below net requirement by sector (top 15, 2-digit), NI (annual average 2023-2033)**

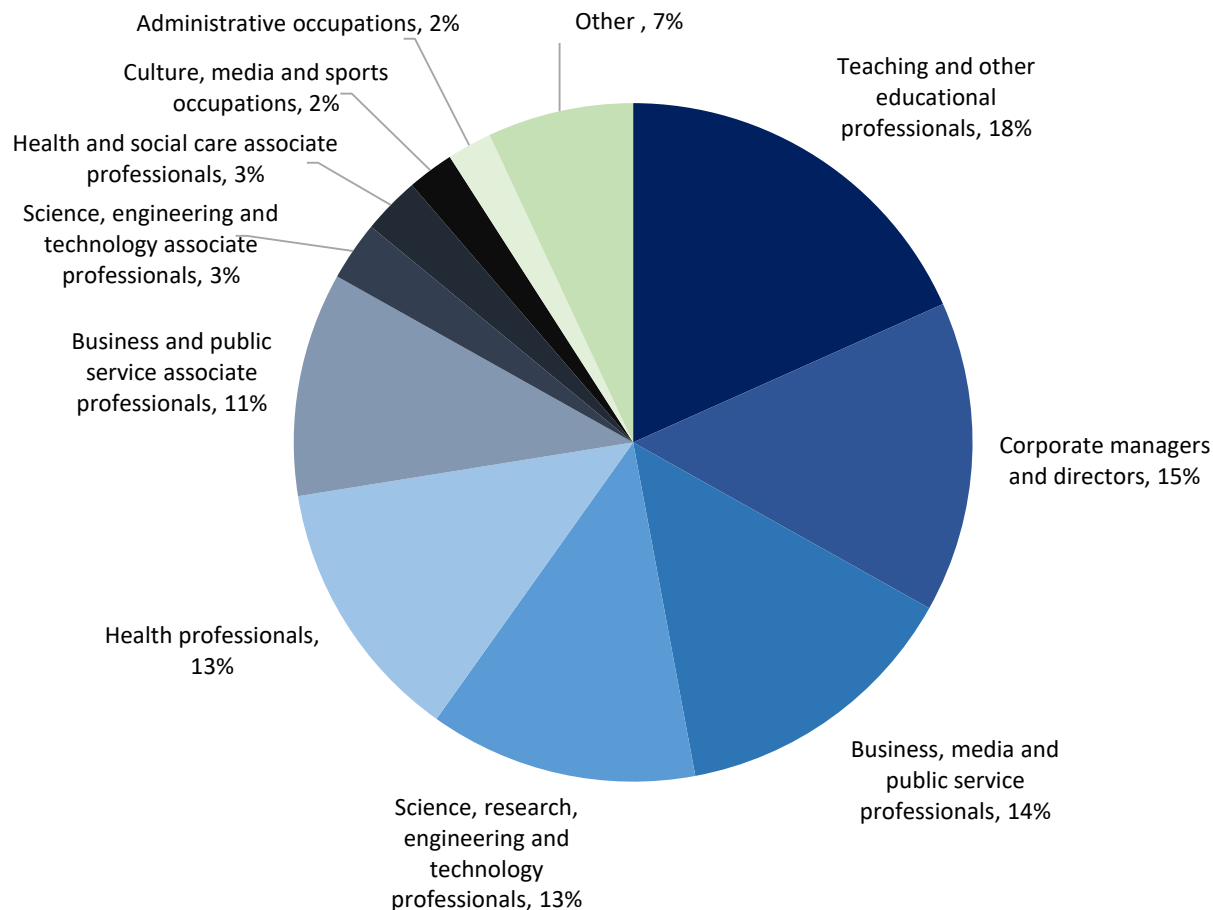
Sector (2-digit)	% RQF level 3 and below net requirement
Food and beverage service activities	9.8%
Retail trade, except vehicles	8.7%
Wholesale trade, except vehicles	5.2%
Specialised construction activities	5.2%
Manufacture of food products	4.2%
Employment activities	4.1%
Residential care activities	3.6%
Public admin, defence, social sec	3.4%
Education	3.4%
Land transport inc via pipelines	3.1%
Construction of buildings	2.7%
Human health activities	2.6%
Office admin, support and other	2.6%
Wholesale retail trade repair vehcls	2.5%
Accommodation	2.5%

Source: UUEPC



# Demand from education & migration by occ RQF L7-8

**RQF level 7-8 net requirement by occupation (2-digit), NI (annual average 2023-2033)**



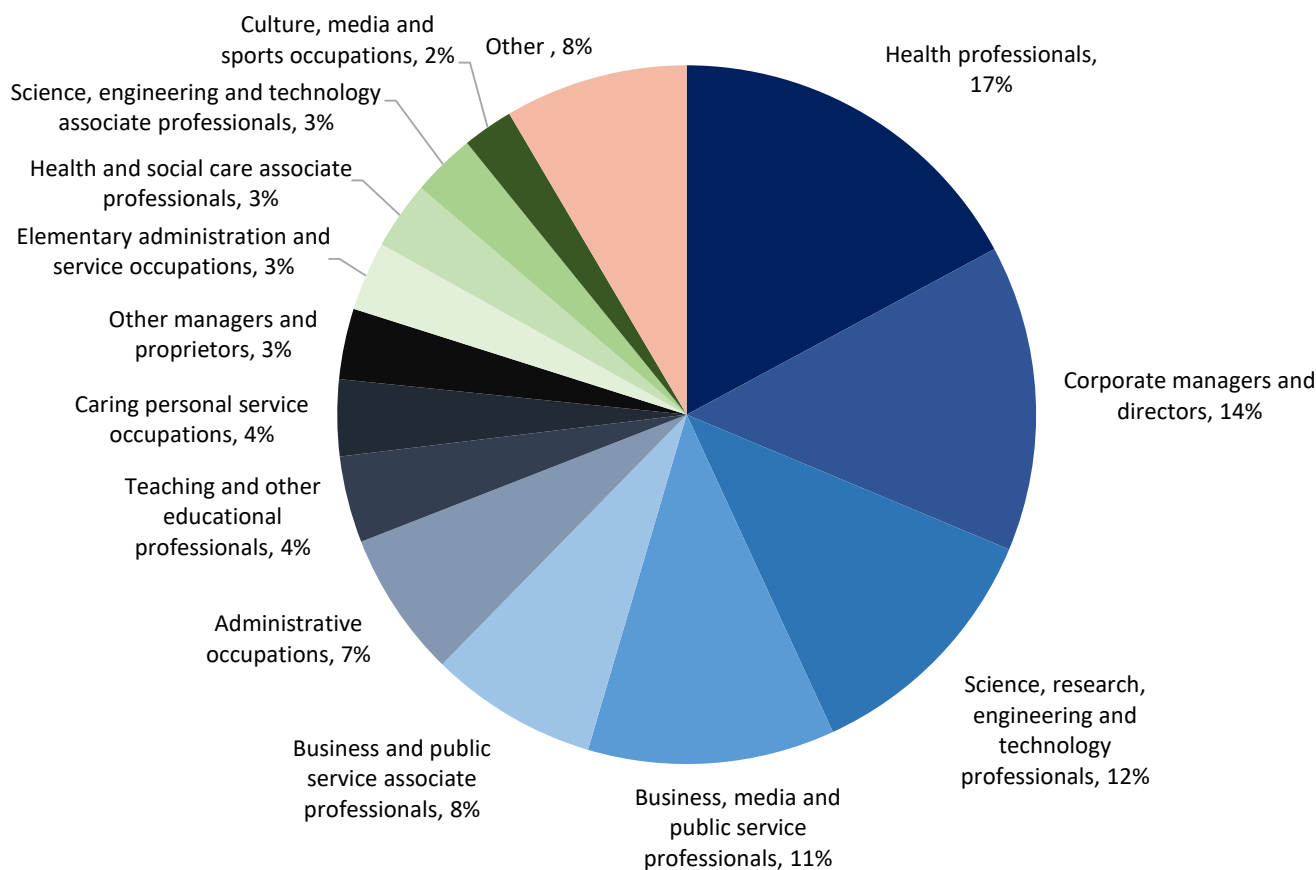
Teaching & other educational professionals require the largest quantum of RQF level 7-8 qualifiers, accounting for 18% of the total net requirement. This is followed by corporate managers & directors (15%) and business, media & public service professionals (14%).

**RQF level 7-8 net requirement by occupation (top 15, 3-digit), NI (annual average 2023-2033)**

Occupation (3-digit)	% of RQF level 7-8 net requirement
Teaching professionals	17.2%
Functional Managers and Directors	7.1%
Information technology professionals	5.4%
Production Managers and Directors	4.7%
Nursing professionals	4.3%
Medical practitioners	3.6%
Finance professionals	3.6%
Business Associate Professionals	3.4%
Sales, Marketing and Related Associate Professionals	3.1%
Engineering professionals	2.7%
HR, Training and Other Vocational Associate Guidance Professionals	2.6%
Legal professionals	2.6%
Business, research and administrative professionals	2.4%
Welfare professionals	2.3%
Therapy professionals	2.3%

# Demand from education & migration by occ RQF L6

**RQF level 6 net requirement by occupation (2-digit), NI (annual average 2023-2033)**



Health professionals require the largest quantum of RQF level 6 qualifiers, accounting for 17% of the total net requirement. This is followed by corporate managers & directors (14%) and science, research, engineering & technology professionals (12%).

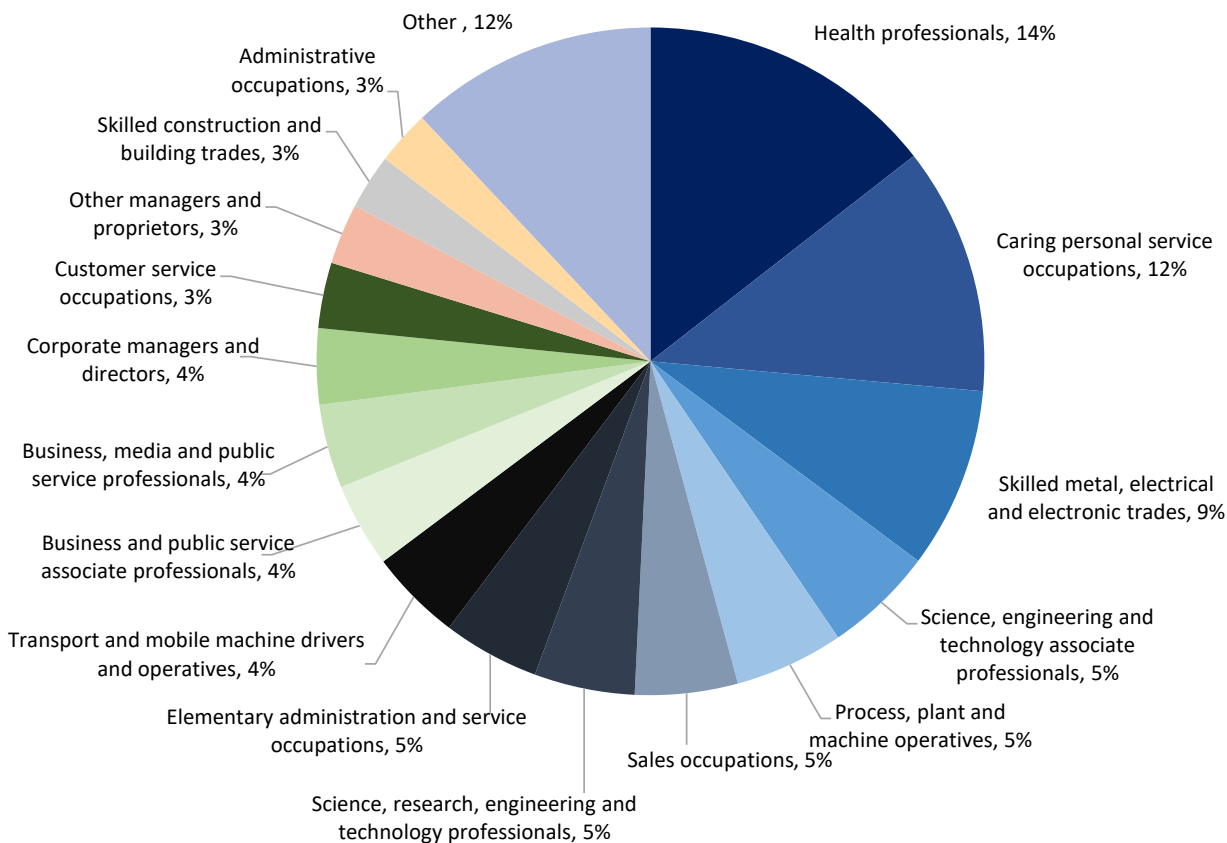
**RQF level 6 net requirement by occupation (top 15, 3-digit), NI (annual average 2023-2033)**

Occupation (3-digit)	% of RQF level 6 net requirement
Nursing professionals	9.8%
Information technology professionals	7.6%
Functional Managers and Directors	7.2%
Finance professionals	3.7%
Teaching professionals	3.4%
Administrative Occupations: Government and Related Organisations	3.3%
Medical practitioners	3.2%
Sales, Marketing and Related Associate Professionals	3.1%
Caring Personal Services	2.9%
Production Managers and Directors	2.7%
Managers and Directors in Retail and Wholesale	2.4%
Other health professionals	2.2%
Welfare and Housing Associate Professionals	1.9%
Business Associate Professionals	1.9%
Business, research and administrative professionals	1.9%

Source: UUEPC

# Demand from education & migration by occ RQF L4-5

**RQF level 4-5 net requirement by occupation (2-digit), NI (annual average 2023-2033)**



Health professionals require the largest quantum of RQF level 4-5 qualifiers, accounting for 14% of the total net requirement. This is followed by caring personal service occupations (12%) and skilled metal, electrical & electronic trades (9%).

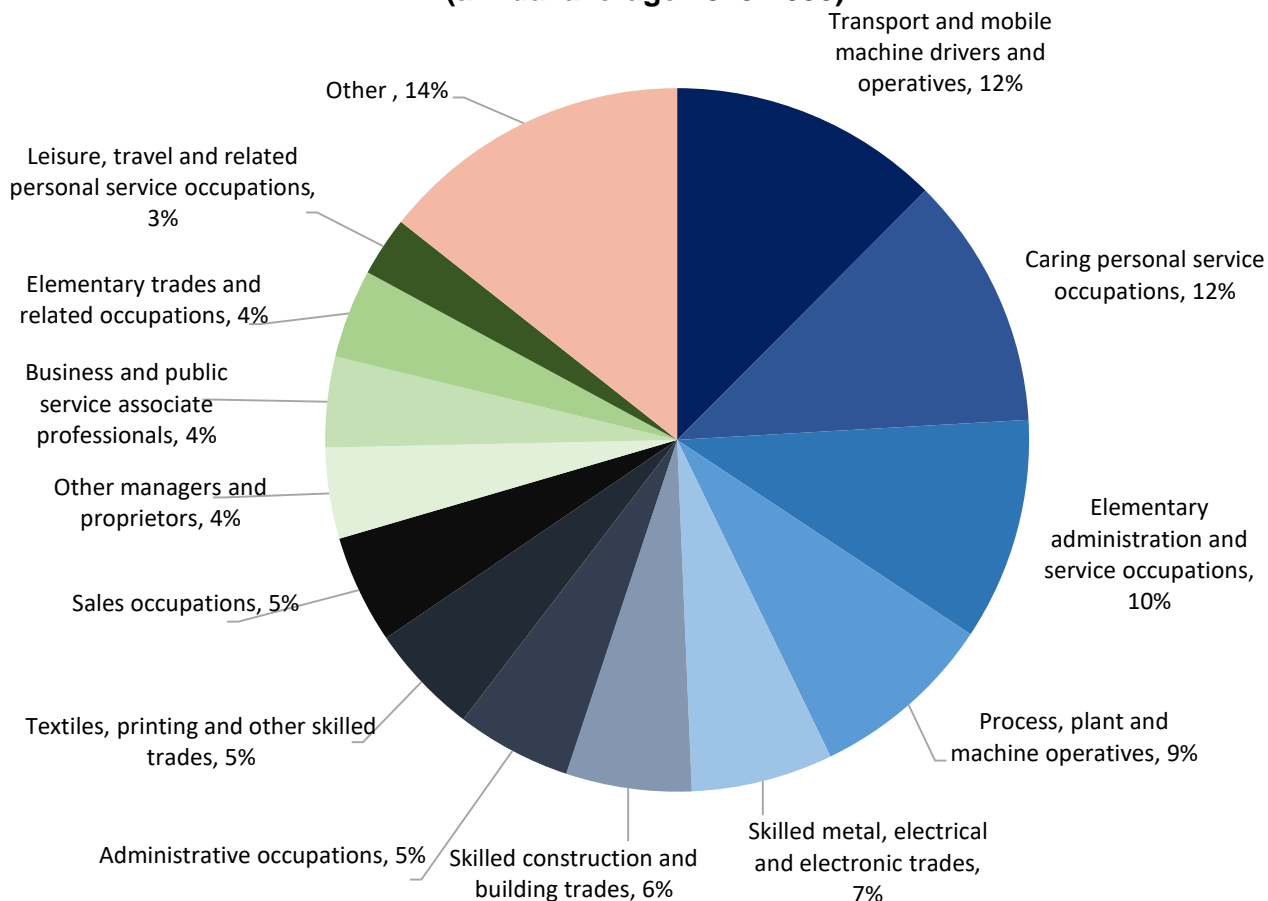
**RQF level 4-5 net requirement by occupation (top 15, 3-digit), NI (annual average 2023-2033)**

Occupation (3-digit)	% of RQF level 4-5 net requirement
Nursing professionals	11.4%
Caring Personal Services	11.0%
Sales Assistants and Retail Cashiers	4.0%
Metal Machining, Fitting and Instrument Making Trades	3.8%
Road Transport Drivers	3.6%
Information technology professionals	3.3%
Customer Service Occupations	3.1%
Process Operatives	3.0%
Information Technology Technicians	2.5%
Science, Engineering and Production Technicians	2.4%
Electrical and Electronic Trades	2.3%
Elementary Storage Occupations	2.2%
Construction and Building Trades	1.9%
Finance professionals	1.8%
Food Preparation and Hospitality Trades	1.8%



# Demand from education & migration by occ RQF L3 & below

**RQF level 3 and below net requirement by occupation (2-digit), NI  
(annual average 2023-2033)**



Transport & mobile machine drivers & operatives and caring personal service occupations require the largest quantum of RQF level 3 and below qualifiers, accounting for 12% of total each. These are followed by elementary admin' and service occupations (10%).

**RQF level 3 and below net requirement by occupation (top 15, 3-digit), NI  
(annual average 2023-2033)**

Occupation (3-digit)	% of RQF level 3 and below net requirement
Road Transport Drivers	10.1%
Caring Personal Services	8.9%
Process Operatives	5.1%
Food Preparation and Hospitality Trades	4.6%
Construction and Building Trades	4.4%
Sales Assistants and Retail Cashiers	4.0%
Elementary Cleaning Occupations	4.0%
Elementary Storage Occupations	3.3%
Teaching and Childcare Support Occupations	2.4%
Administrative Occupations: Government and Related Organisations	2.4%
Elementary Construction Occupations	2.0%
Other Elementary Services Occupations	2.0%
Elementary Process Plant Occupations	2.0%
Metal Machining, Fitting and Instrument Making Trades	2.0%
Electrical and Electronic Trades	1.9%



**Subject demand**

# Demand for subjects (1)

To determine the (im)balance of qualifications and subjects within the future labour market a detailed analysis of the demand for **subjects** has been conducted\*.

The analysis is based on employment forecasts, replacement demand and recruitment patterns by subject, sector and occupation. This section presents results based on the high growth scenario\*\*.

Subjects are categorised into the following frameworks:

1. **Common Aggregation Hierarchy (CAH)** which refers the coding system used to group HE subjects (RQF level 6+). The '2-digit' breakdown is the broad grouping of subjects, and '3-digit' is a more detailed grouping of subjects. *NB: This framework has changed since the Skills Barometer 2021 publication, and therefore results are not directly comparable across HE subjects.*
2. **Sector Subject Areas (SSAs)** which refers to the coding system used to group FE subjects (predominantly RQF level 4-5). The '1-digit' breakdown is the broad grouping of subjects, and '2-digit' is a more detailed grouping of subjects.

It should be noted, the annual average requirements for skills at RQF Level 3 and below have not been identified at subject level because students typically study a wide range of subjects at these RQF levels. As a result, demand at RQF level 3 and below has been identified by sector and occupation only\*\*\*.

\*Annex C1 and C2 provides graduate (RQF L6+) sectors and occupations of work (1-digit) by subject studied (CAH, 2-digit)

\*\*Annex A1 provides subject demand under the baseline scenario

\*\*\*Annex D1 provides a range of demand side outputs for RQF level 3 and below



# Demand for subjects (2)

Estimates of future qualification levels and subject 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.

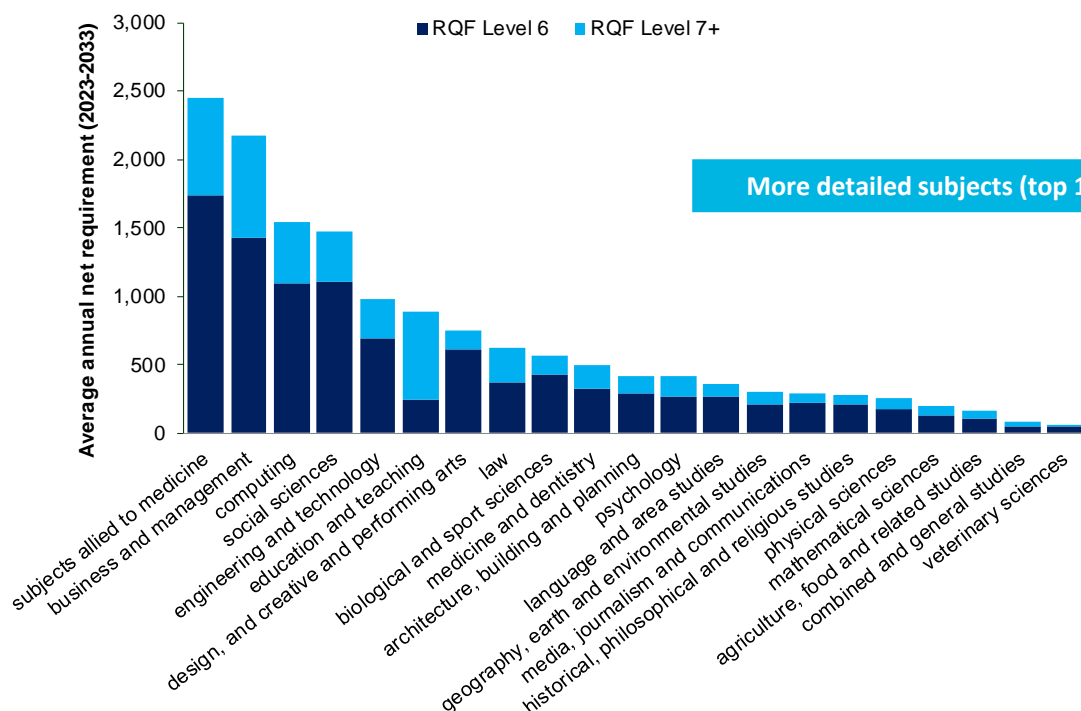
This section will present the following under a high growth scenario:

1. Net requirement (demand) by RQF level 6 / RQF level 7+ subject (CAH, 2-digit).
2. Net requirement (demand) by RQF level 6 / RQF level 7+ top 15 subject areas (CAH, 3-digit).
3. Net requirement (demand) by RQF level 4-5 subject (SSAs, 1-digit).
4. Net requirement (demand) by RQF level 4-5 subject top 15 subject areas (SSAs, 2-digit).

**It is important to state that although some subject areas may rank amongst the most in-demand in the NI economy, they can still be oversupplied. The demand and supply balances are explained within the '(im)balances' in this report.**

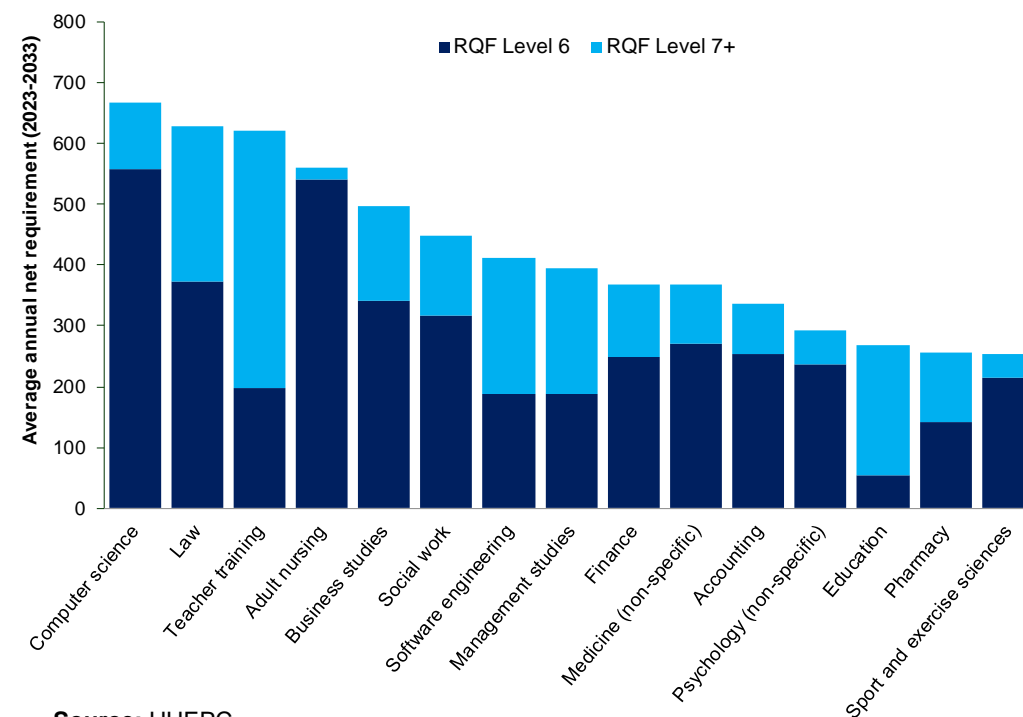
# Graduate demand by subject

Average annual net requirement for RQF level 6+ by subject (CAH, 2-digit), NI, 2023-2033



More detailed subjects (top 15)

Average annual net requirement for top 15 RQF level 6+ by subject (CAH, 3-digit), NI, 2023-2033



Source: UUEPC

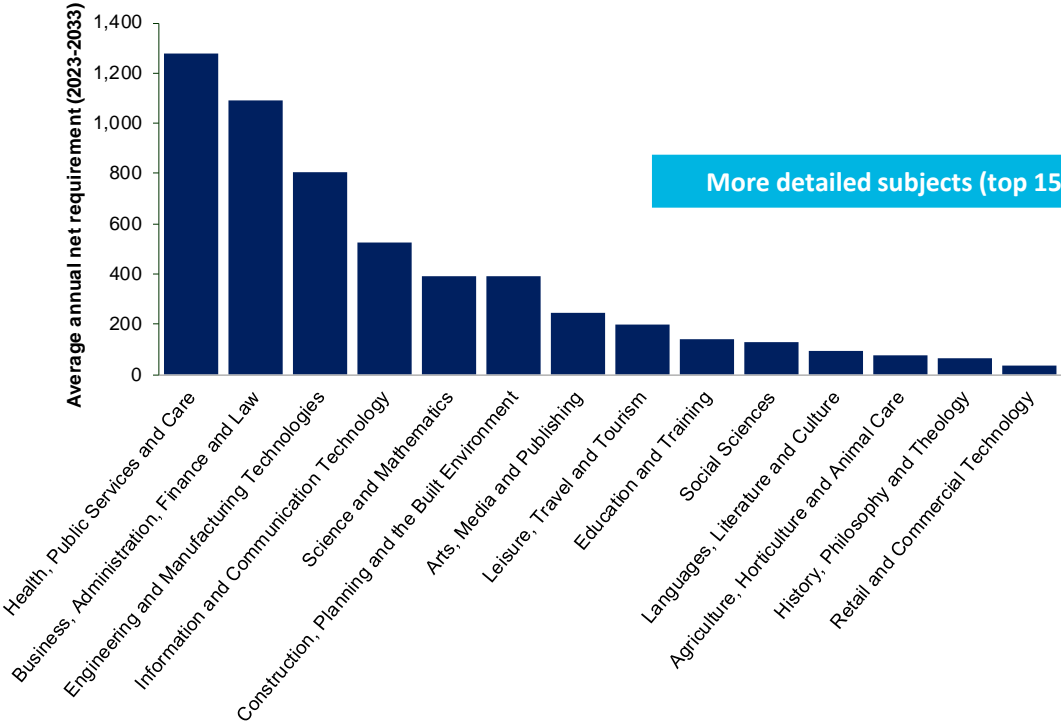
Source: UUEPC

The highest graduate level (and above) demand at a broad level is for those studying 'subject allied to medicine' (e.g. nursing and healthcare science subjects), accounting for 17% of total RQF level 6+ demand. At a more detailed level, the most in-demand subject area is computer science, with demand predominantly for those with RQF level 6 (83% of computer science demand) compared to RQF Level 7+ (17% of computer science demand).

# Sub-degree demand by subject

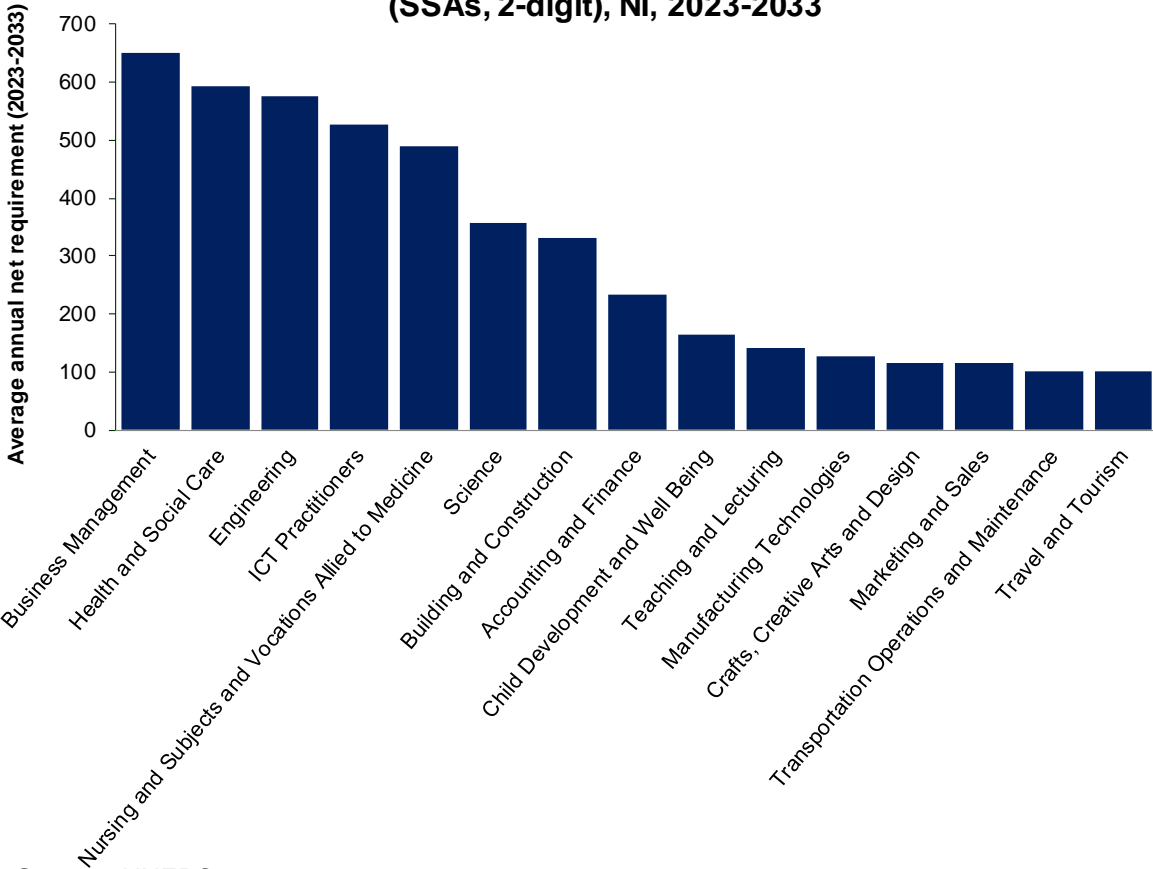
Economic Policy  
Centre

Average annual net requirement for RQF level 4-5 by subject (SSAs, 1-digit), NI, 2023-2033



More detailed subjects (top 15)

Average annual net requirement for top 15 RQF level 4-5 by subject (SSAs, 2-digit), NI, 2023-2033



Source: UUEPC

Source: UUEPC

The highest sub-degree demand at a broad level is for those studying 'health, public services and care' related subjects, accounting for 23% of total RQF level 4-5 demand. At a more detailed level, the most in-demand subject area is 'business management' (accounting for 12% of total sub-degree demand) followed by 'health and social care' (accounting for 11% of total sub-degree demand).

# Supply side







# Supply side concepts

# Supply side concepts (1)

The supply forecast is based on current qualifier rates across the education system and demographic projections from the Office for National Statistics (ONS). It **does not assume any change in policy**, hence supply estimates are the same across both the high growth and baseline scenarios. Therefore, highlighting areas where under or over supply could become an issue **in the absence of any change**.

Supply estimates consider a number of factors (e.g., students leaving NI, students returning to NI etc.) therefore two estimates are calculated:

1. **Gross Supply** which is the number of qualifiers produced across all NI education institutions.
2. **Net Supply** which includes all students educated in NI institutions **plus** NI domiciled students returning from education at GB HEIs **minus** students educated in NI who then leave **minus** students who proceed to further study.

Further, it should be noted that in some instances an individual may require additional employability skills in order to attain a job commensurate with their level of qualification.

# Supply side concepts (2)

The difference between gross supply and net supply can be explained by the following concepts.

1. **Migration flows** - a number of students qualifying from NI HEI education institutions will leave NI to live and work elsewhere. This trend has increased in recent years, at the same time the number of international students has increased (international students study in NI then typically return home). Similarly, there are NI domiciled students qualifying from HEI institutions outside NI who return to NI upon graduating. Net supply accounts for these flows by netting out the qualifiers that leave NI and adding in those who return to NI (and enter the labour market).
2. **Labour market participation** - students are only counted as part of the net supply if they leave an education institution to actively participate in the labour market (i.e. either employed or unemployed). The difference between gross supply and net supply is more significant in FE than HE as greater proportions of FE students continue to further study compared to HE.

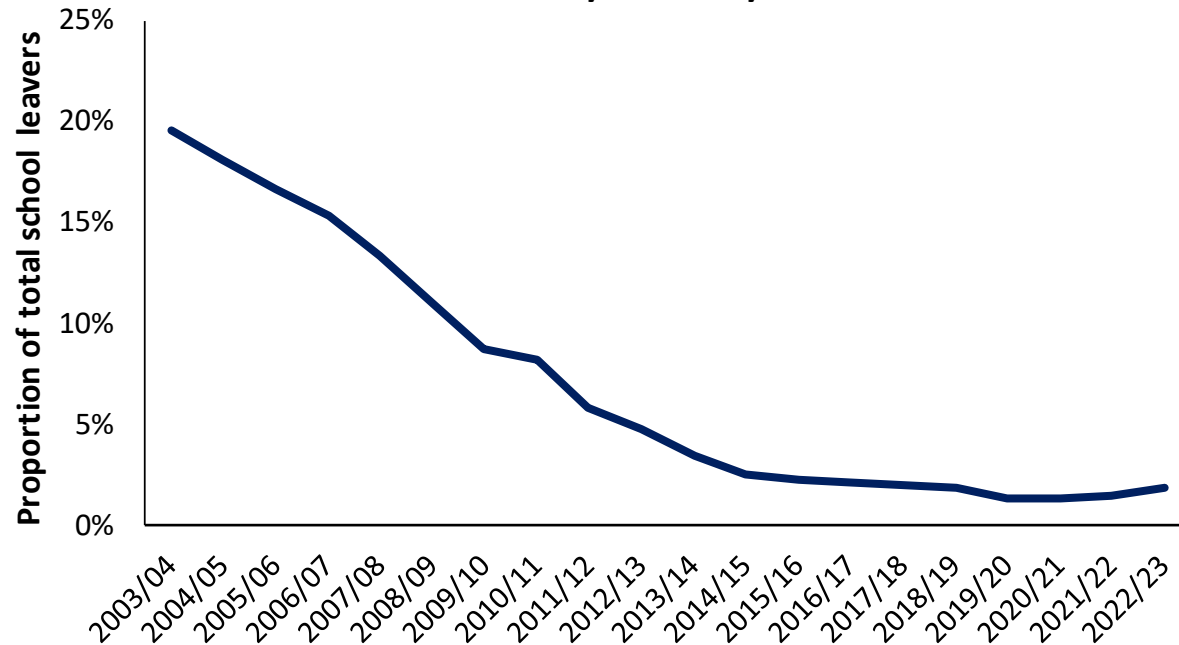


# Qualifications from education institutions

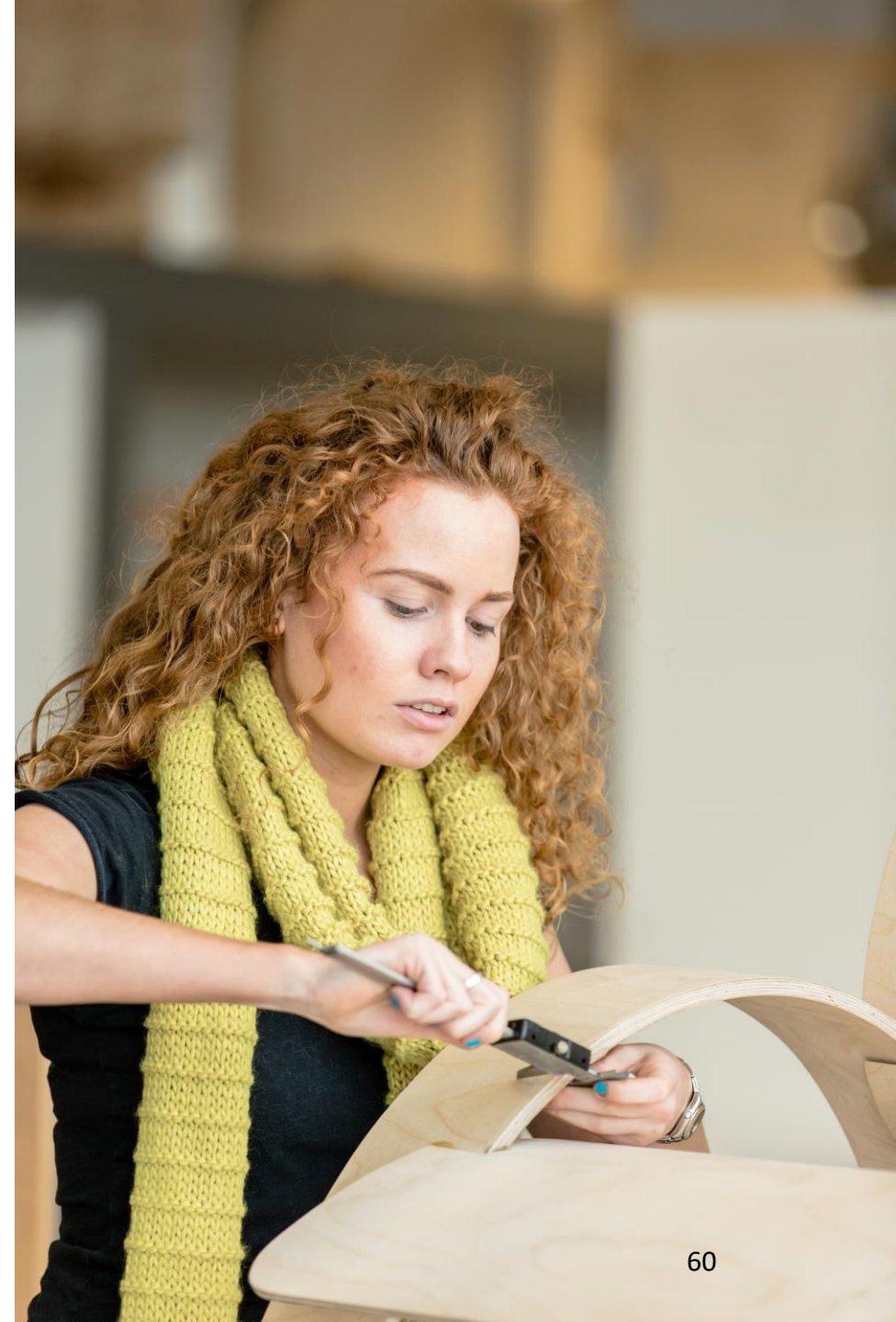


# School leavers by qualification (1)

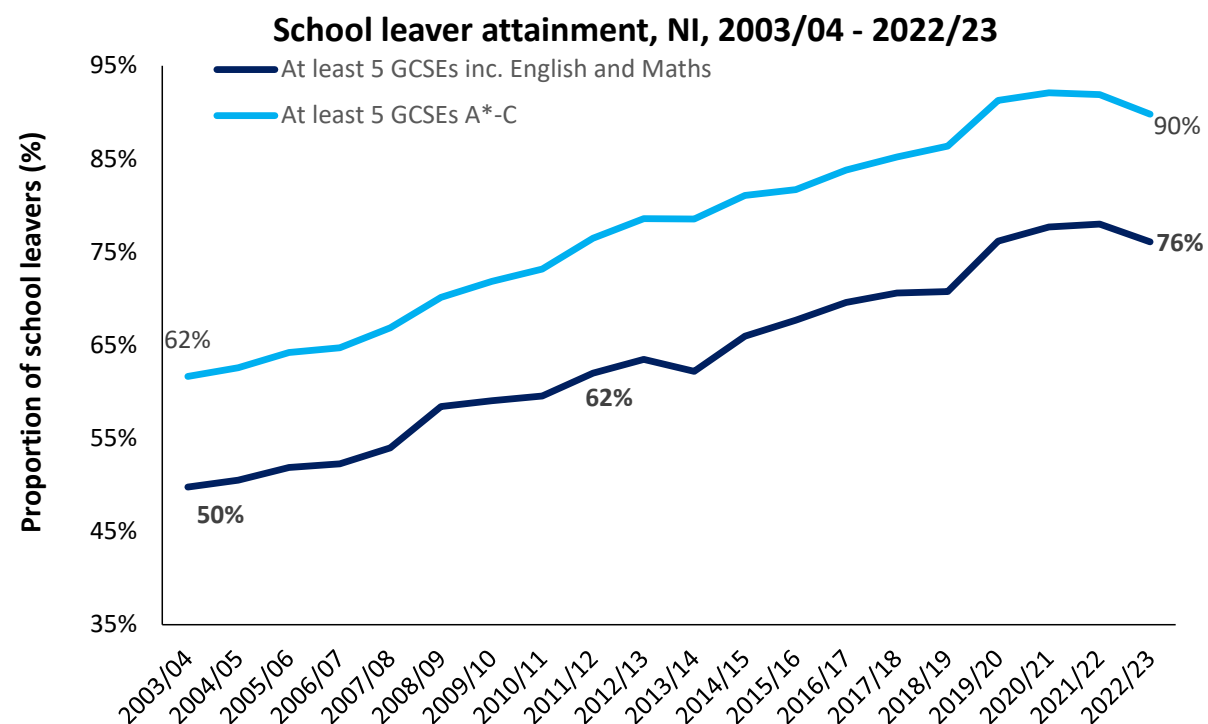
Below RQF level 2 qualifiers (less than 1 GCSE A\*-C), NI,  
2003/04-2022/23



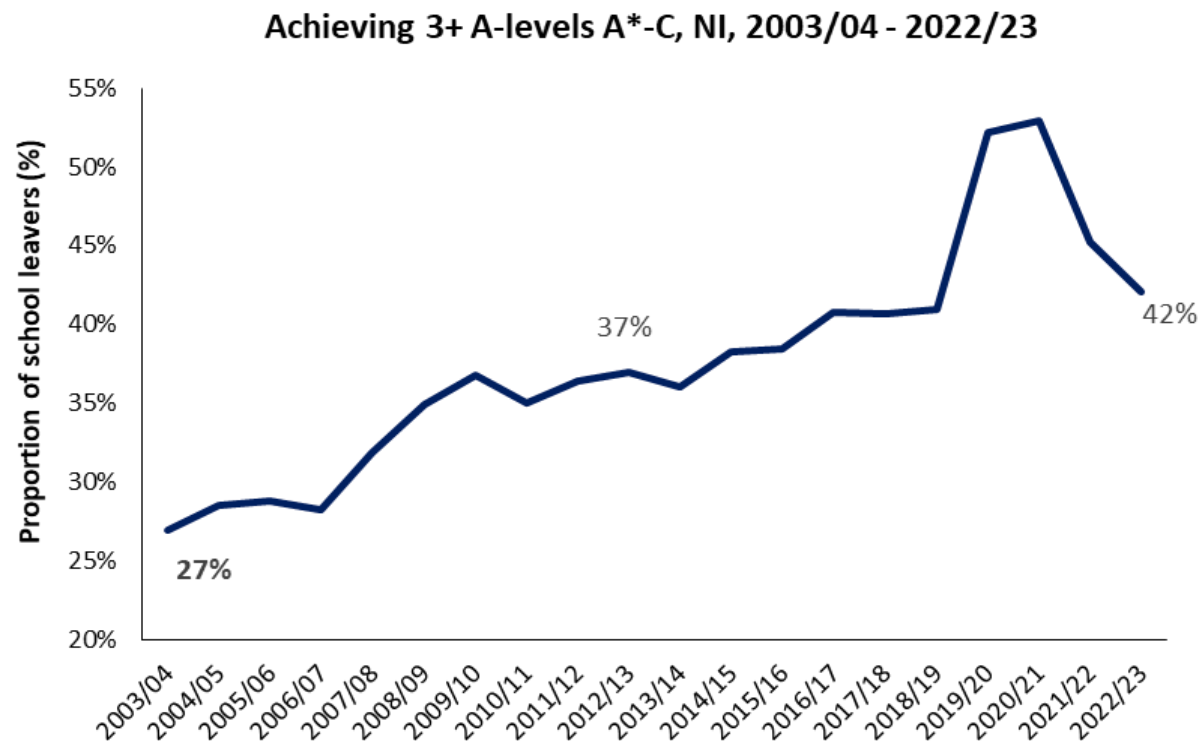
The proportion of school leavers qualifying with less than RQF level 2 (i.e. less than 1 GCSE A\*-C) has declined significantly over the last two decades. Therefore, post-secondary education should focus on developing RQF Level 2 and above qualifications.



# School leavers by qualification (2)



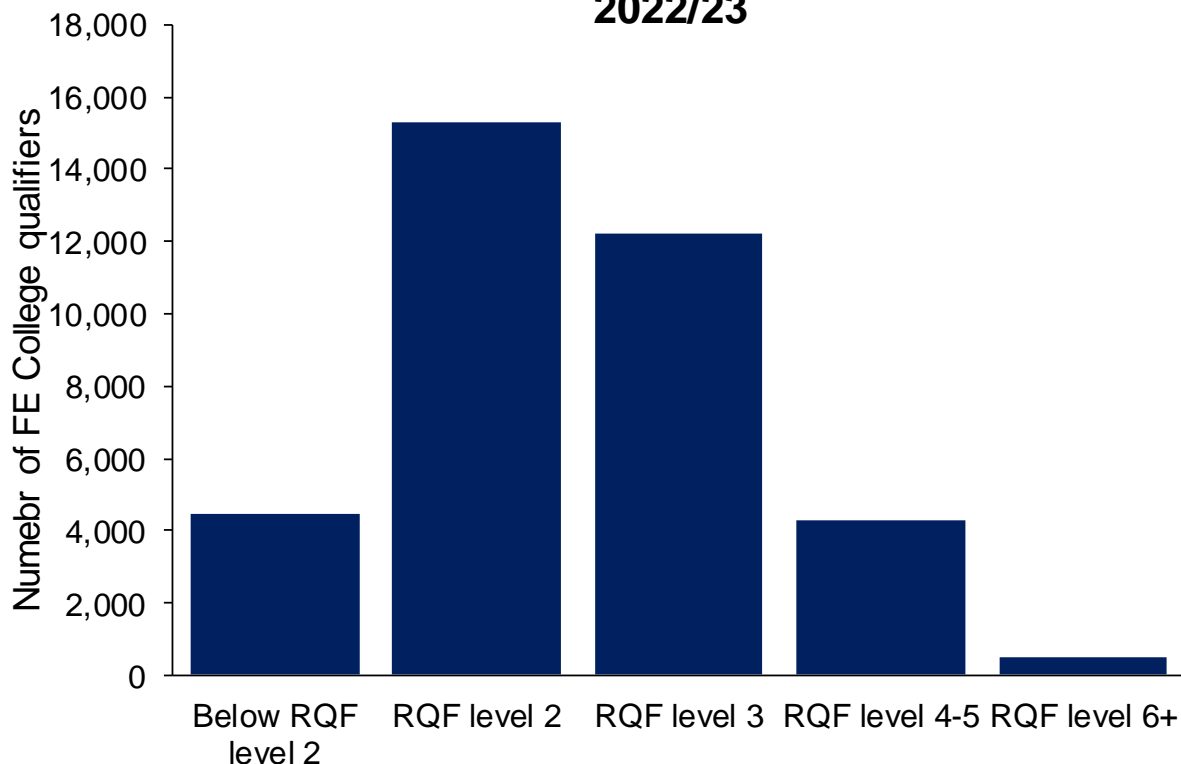
Source: School Leavers Survey, DE



Source: School Leavers Survey, DE

# Further Education College leavers by qualification

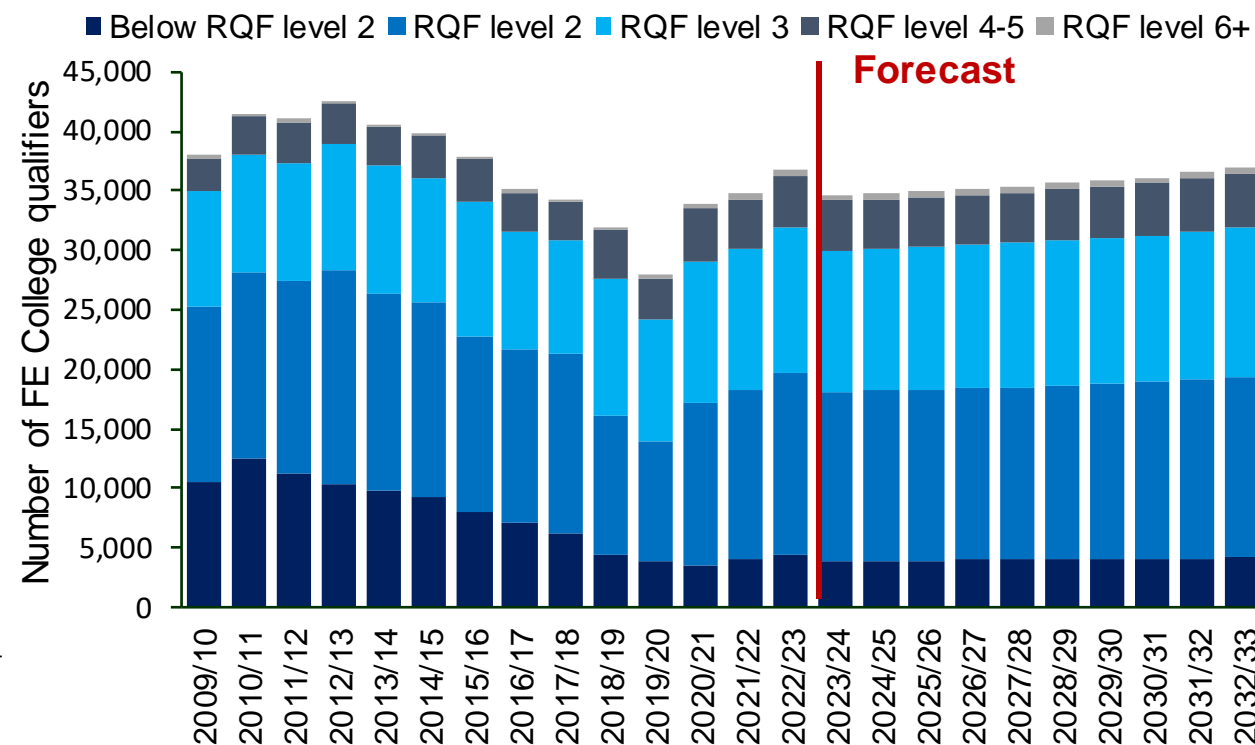
Further Education College qualifiers by RQF, NI, 2022/23



Source: DfE, Further Education Sector Activity

Note: Data refers to the gross supply of mainstream qualifiers regulated qualifications at NI FE colleges.

Further Education College qualifiers by RQF, NI, 2009/10-2032/33

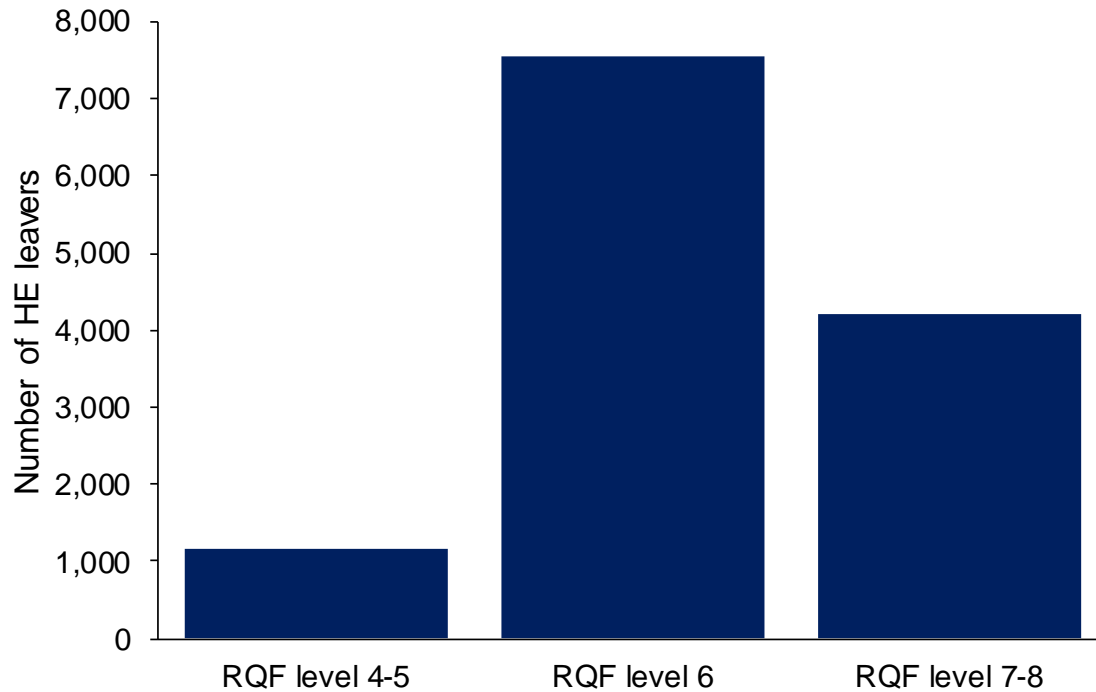


Source: DfE, Further Education Sector Activity, UUEPC analysis

Note: Data refers to the gross supply of mainstream qualifiers regulated qualifications at NI FE colleges.

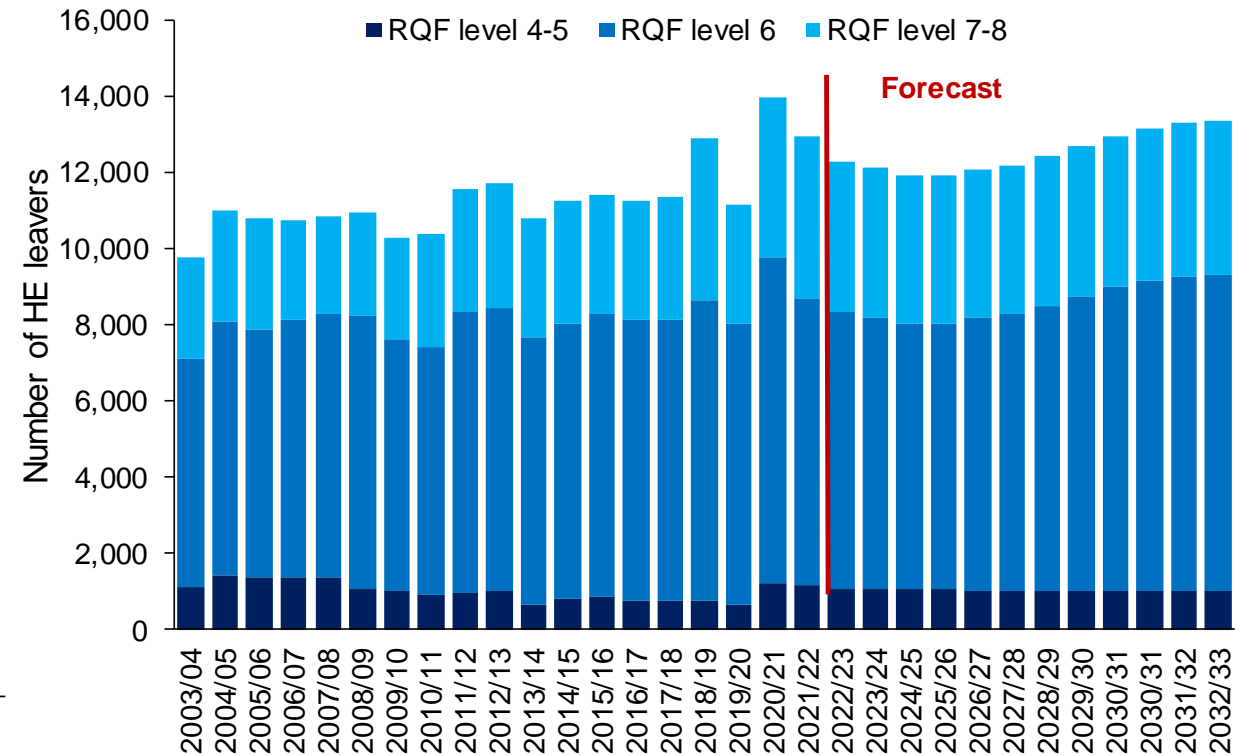
# Higher Education leavers by qualification

Net supply from higher education by RQF, NI,  
2021/22



Source: HESA

Net supply from higher education by RQF, NI,  
2003/04-2032/33

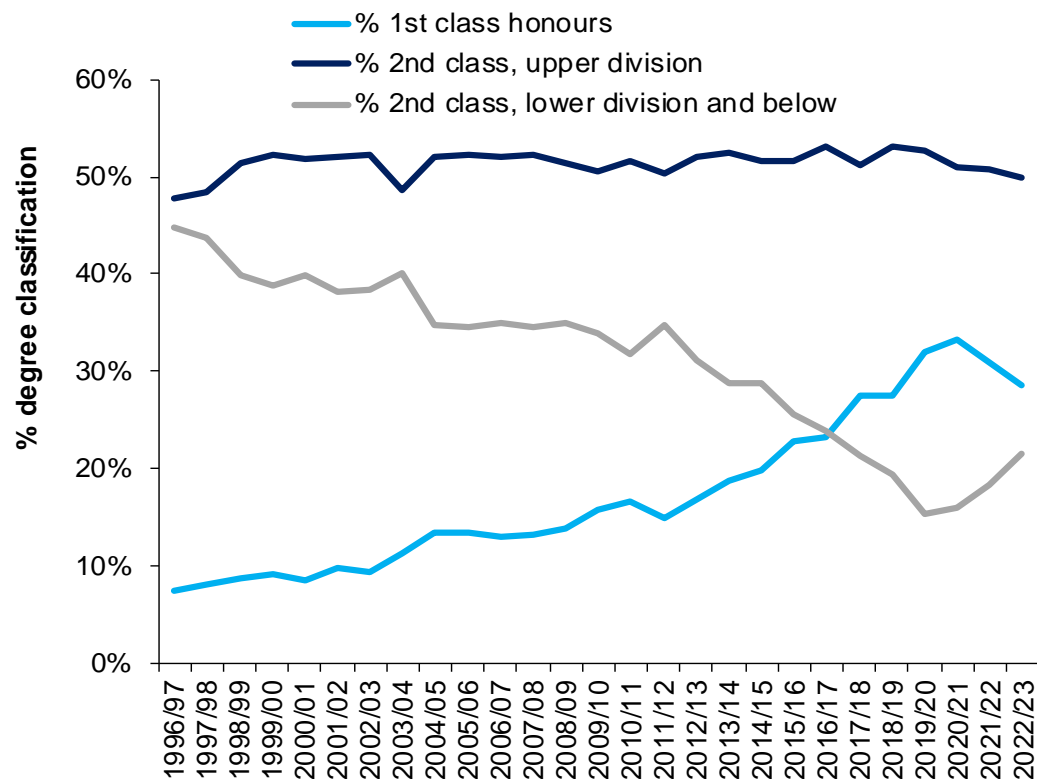


Source: HESA, UUEPC analysis



# NI Higher Education Institution leavers by classification

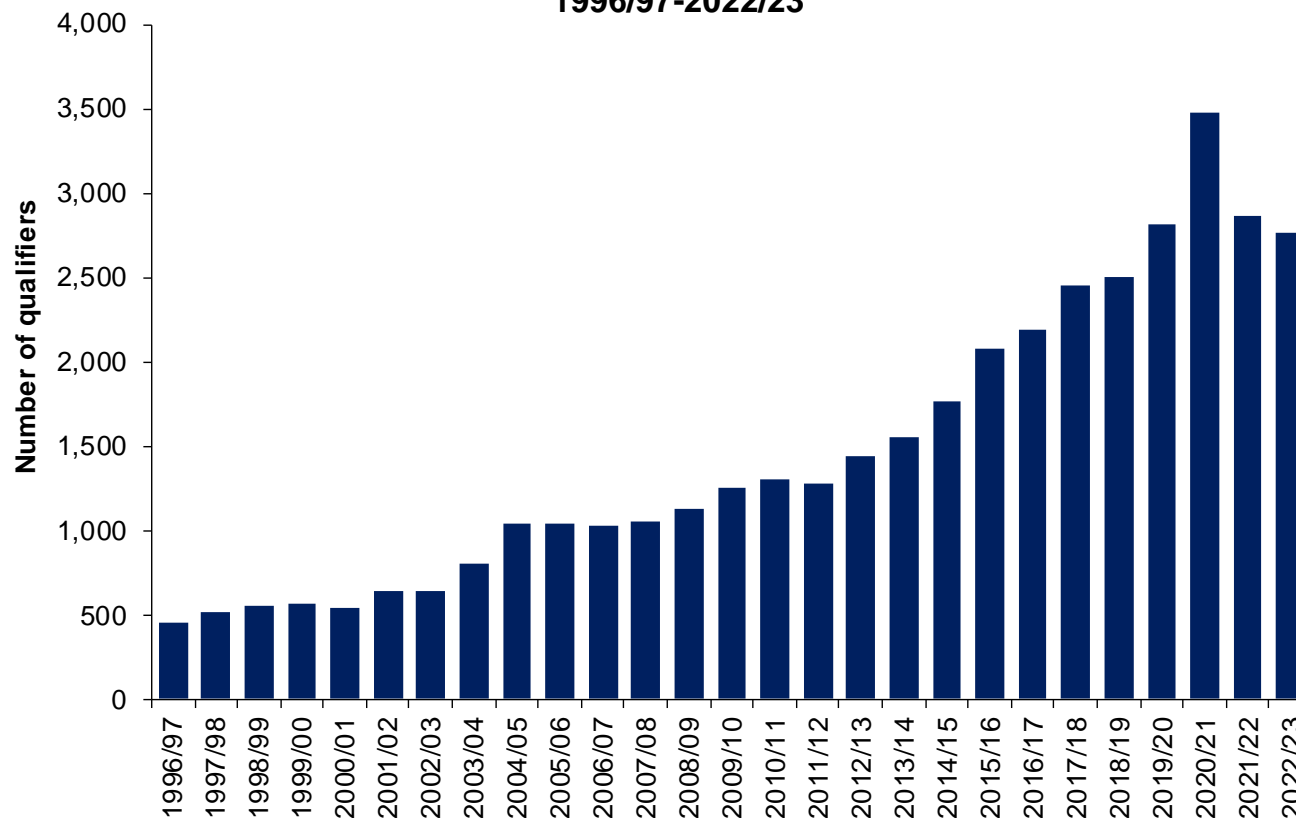
Students gaining first degrees at NI HEIs, by degree  
classification, 1996/97-2022/23



Source: HESA

Note: Excludes unclassified degrees

Students gaining 1st class honours in first degrees at NI HEIs,  
1996/97-2022/23

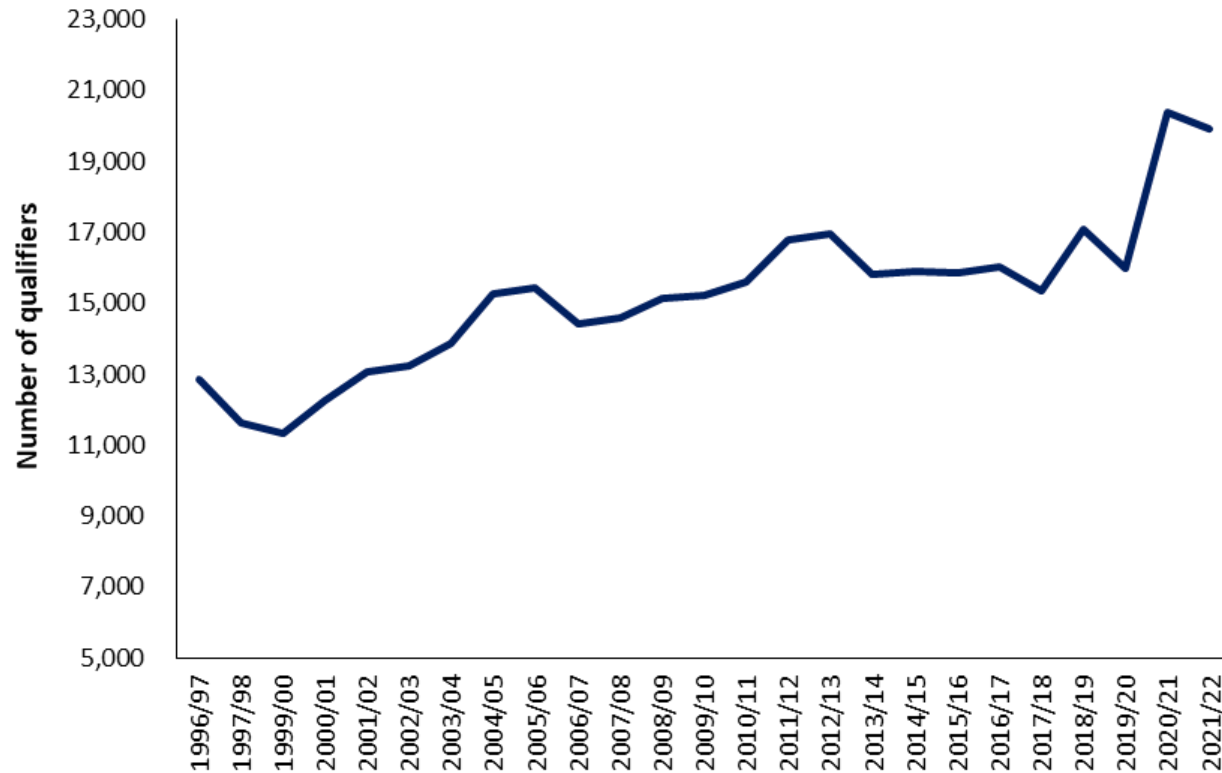


Source: HESA

Note: Excludes unclassified degrees

# NI Higher Education Institution leavers by subject

Students qualifying from Northern Ireland Higher Education  
Institutions, 1996/97-2021/22



Source: HESA

Top 5 subjects - NI HEI qualifiers  
(2019/20-2021-22)



Subjects allied to medicine  
21% of total



Business & management  
16% of total



Social sciences  
9% of total



Computing  
8% of total



Education & teaching  
7% of total

Source: HESA

# Distribution by sex across subjects is an important consideration

Qualifiers in narrow STEM subject (% of total), by gender, NI, 2022/23

Narrow STEM	Male	Female	Total
Biological and sport sciences	3%	2%	3%
Psychology	1%	4%	3%
Physical sciences	2%	1%	1%
Mathematical sciences	1%	1%	1%
Engineering and technology	10%	2%	5%
Computing	11%	3%	7%
Geography, earth and environmental studies	1%	1%	1%
<b>Narrow STEM</b>	<b>30%</b>	<b>14%</b>	<b>21%</b>

Source: HESA  
 Note: Figures may not sum due to rounding.

Qualifiers in public sector aligned subject (% of total), by gender, NI, 2022/23

Public sector aligned subjects	Male	Female	Total
Medicine and dentistry	3%	4%	3%
Subjects allied to medicine	6%	23%	16%
Education and teaching	4%	8%	6%
<b>Public sector aligned subjects</b>	<b>13%</b>	<b>34%</b>	<b>26%</b>

Source: HESA  
 Note: Due to data availability, this table excludes social work, which could also be considered a public sector aligned subject.  
 Note: Figures may not sum due to rounding.

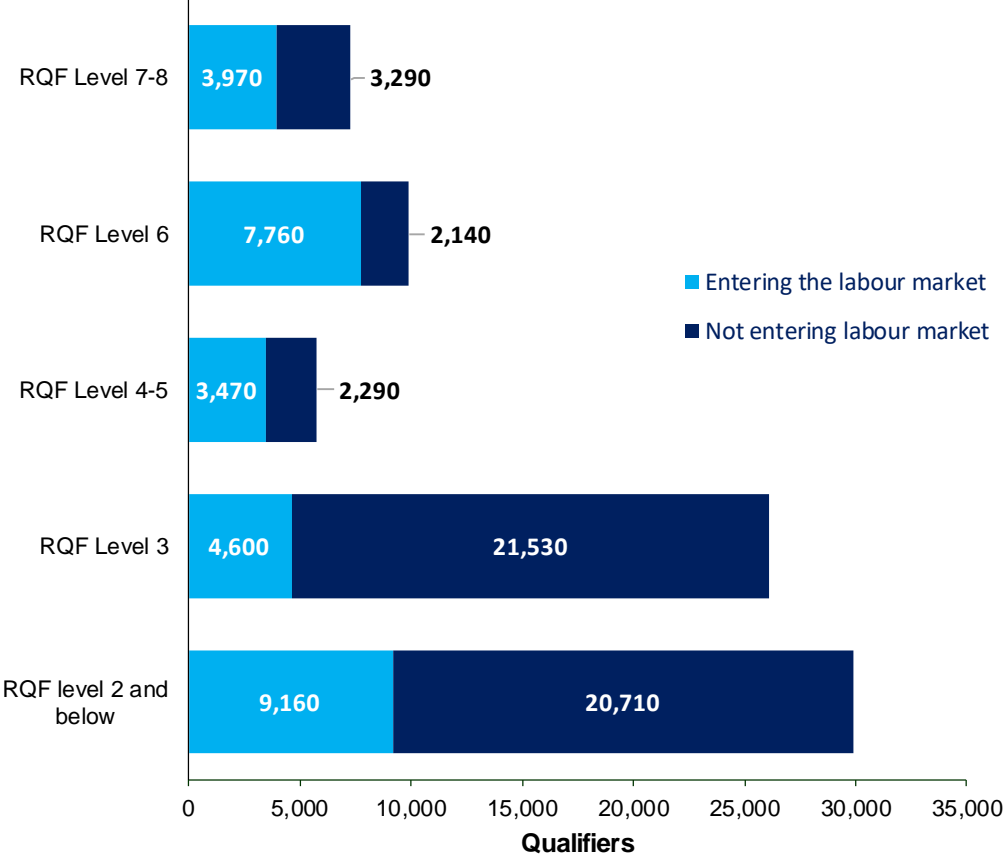
Almost one-third (30%) of **male** Higher Education qualifiers qualify in a narrow STEM subject, compared to just 14% of females. Therefore, it is reasonable to suggest that increasing STEM participation will need to come predominately from attracting more females in to STEM subjects.

Over one-third (34%) of **female** Higher Education qualifiers qualify in a public sector aligned subject, compared to just 13% of males. Therefore, it is reasonable to suggest that increasing supply will need to come predominately from attracting more males into these subject areas.



# Destination of leavers by qualification level

Annual average destination of leavers by qualification (RQF), NI, 2023-2033



Source: UUEPC

**Note:** This graphic includes data from the NI School Leavers survey. Therefore, school qualifiers who did not leave the institution after qualifying are not included (i.e. GCSE qualifiers remaining in the same school to study A-levels, or equivalent).

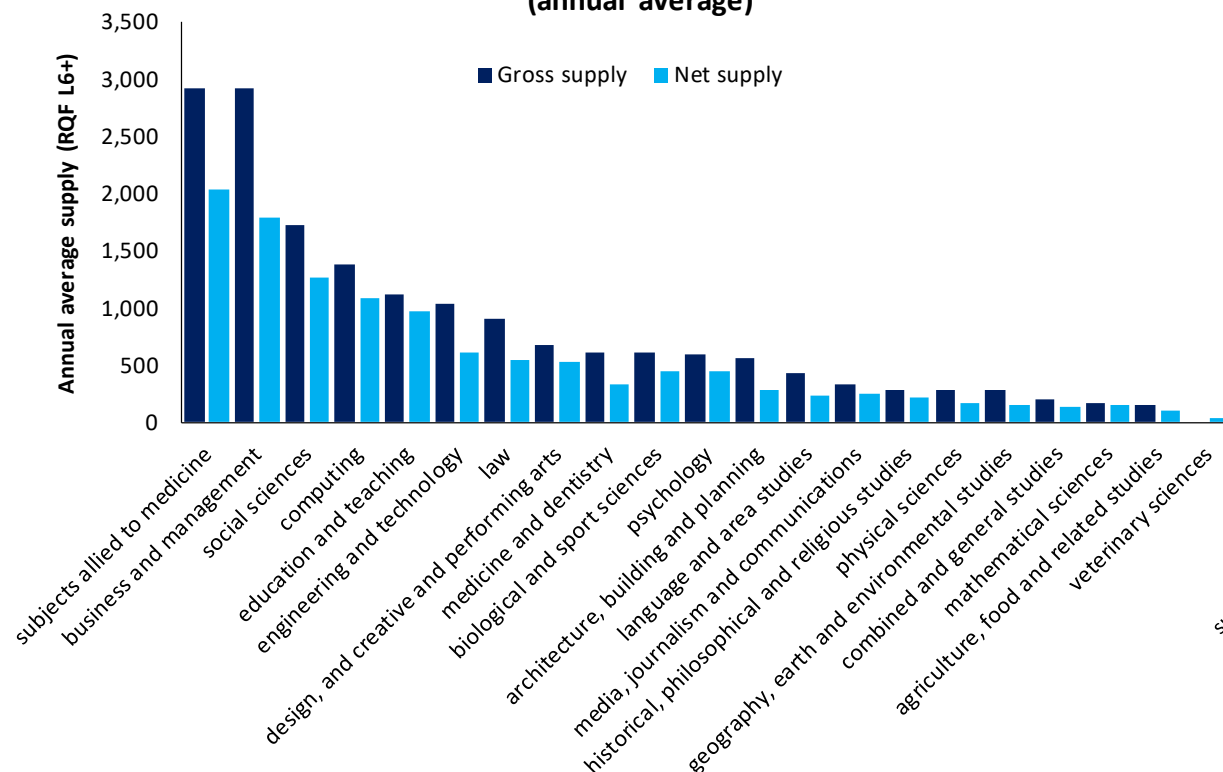




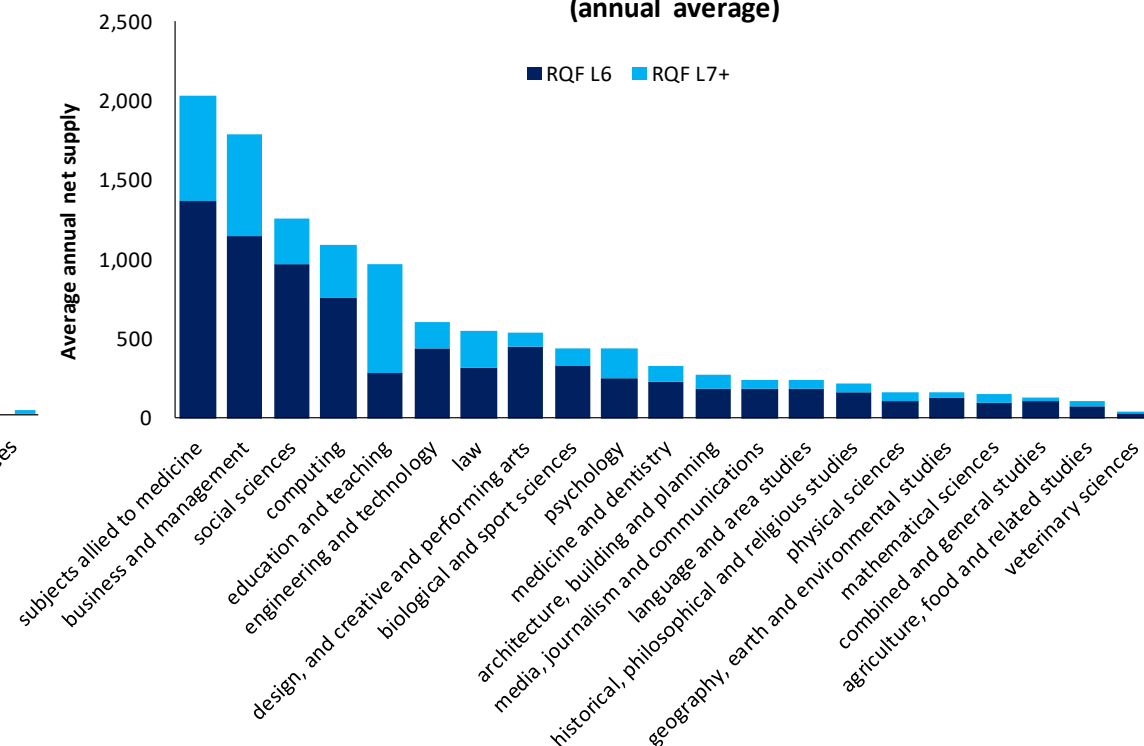
# Subject supply of RQF Level 6+ qualifiers

**Gross Supply** refers to the number of qualifiers produced across all NI education institutions. **Net Supply** refers to all students educated in NI institutions *plus* NI domiciled students returning from education at GB HEIs *minus* students educated in NI who then leave *minus* students who proceed to further study.

Gross and net supply by subject (broad), RQF Level 6+, NI, 2023-2033  
(annual average)

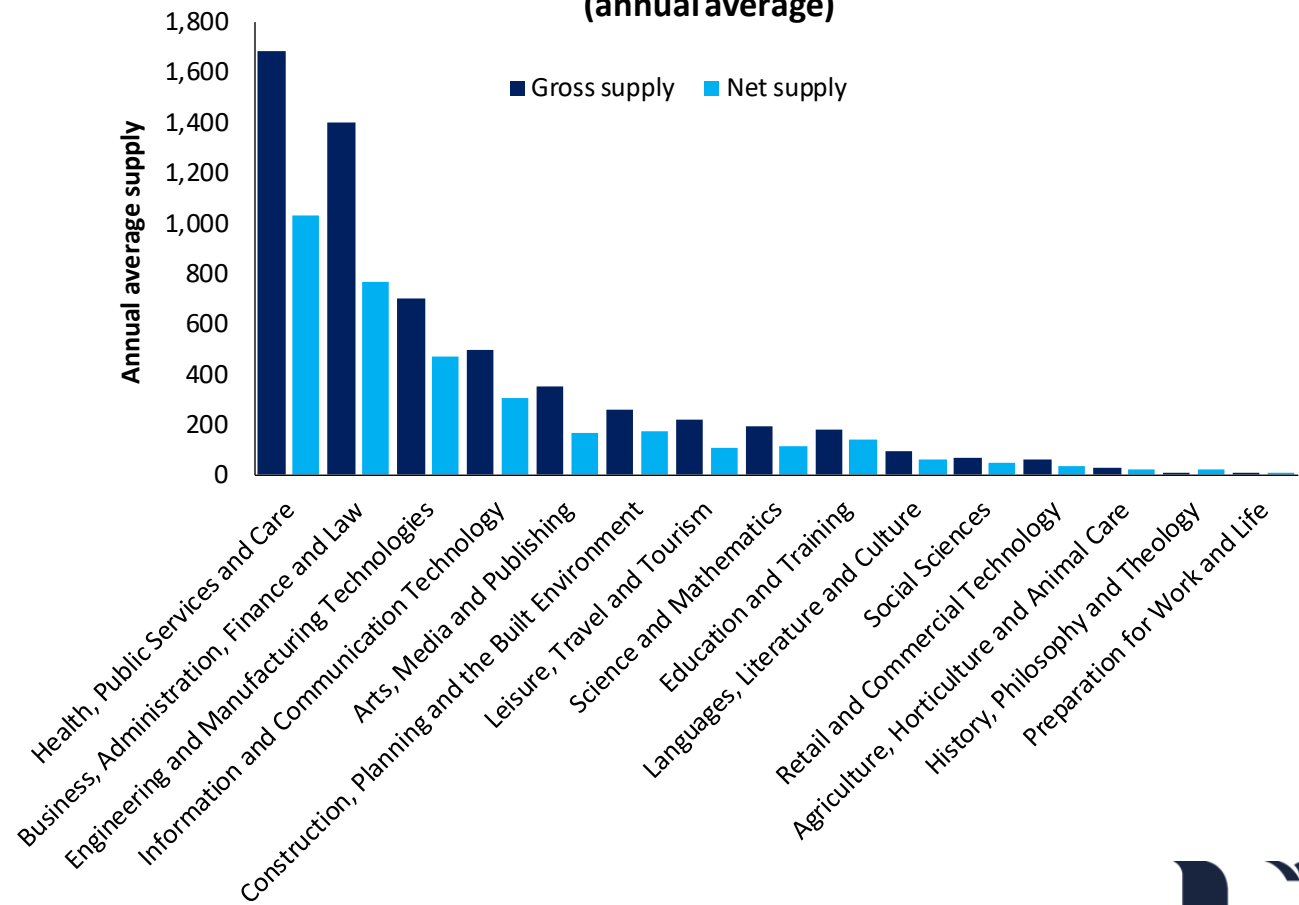


Net supply by subject (broad), RQF Level 6 & RQF Level 7+, NI, 2023-2033  
(annual average)



# Supply of RQF Level 4-5 qualifiers

Gross and net supply by subject (broad), RQF Level 4-5, NI, 2023-2033  
(annual average)



Source: UUEPC analysis, DfE



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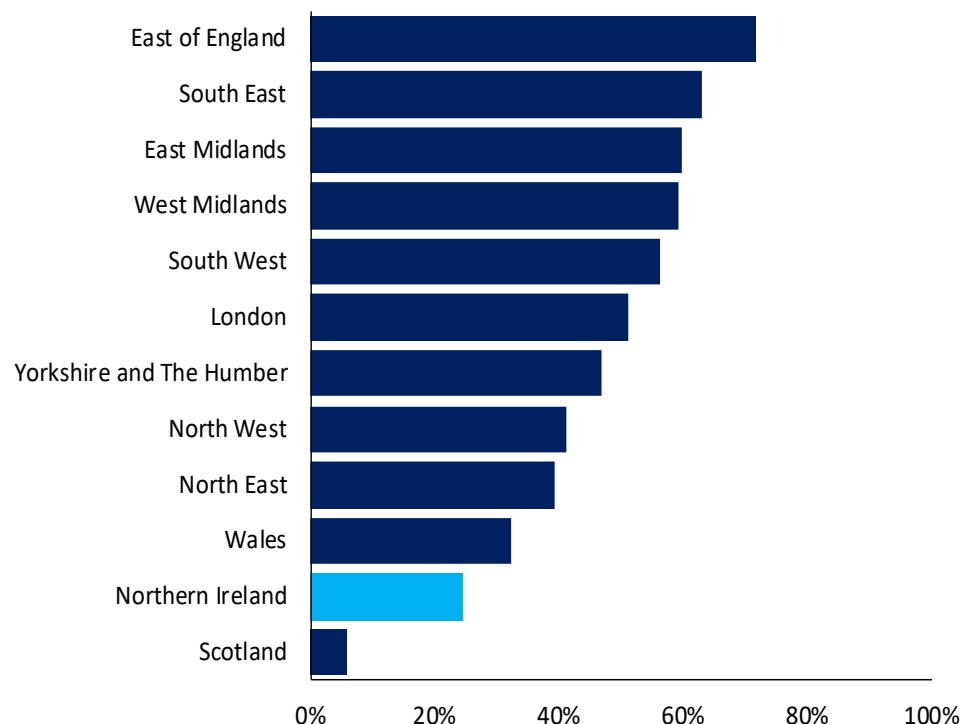




# NI HEI qualifiers – location of study, employment and international student trends

# Local students less likely to study outside NI, but low inflows

Students domiciled outside their HEI region as a proportion of total students within their domicile, UK regions, 2022/23

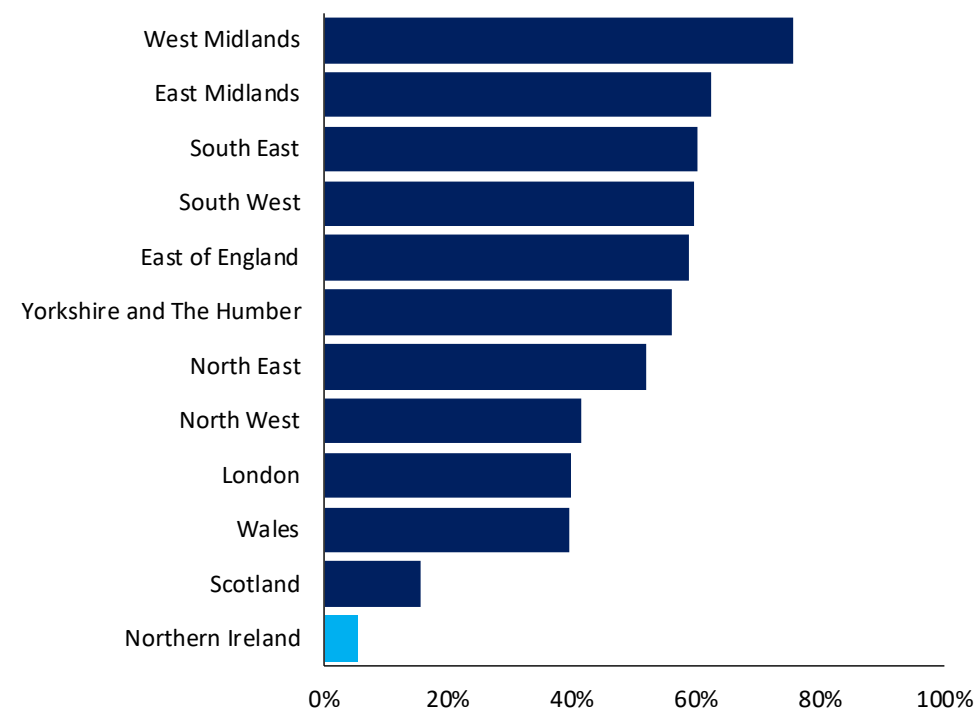


Source: HESA

% of enrolments within each domicile

A relatively low proportion of NI domiciled students' study outside NI (24%), second only to Scotland wherein free tuition fees is likely a major draw for Scottish students to remain in their region of domicile.

HE inflow from other UK regions (% of UK domiciled enrolments within region), UK regions, 2022/23



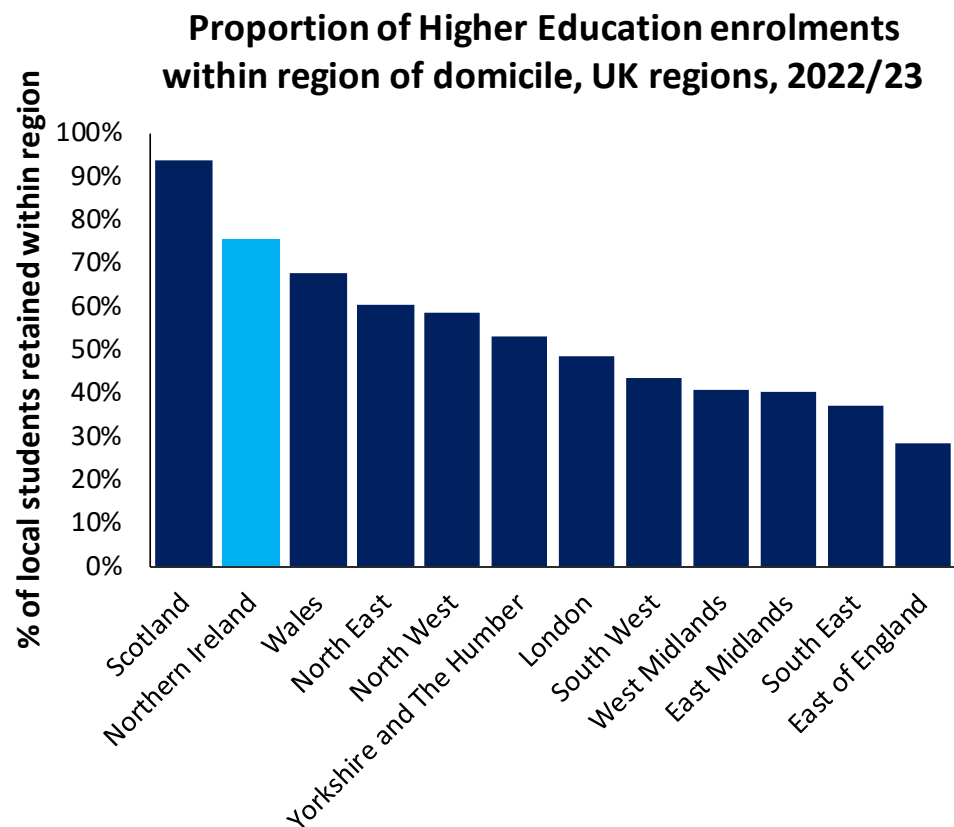
Source: HESA

% of enrolments within HEI region

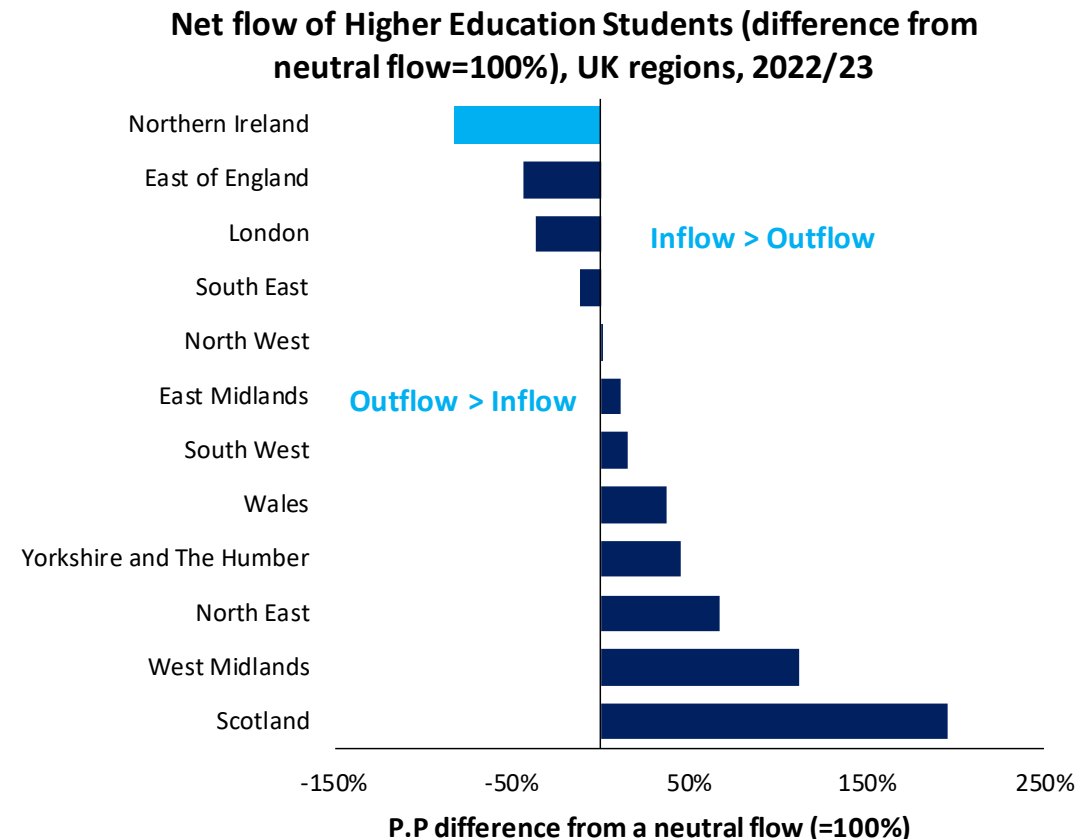
NI HEI's attract the lowest proportion of students from other UK domiciles, across all UK regions. That is, 5% of students in NI HEIs are from other UK regions compared to a UK average 47%.



# NI has a high retention rate, but a negative net flow of students



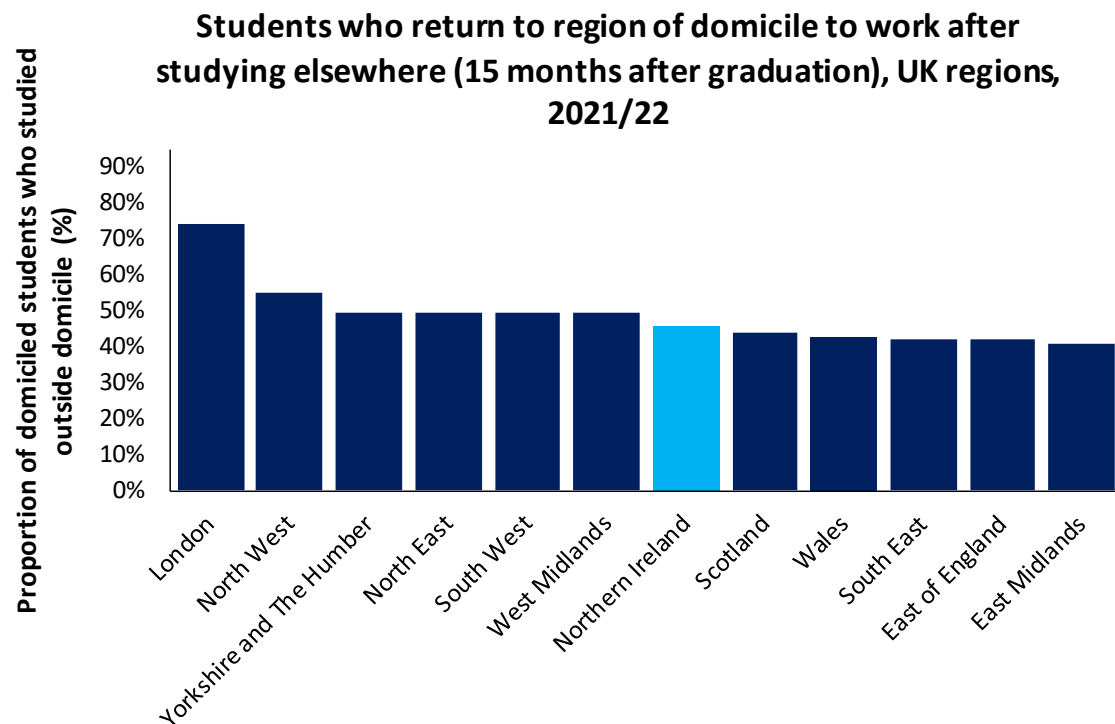
Source: HESA



Source: HESA

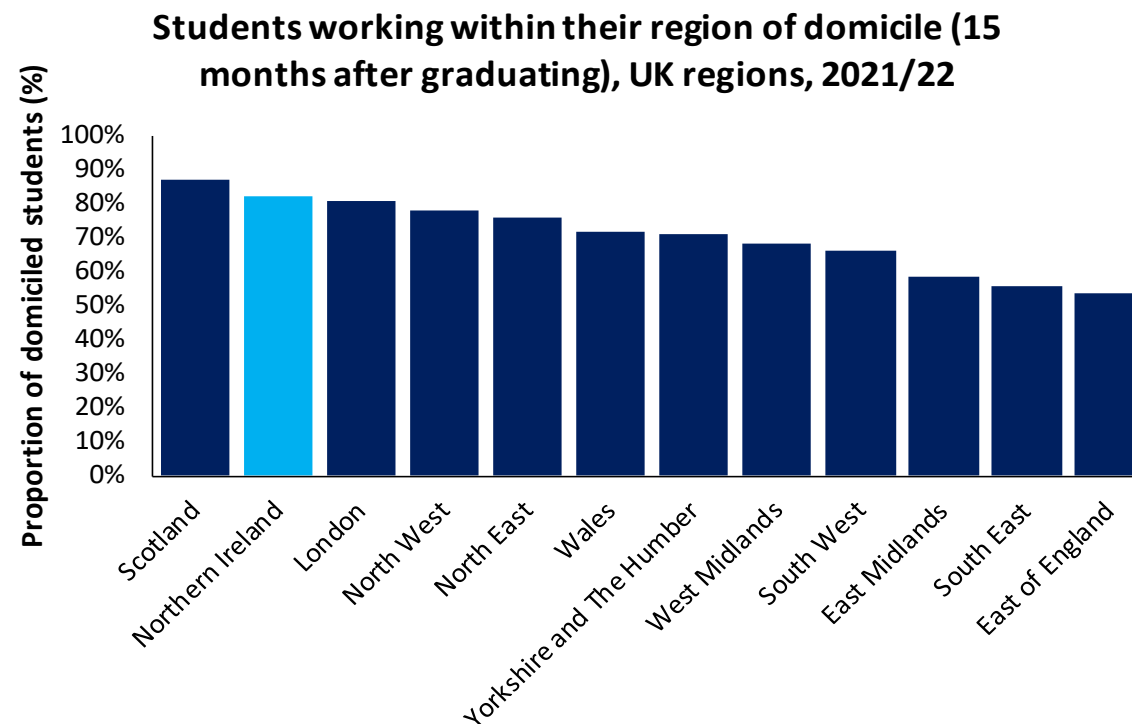
NI retains a relatively high proportion of NI domiciled students relative to other UK regions. However, as NI HEIs also attract a relatively low proportion of GB domiciled students, NI has the largest net outflow of students.

# NI has a relatively high retention rate for local talent



Source: HESA

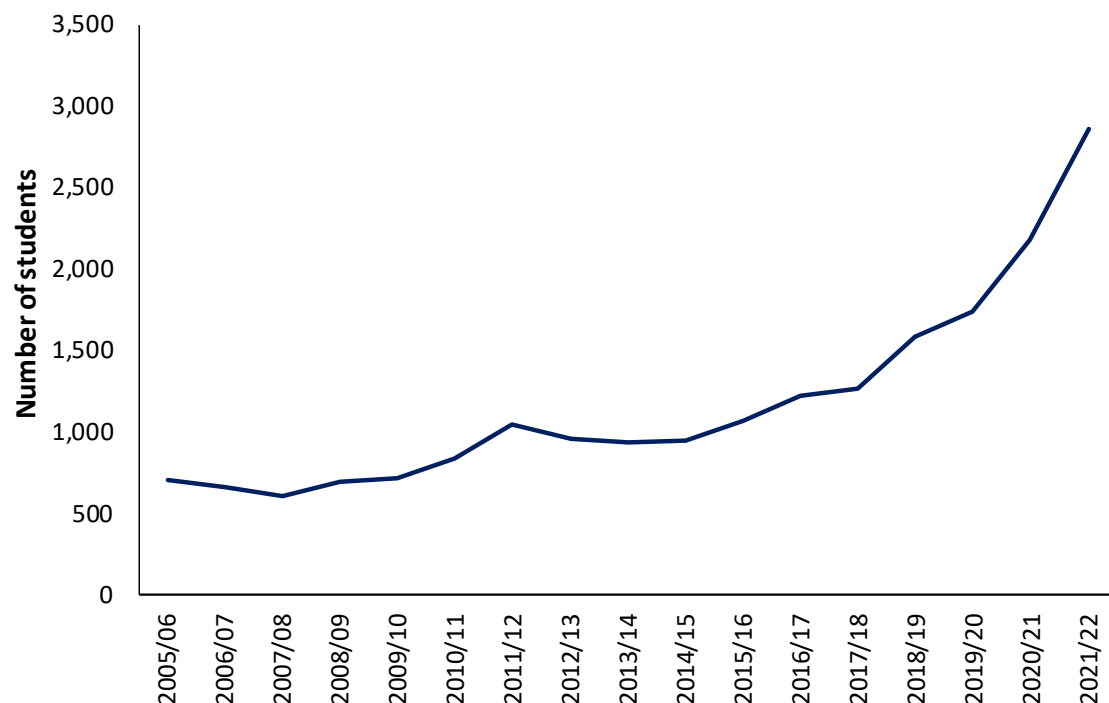
Note: Figures are based on education leavers currently working, where 'paid employment is their most important activity'.



Source: HESA

# Postgraduate qualifiers driving increasing international students

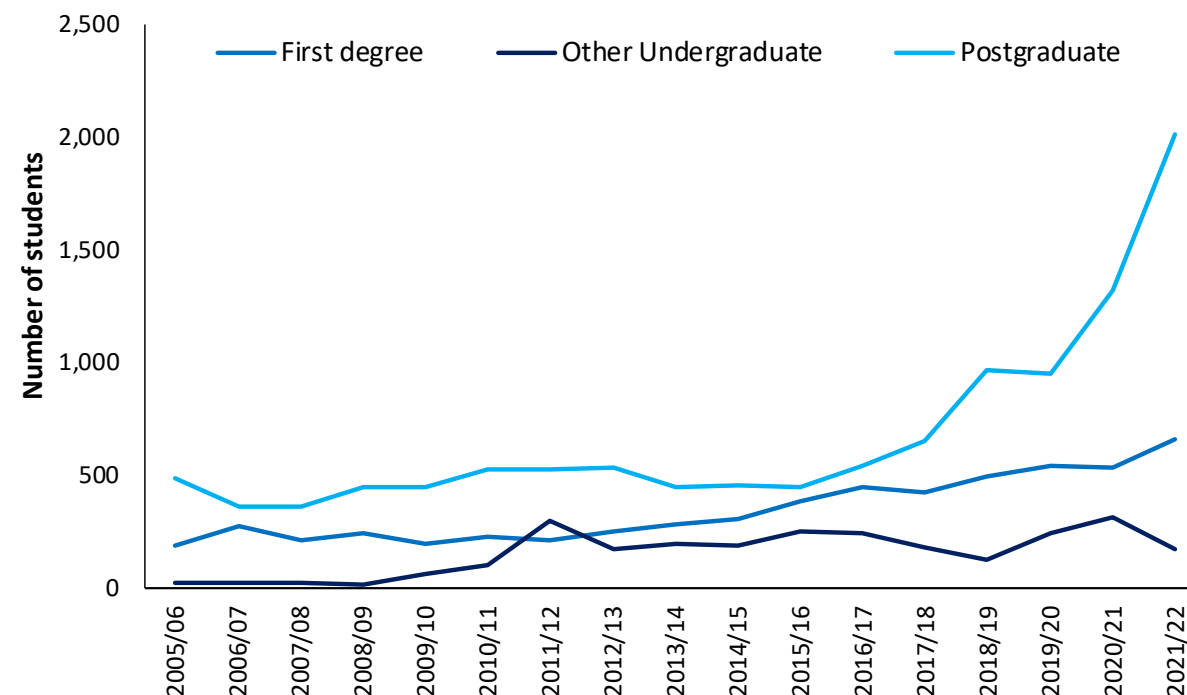
Non-UK/Rol domiciled qualifiers at NI HEIs, 2005/06-2021/22



Source: HESA

Note: Data excludes qualifiers from Ulster University's Birmingham and London campuses

Non-UK/Rol domiciled qualifiers at NI HEIs by level of qualification, 2005/06-2021/22



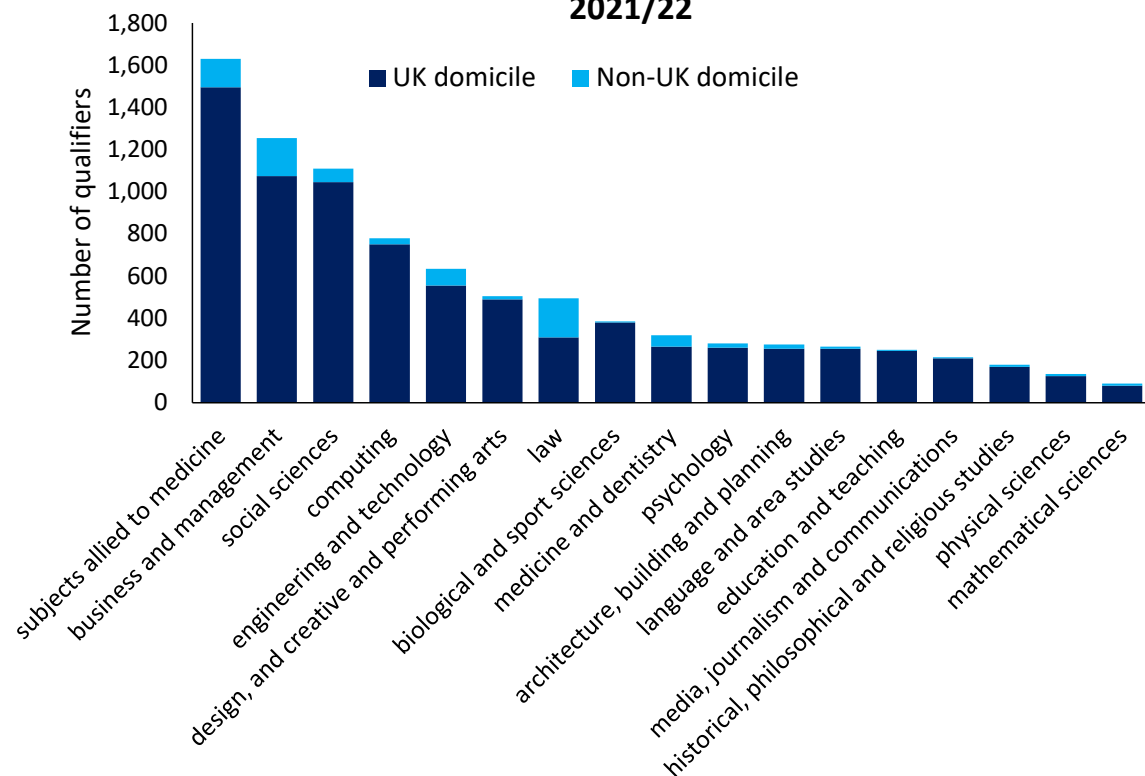
Source: HESA

Note: Data excludes qualifiers from Ulster University's Birmingham and London campuses

In 2005/06 there were approximately 0.7k non-UK/Rol domiciled students, accounting for 5% of total NI HEI qualifiers. In the latest year of data this figure has increased to 2.9k, accounting for 16% of total qualifiers. This has predominantly been driven by a rise in non-EU postgraduate qualifiers, who now account for over one-quarter (28%) of all postgraduate qualifiers.

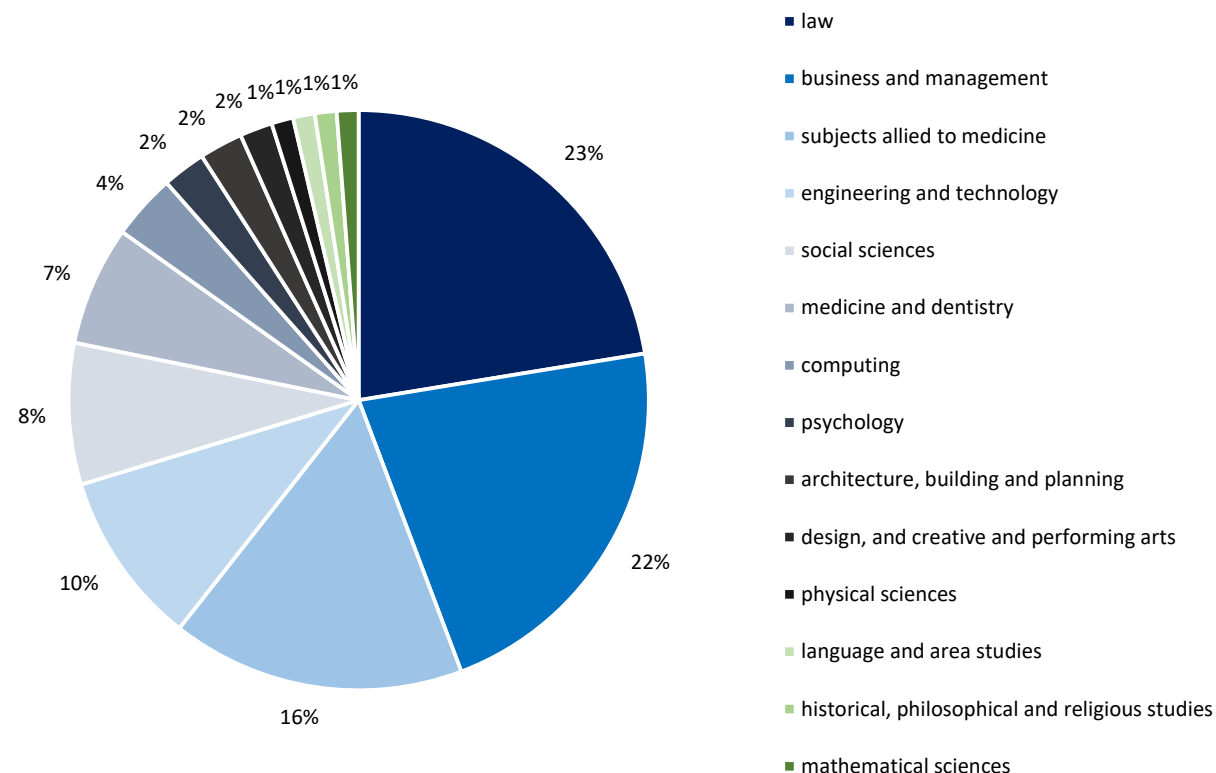
# International students by subject studied – first degree

First degree qualifiers by domicile and subject, NI HEIs,  
2021/22



Source: HESA

First degree international qualifiers at NI HEIs by subject, 2021/22



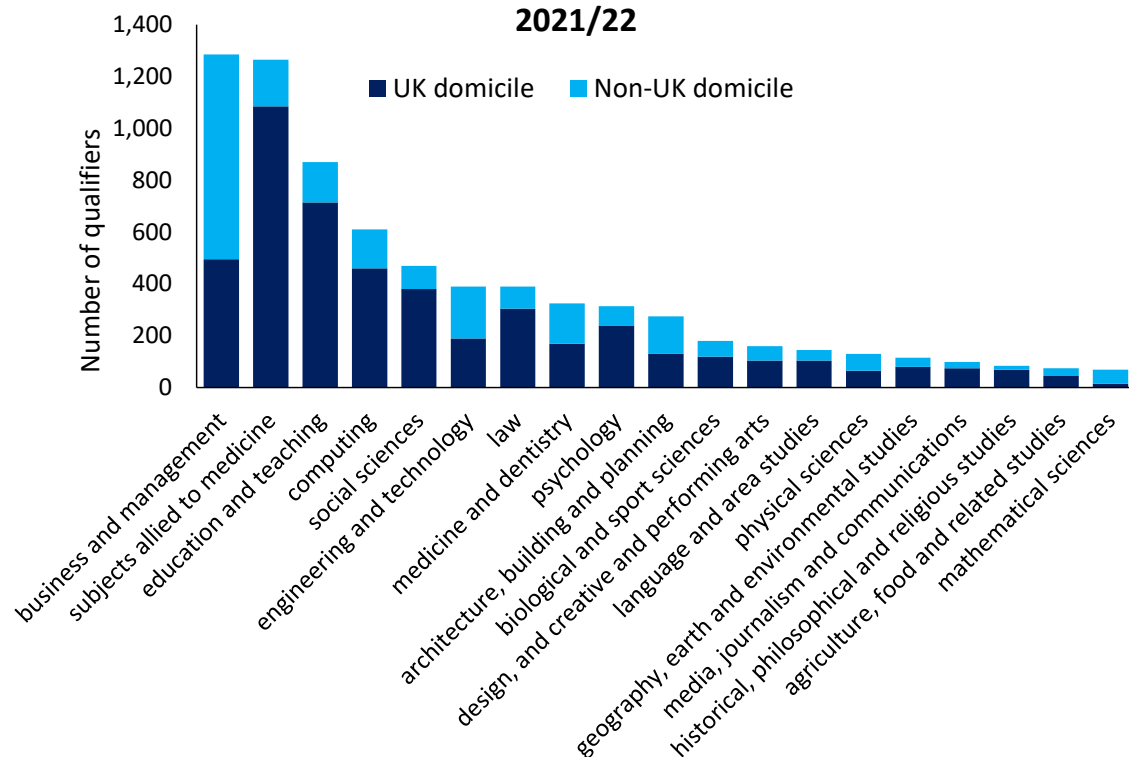
Source: HESA

Almost one-quarter (23%) of international students qualifying with an undergraduate degree from NI HEIs studied law. These international qualifiers account for 37% of total law qualifiers at NI HEIs. This is followed by business and management subjects (22% of total international qualifiers) accounting for 14% of total business and management undergraduate qualifiers at NI HEIs.



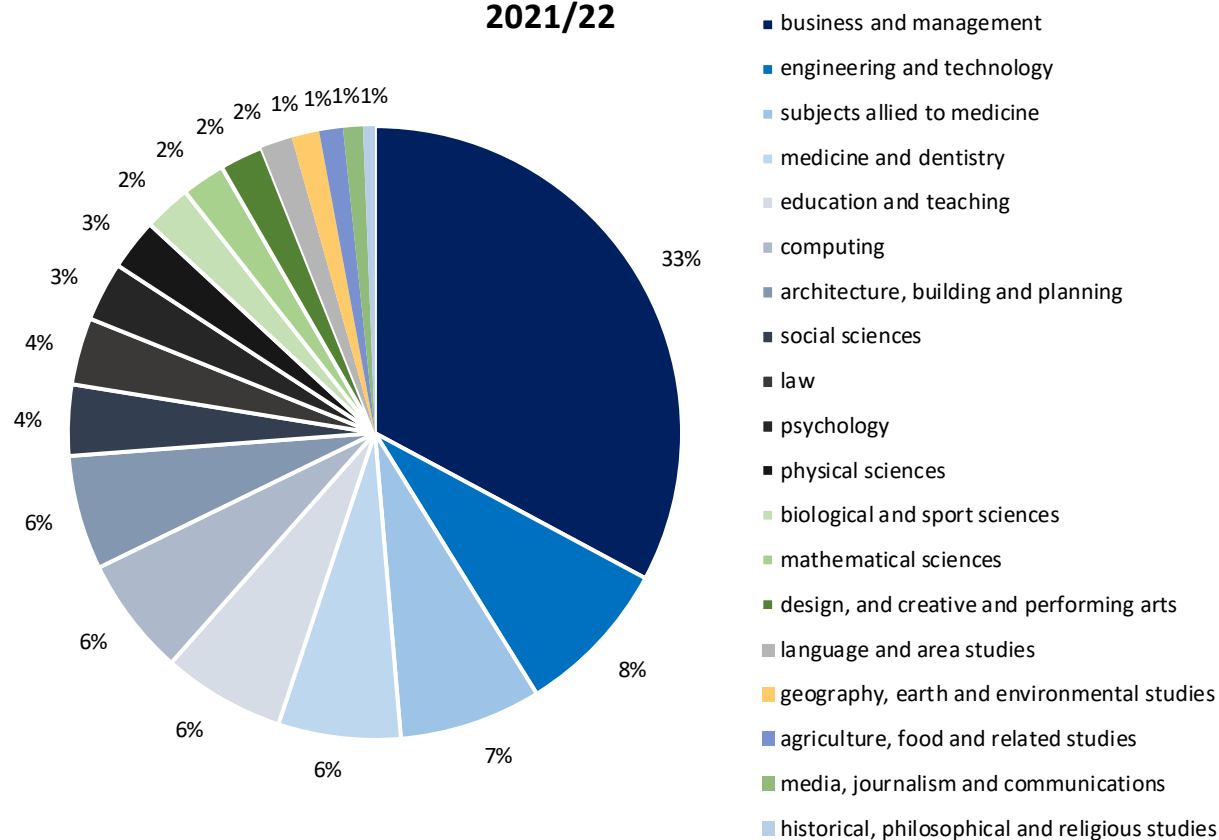
# International students by subject studied – postgraduate

Postgraduate qualifiers by domicile and subject, NI HEIs, 2021/22



Source: HESA

Postgraduate international qualifiers at NI HEIs by subject, 2021/22

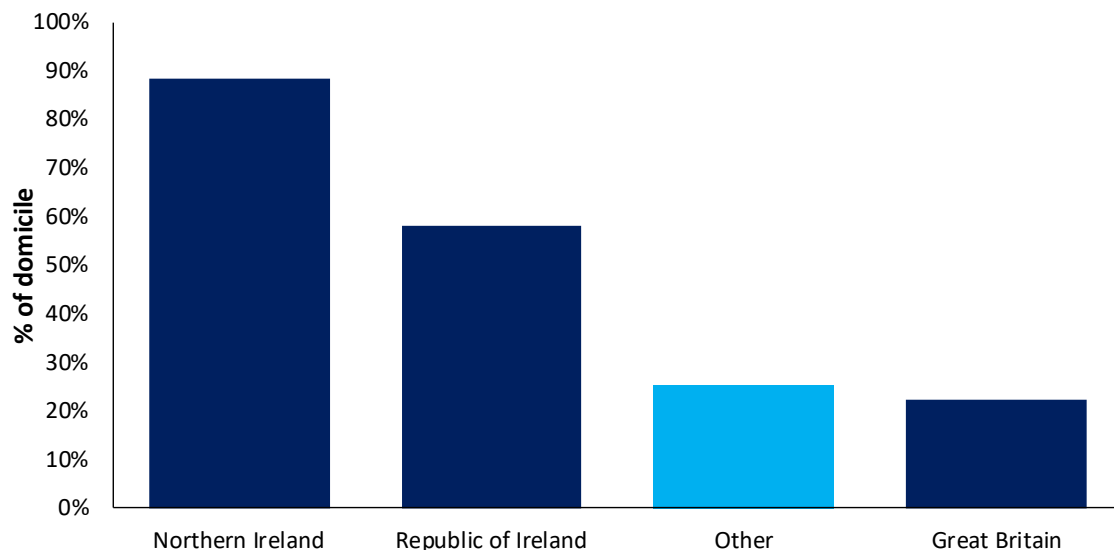


Source: HESA

One-third (33%) of international students qualifying with postgraduate degree from NI HEIs studied a business and management subject, which accounts for three-fifths (61%) of total business and management qualifiers. This is followed by engineering and technology subjects (8% of total international qualifiers) accounting for 51% of total engineering and technology postgraduate qualifiers at NI HEIs.

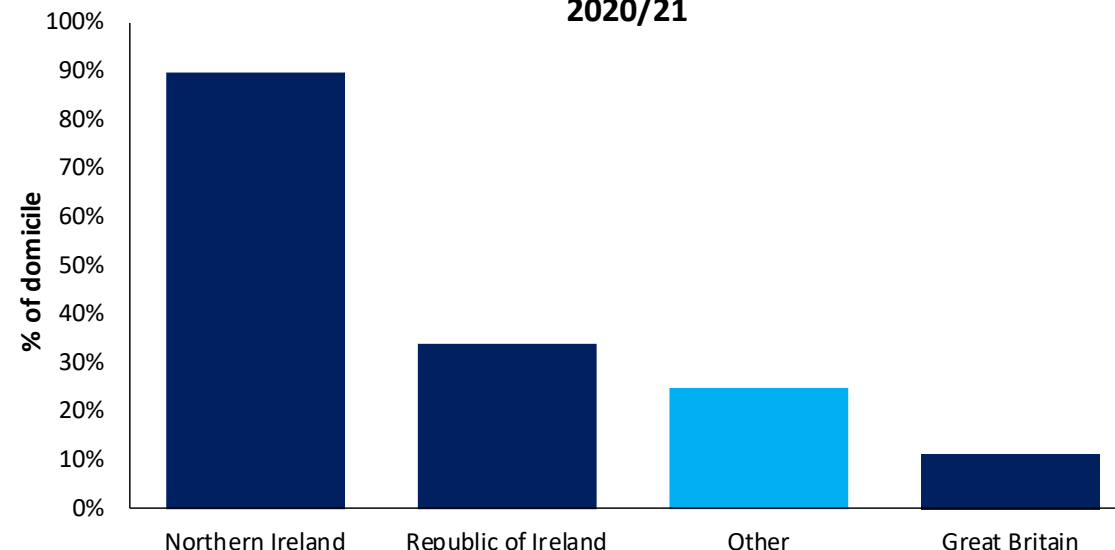
# Few international qualifiers working in NI after graduating

First degree qualifiers, location of employment Northern Ireland (15 months after graduating) by domicile, 2019/20-2020/21



Source: Graduate Outcomes, HESA

Postgraduate qualifiers, location of employment Northern Ireland (15 months after graduating) by domicile, 2019/20-2020/21



Source: Graduate Outcomes, HESA

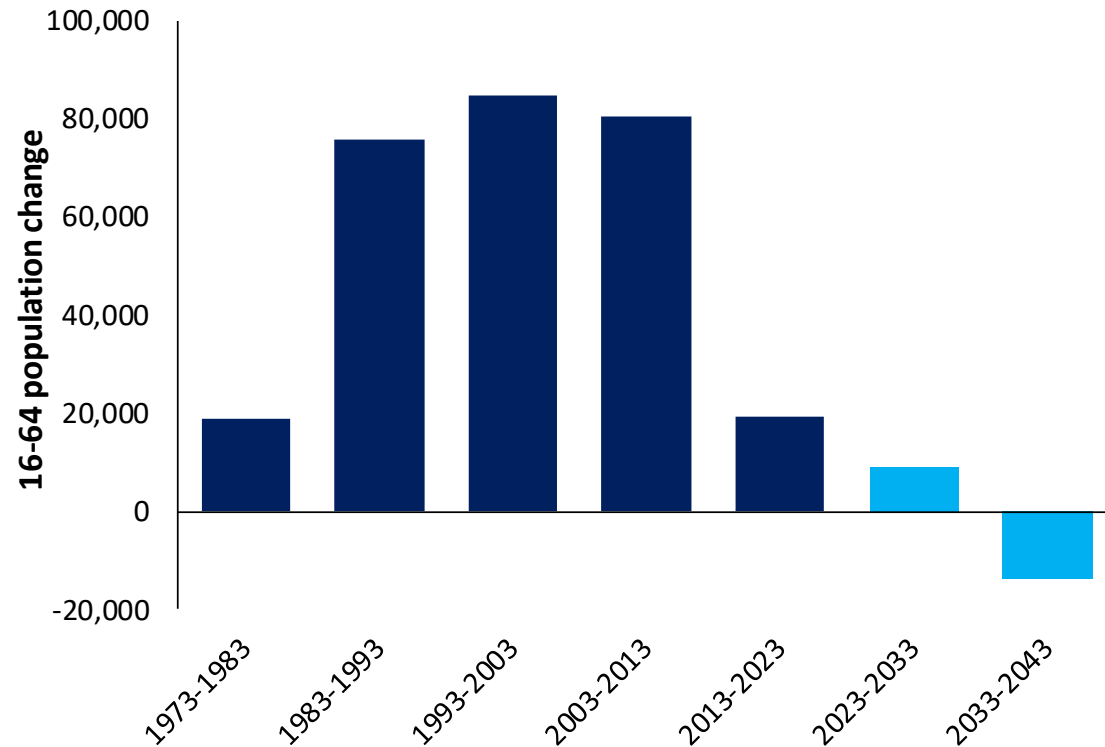
Despite increasing numbers of non-UK domiciled students, few are working in NI 15 months after graduating. That is, approximately 25% of non-UK/RoI students that qualified from an NI HEI with either a first degree or a postgraduate degree are working in NI 15 months after graduating.



## Wider labour market supply context

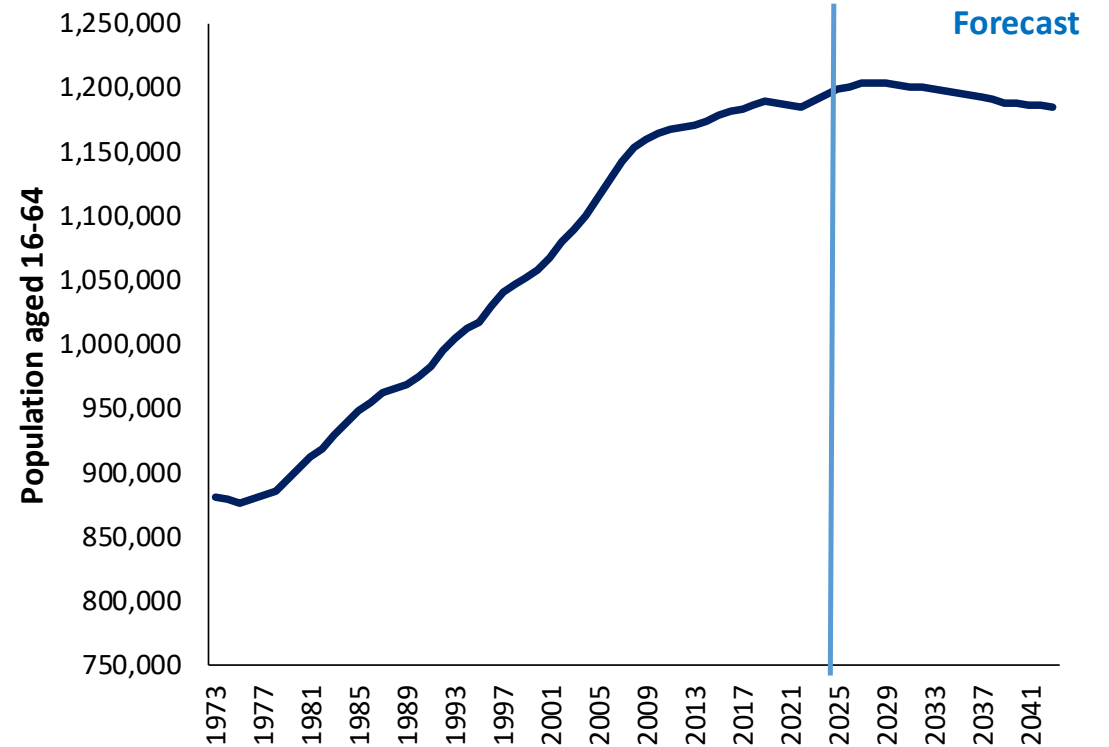
# Working-age population growth slowing

Working-age population (aged 16-64) change by decade, NI, 1973-2043



Source: NISRA, ONS, UUEPC analysis

Working-age population (aged 16-64), NI, 1973-2043

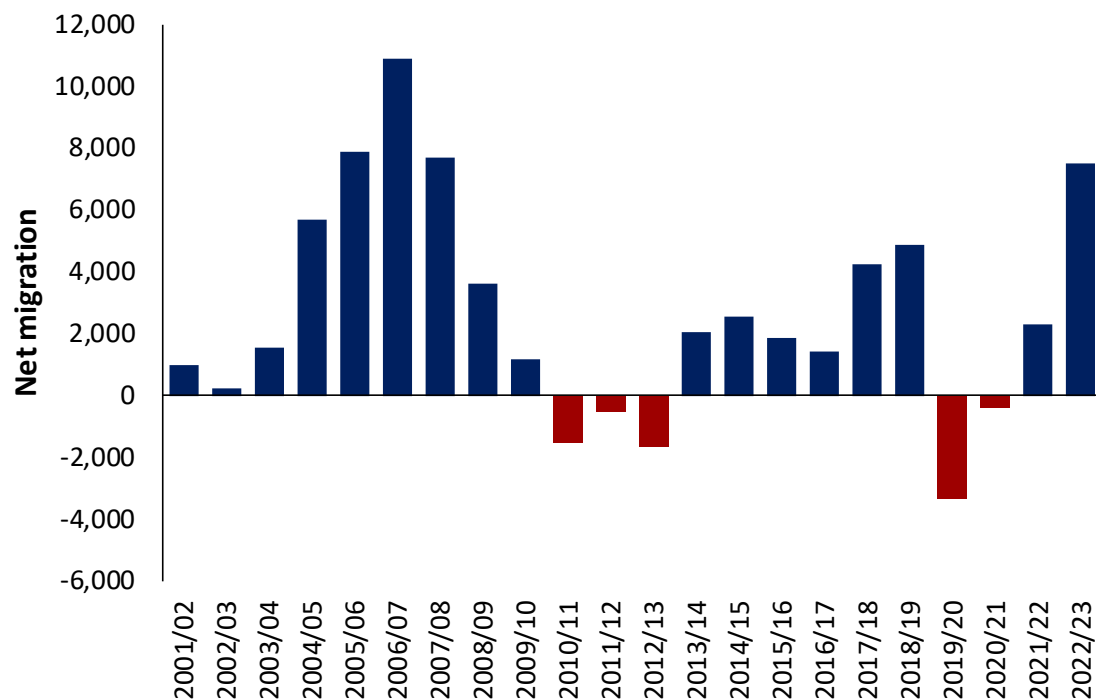


Source: NISRA, ONS, UUEPC analysis



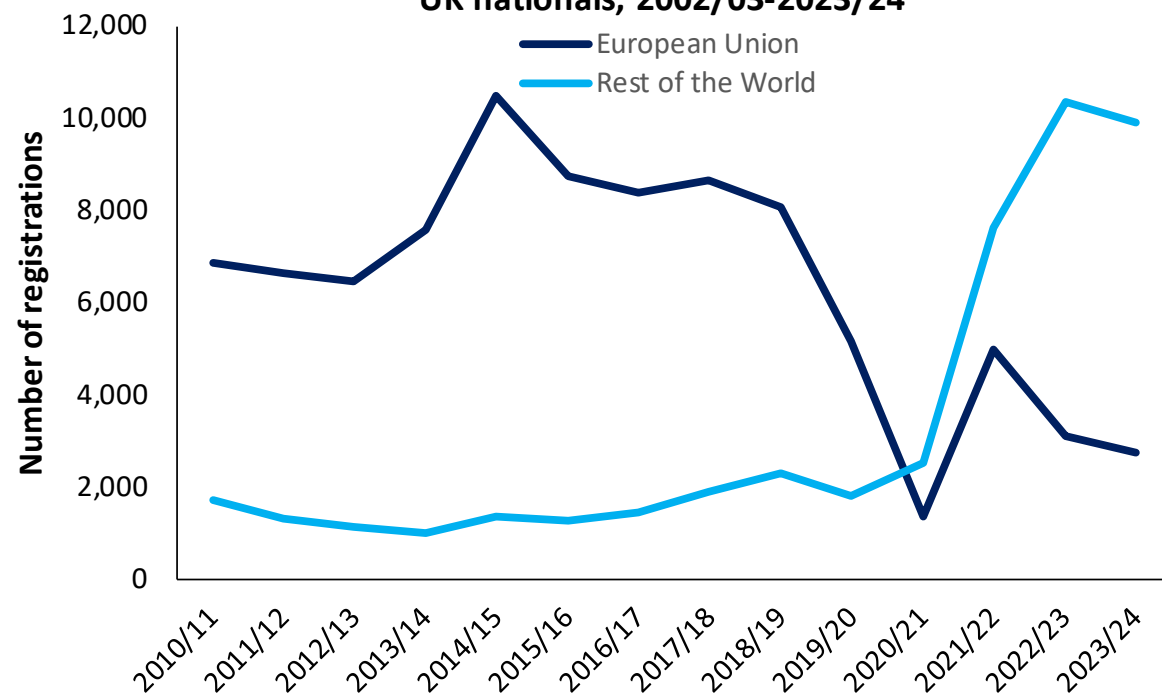
# Higher net-migration and a changing post-Brexit pattern

Total net migration, NI, 2001/02-2022/23



Source: NISRA

NI National Insurance Number (NINo) registrations by non-UK nationals, 2002/03-2023/24

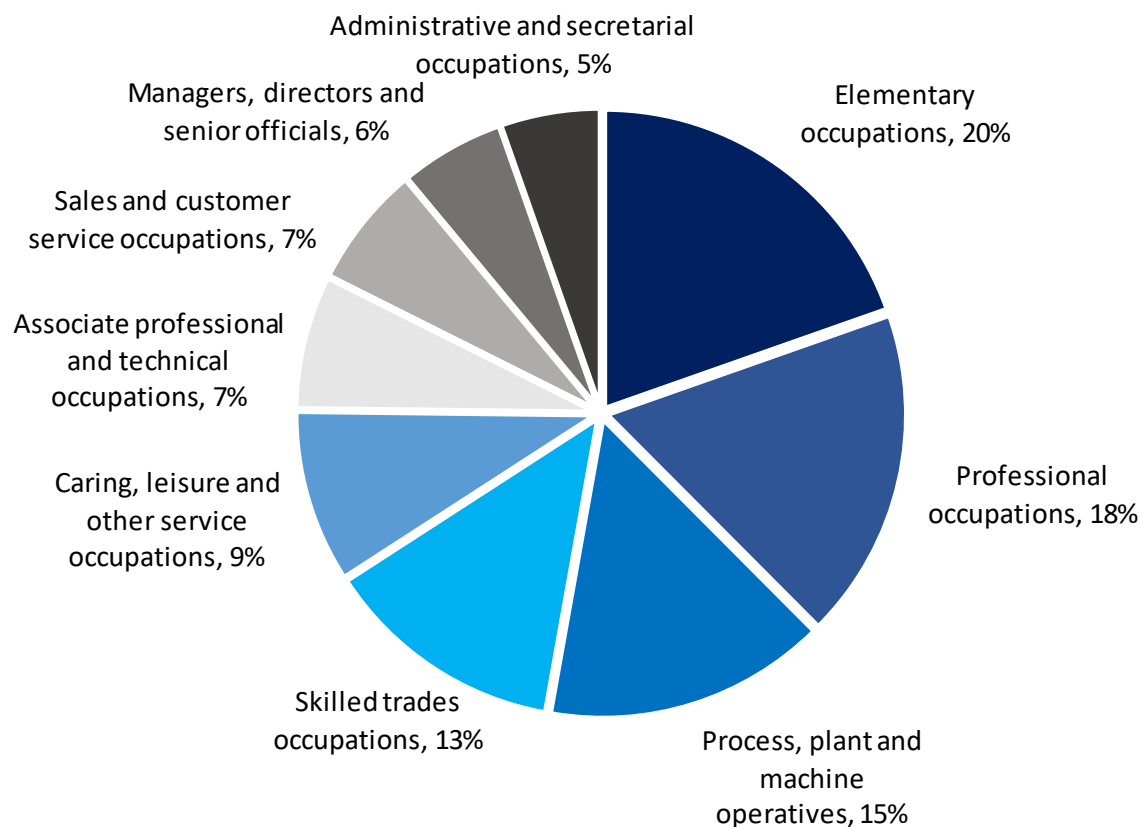


Source: Department of Work and Pensions

In 2022/23 total net migration in NI was at its highest rate in 15 years. The composition of those (from outside UK) entering NI for work has changed in recent years from being predominately individuals from the European Union, to now being predominately individuals from outside the European Union.

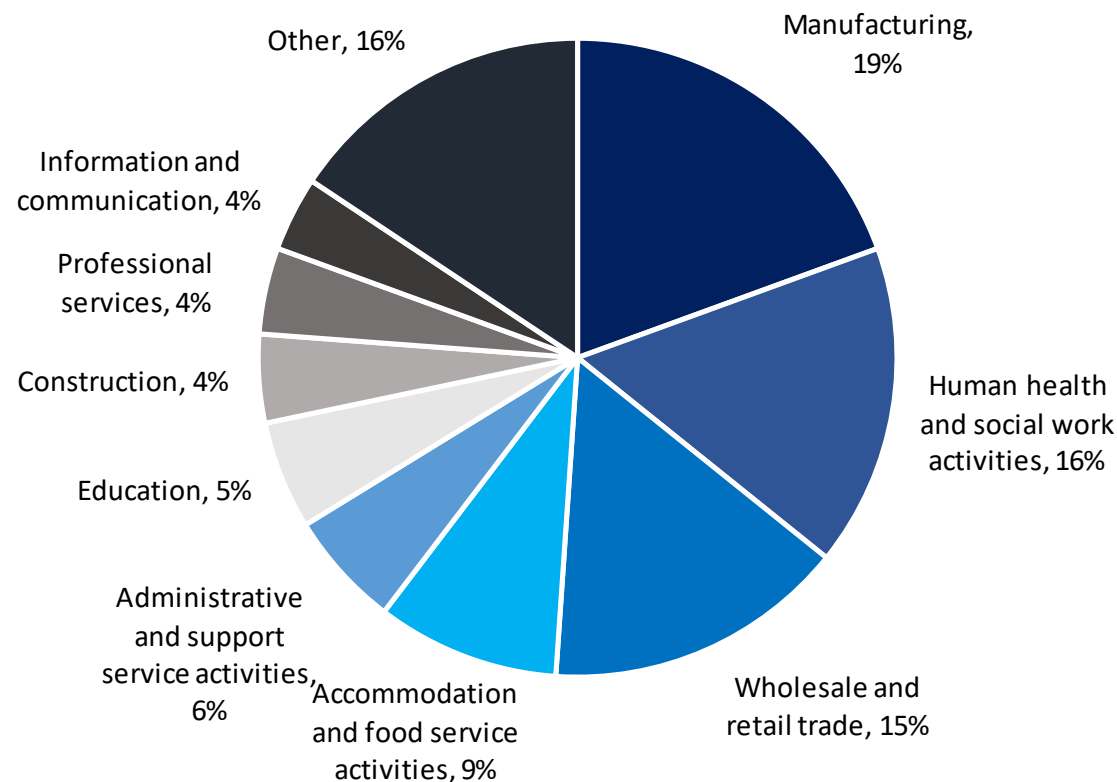
# What sectors/occupations do migrants work in?

Employed population born outside UK & RoI by occupation, NI, 2021



Source: Census 2021

Employed population born outside UK & RoI by sector, NI, 2021



Source: Census 2021

(im)balance

section 4



# Demand side versus supply side concepts



# The supply/demand (im)balance

The supply/demand (im)balance or “*supply gap*” represents the net requirement of individuals from education and migration (demand) **minus** qualifiers from education institutions entering the labour market at a level on par with their qualifications (supply) i.e. demand net supply.

The information presented within this section is based on an annual average over the 10-year period 2023-2033 under the high growth scenario. For example, if education related subjects is oversupplied by +70, that represents an average annual oversupply of 70 per annum within that subject group over the 10-year period 2023-2033. Similarly, if computing graduates are undersupplied by -450 graduates, that represents an average annual undersupply of 450 graduates within that subject group over the next decade. This concept is referred to as the **average annual supply gap or (im)balances\***.

Estimating a supply gap is not an exact science. The majority of subject areas do not directly map across to a single occupation and qualifications are capable of fulfilling demand in any occupation in the economy. Therefore, subject areas with balances of +/- 50 can be broadly considered to be in balance.

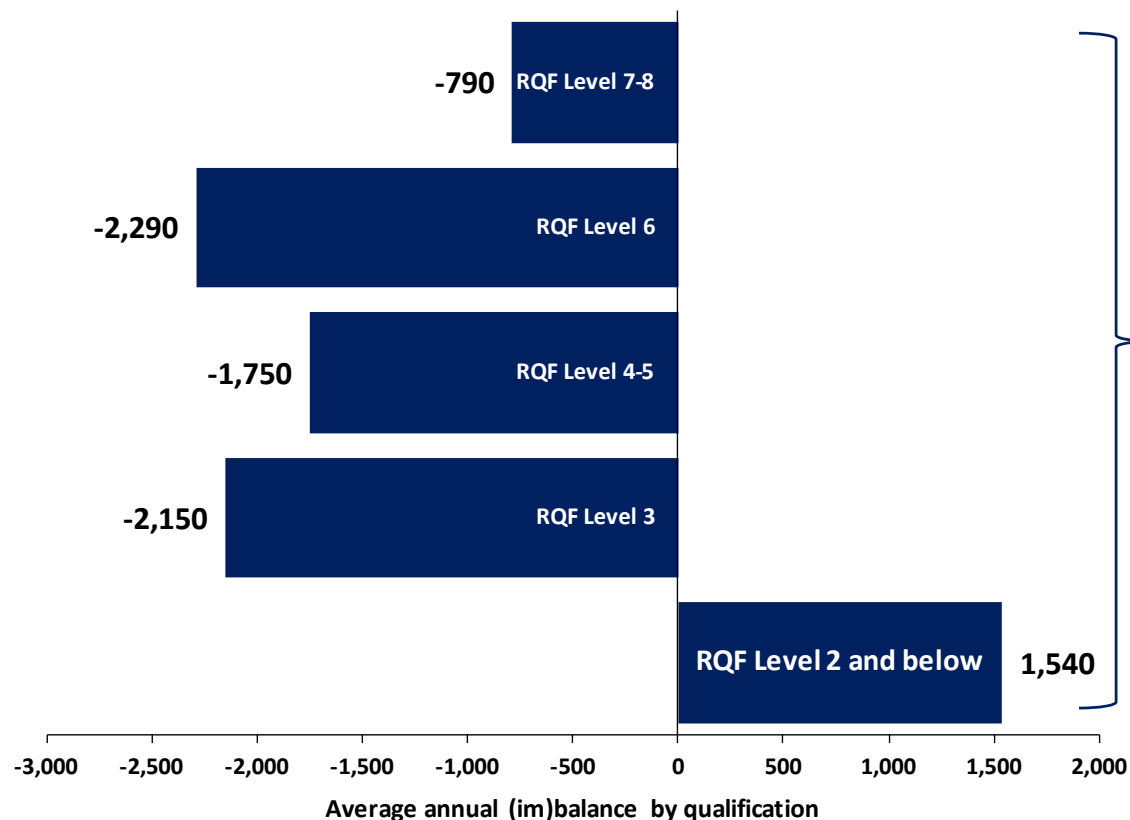
This section identifies the annual average supply gap by qualification level (RQF) and subject studied (at RQF level 4 and above only) - based on subject classification CAH and SSAs. As students tend to study more than one subject area at RQF level 3 and below, for that qualification area demand is only presented at a sector level (and not a subject level)\*. Therefore, subject supply gaps are not produced at RQF level 3 and below.

\*See Annex E1 and E2 for detailed subject (im)balances at RQF level 6+ and RQF Level 4-5 respectively

\*\*See Annex D1 for RQF level 3 and below demand results.

# (im)balances by qualification

Average annual (im)balance by qualification (RQF), NI, 2023-2033



An average overall undersupply of -5,440 individuals per annum indicates a need to reactivate underutilised

Source: UUEPC

**Note:** The supply gaps in the above chart have been calculated based on 'net supply'. This takes account of migration patterns amongst qualifiers at NI HEIs and NI domiciled qualifiers qualifying from GB HEIs, in addition to labour force participation.

**Note:** For some qualifiers it may be the case they require additional employability skills before accessing employment in a job commensurate to their level of qualification.

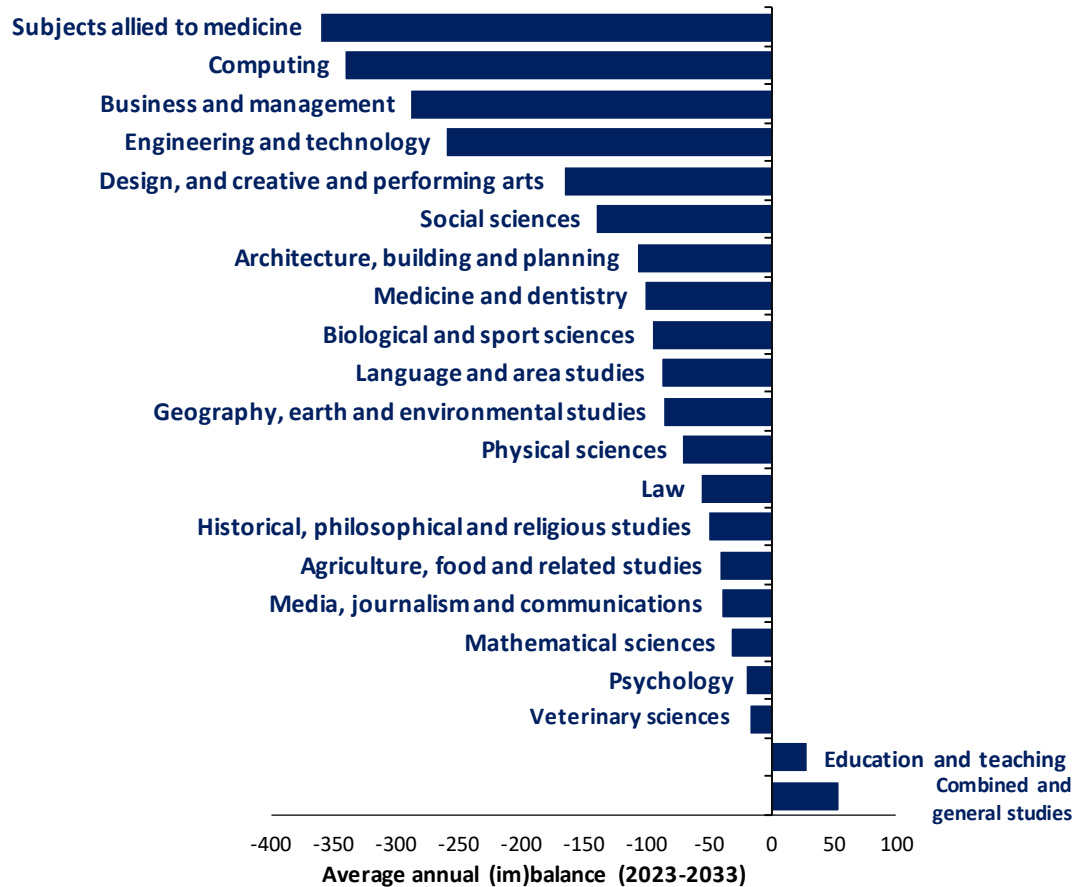


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## Undergraduate (im)balance

(Im)balance by subject (broad), RQF Level 6, NI, 2023-2033 (annual average)

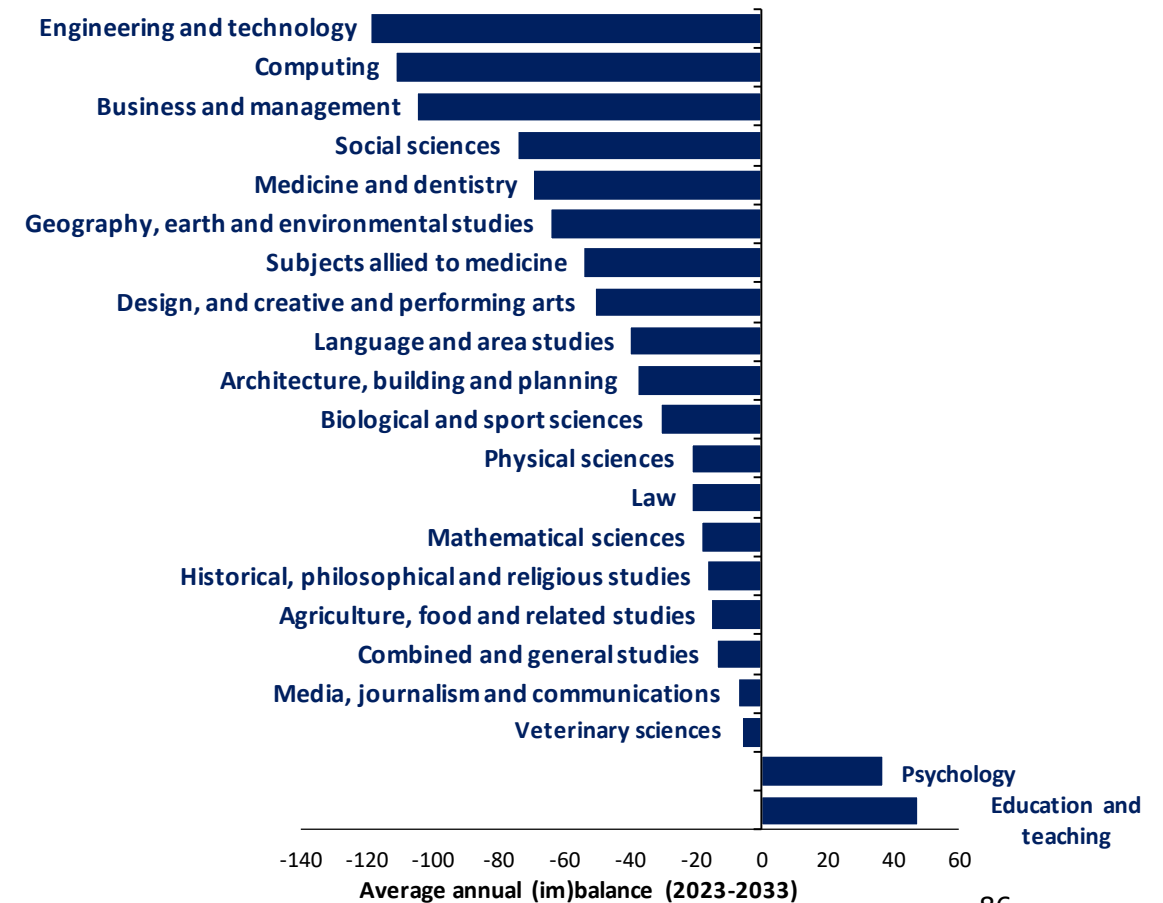


Source: UUEPC

# (im)balances by subject

## Postgraduate (im)balance

(Im)balance by subject (broad), RQF Level 7-8, NI, 2023-2033 (annual average)

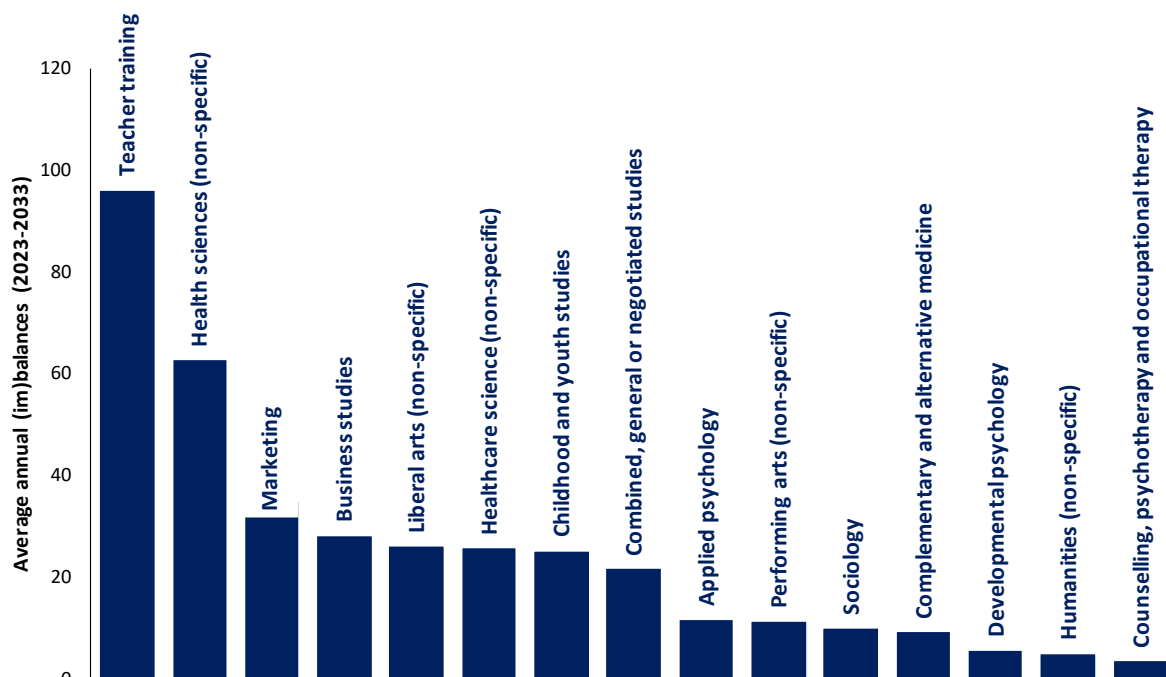


Source: UUEPC

# Supply gap subjects (detailed)

## Degree level and above oversupply (detailed subjects)

Most oversupplied subjects (detailed), RQF Level 6+, NI, 2023-2033 (annual average)

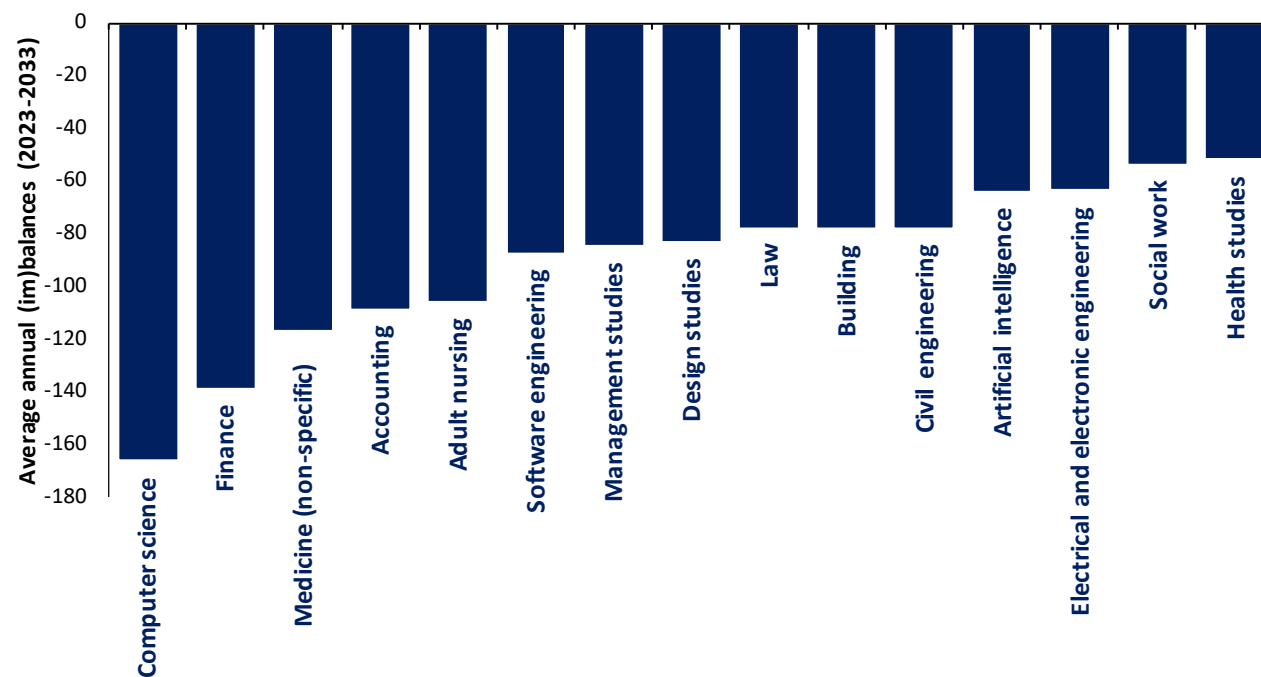


Source: UUEPC

The top 5 oversupplied subjects (CAH, 3-digit) account for 63% of the top 15 oversupplied subjects.

## Degree level and above undersupply (detailed subjects)

Most undersupplied subjects (detailed), RQF Level 6+, NI, 2023-2033 (annual average)



Source: UUEPC

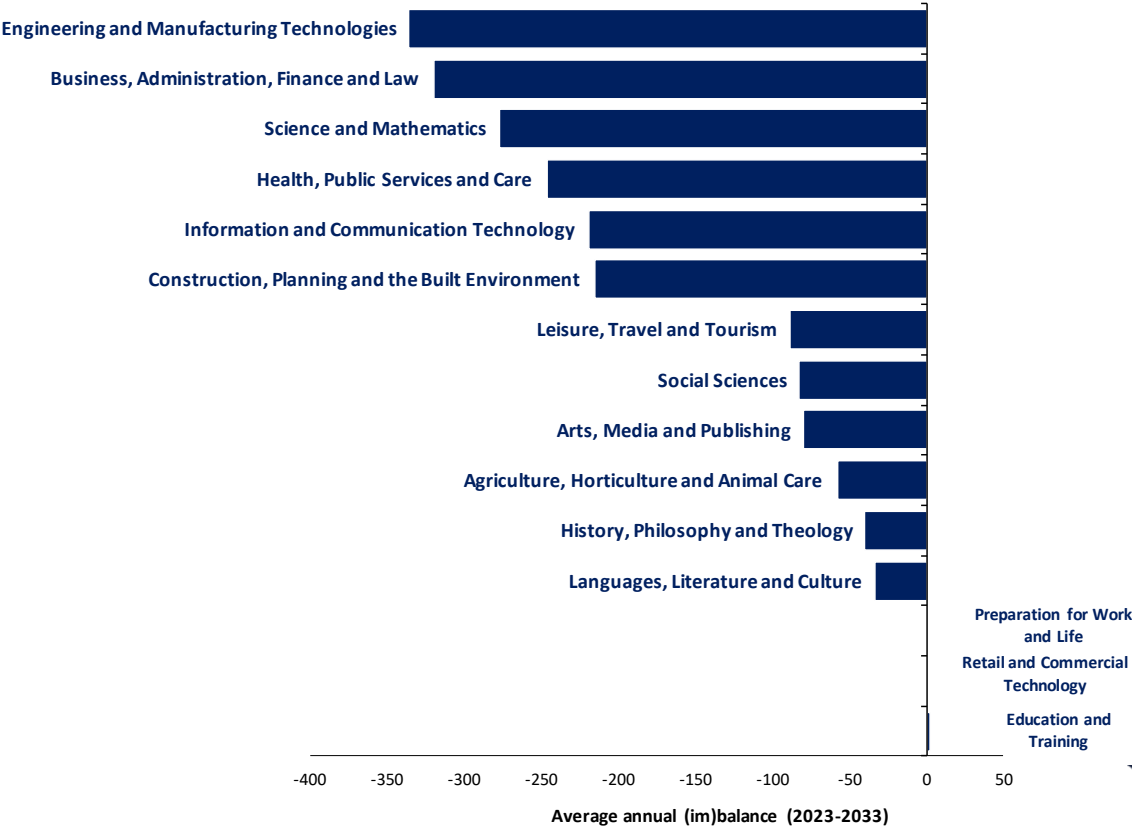
The top 5 undersupplied subjects (CAH, 3-digit) account for 47% of top 15 undersupplied subjects.



# Supply gap by sub-degree

## Sub-degree (im)balance

(Im)balance by subject (broad), RQF Level 4-5, NI, 2023-2033 (annual average)



Source: UUEPC

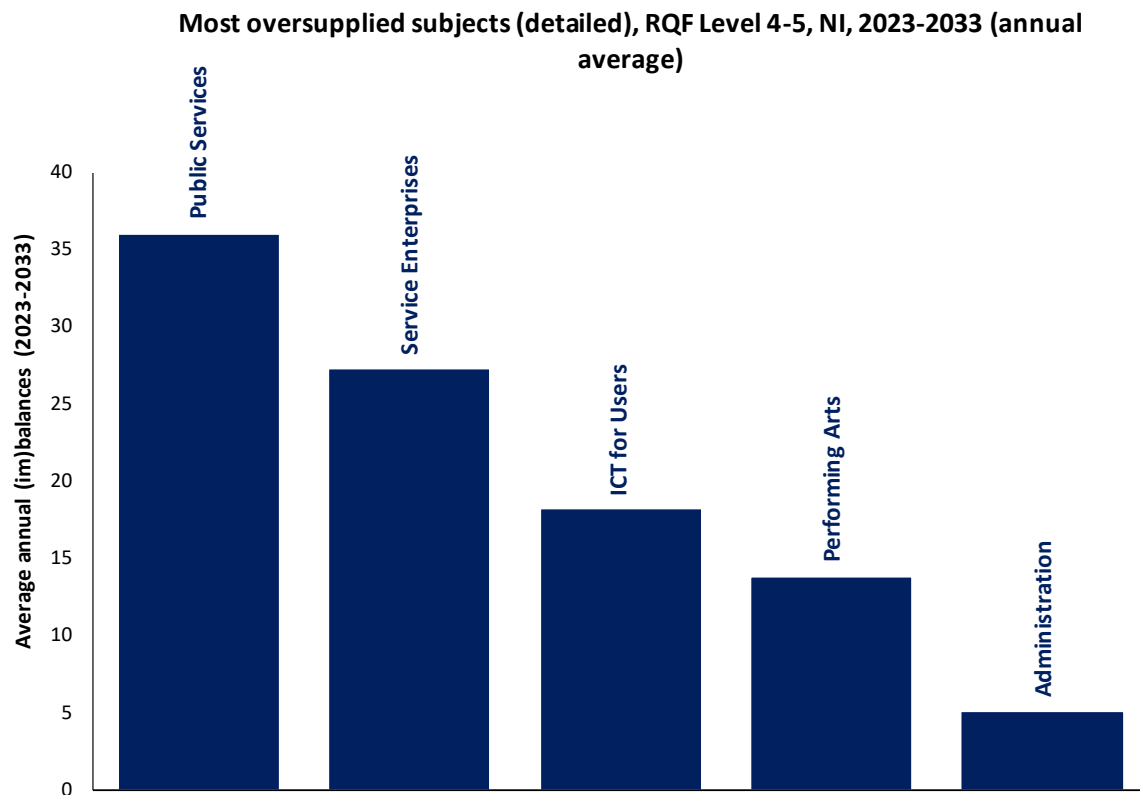


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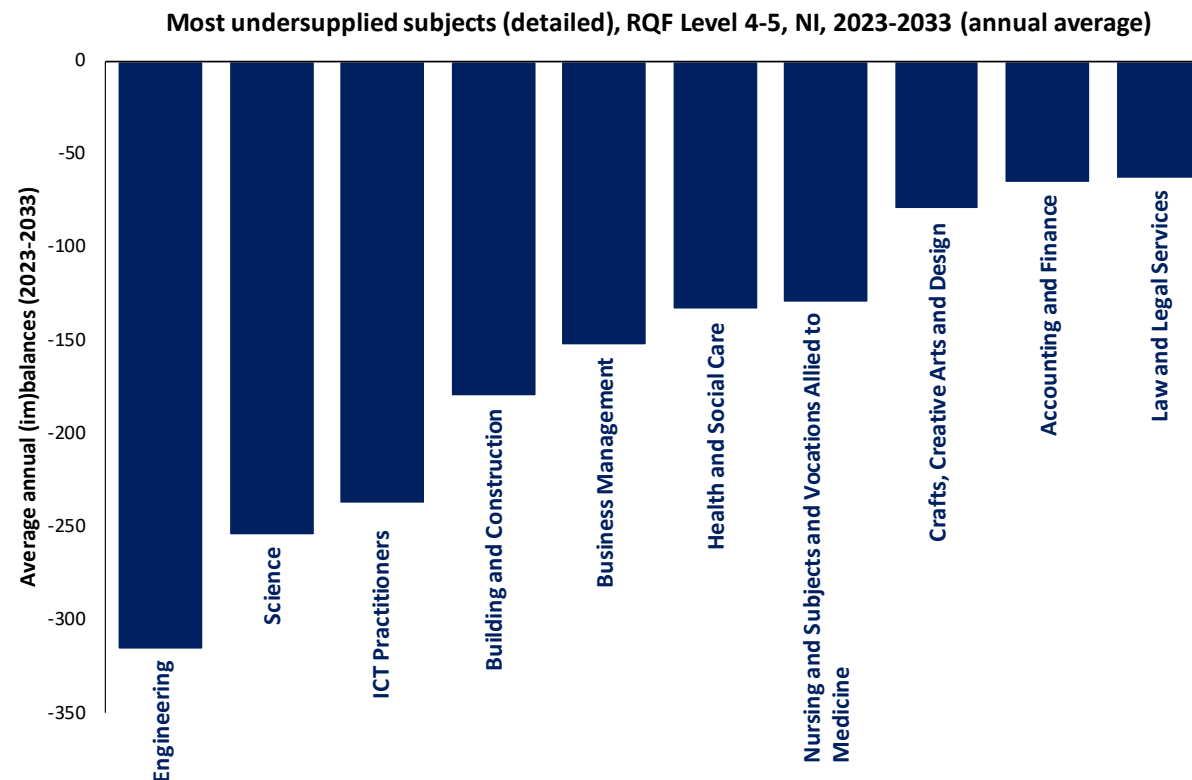
# Supply gap by sub-degree subjects (detailed)

Sub-degree oversupply (detailed subjects)



Source: UUEPC

Sub-degree undersupply (detailed subjects)



Source: UUEPC

# Careers information

Section



# Earnings and employment prospects



# Careers information

Decisions and choices made by young people during their journey in education shapes their labour market prospects (e.g. employment and earnings prospects).

For example, the higher a person's qualifications, the higher their earnings and employment prospects are likely to be. With that, employment opportunities and earnings prospects differ by subject area studied. Finally, a person's qualification level and subject studied may impact the sector they are most likely seek an employment opportunity within.

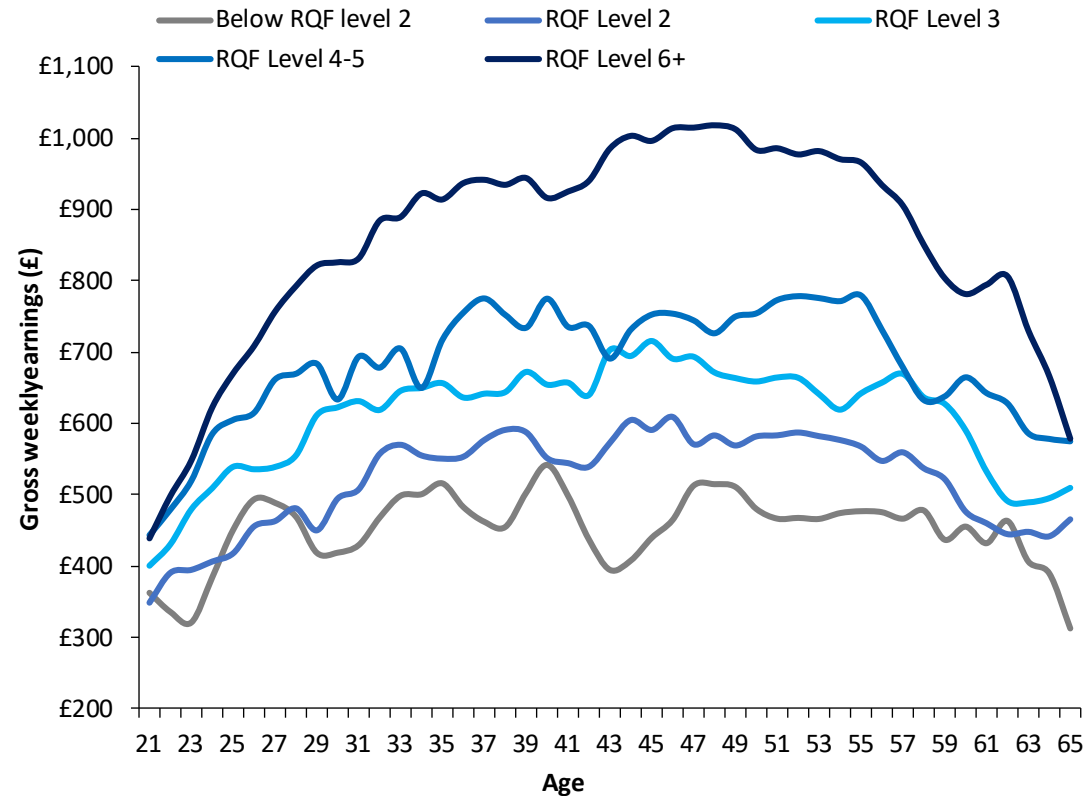
To adequately prepare young people for their future career it is important such careers information is widely accessible.

This section seeks to identify headline careers information including:

- Labour market prospects by qualification level
- Skills mix by labour market status (i.e., employed, unemployed, inactive)
- Higher qualified accounting for higher proportions of labour inputs
- Graduate reflections
- Training and adult learning
- Where are graduates employed?

# Earnings progression by age and qualification

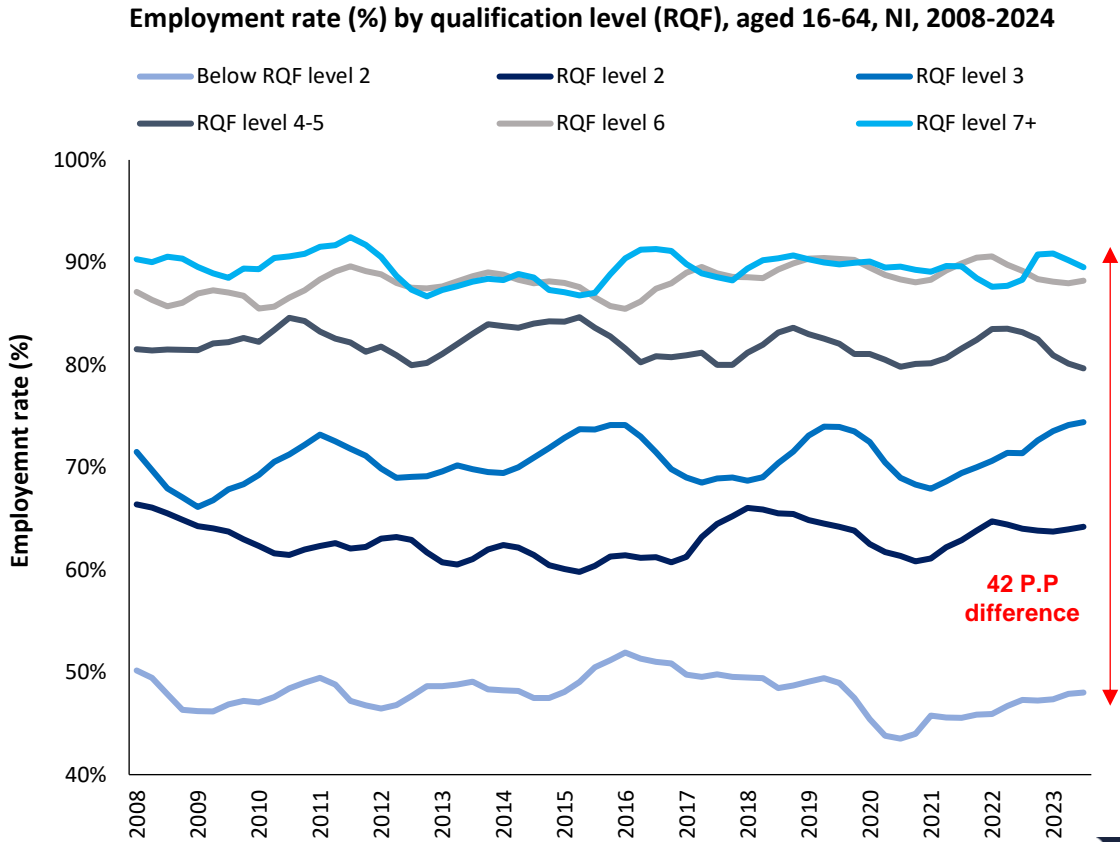
Gross weekly earnings (£) by age and qualification (RQF), UK, Q2 2024



Source: Labour Force Survey, UUEPC analysis  
Note: Figures are based on a 4-quarter rolling average



# Employment rate gap between the highest and lowest qualified

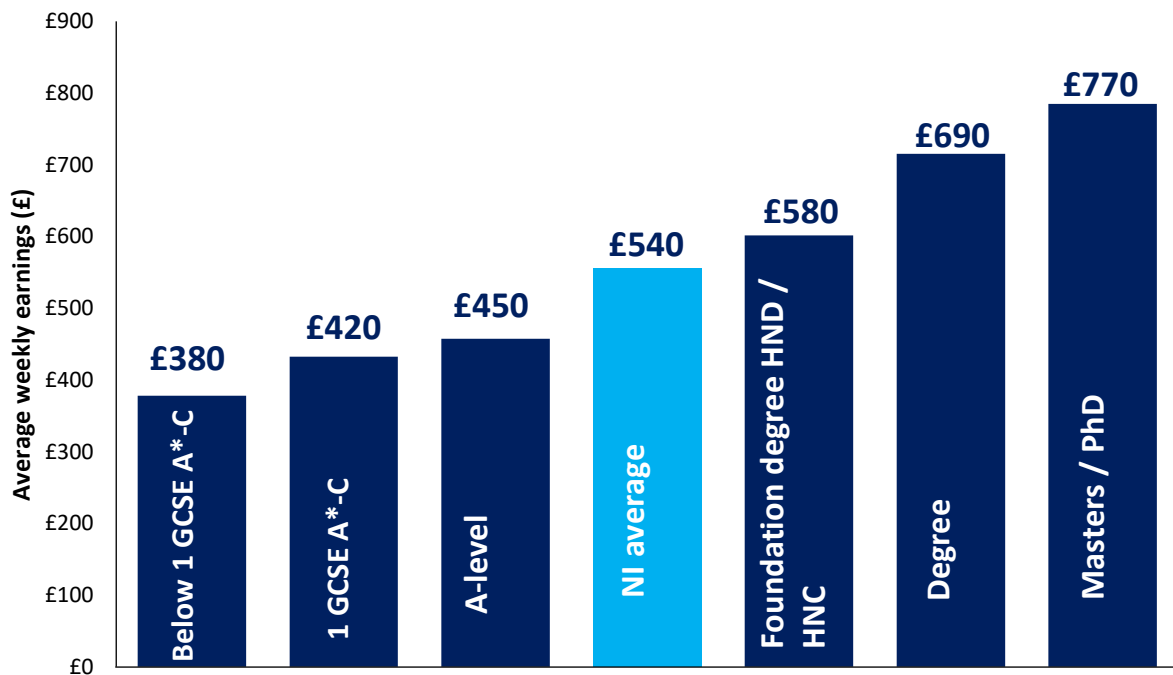


Source: Labour Force Survey, UUEPC analysis  
Note: Figures are based on a 4-quarter rolling average



# Employment and earnings prospects

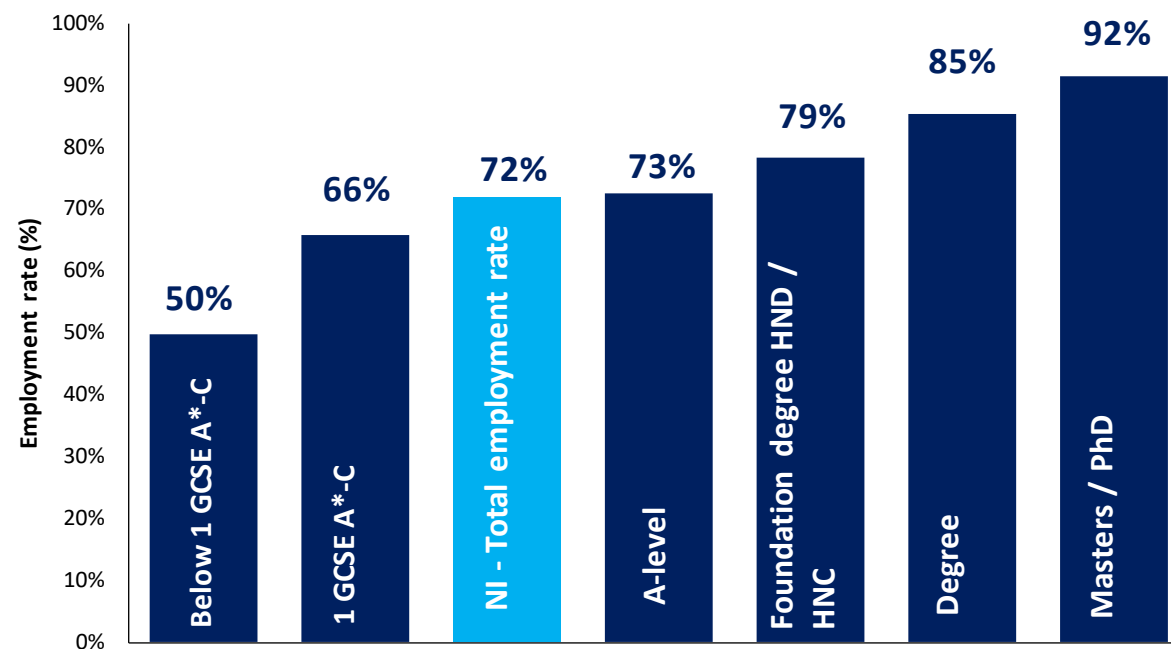
Average weekly earnings (£) by qualification level, NI, Q2 2024



Source: Labour Force Survey, UUEPC analysis

Note: Figures are based on a 4-quarter rolling average

Employment rate (%) by qualification level, NI, Q2 2024



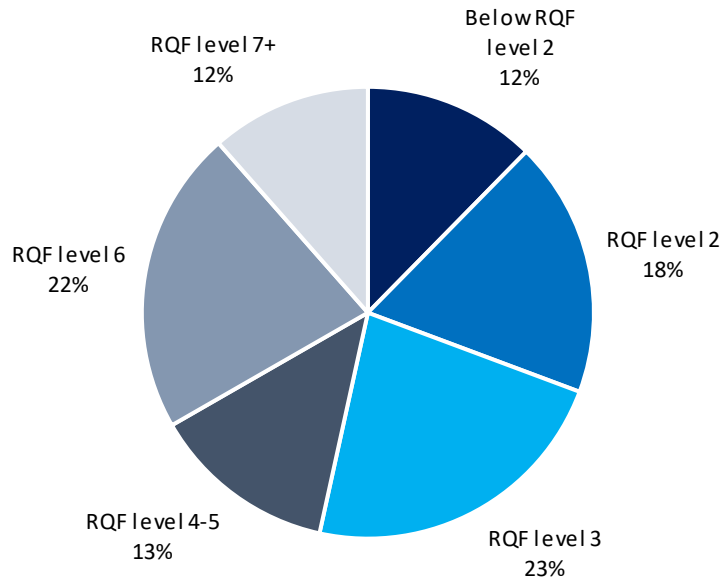
Source: Labour Force Survey, UUEPC analysis

Note: Figures are based on a 4-quarter rolling average



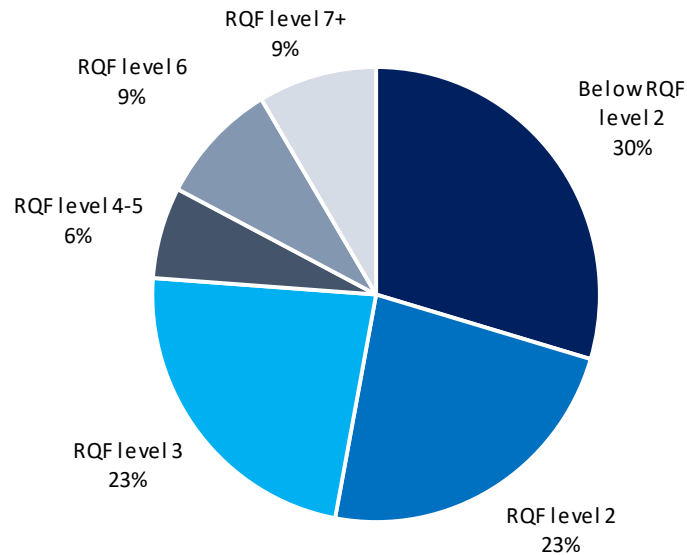
# Workless population aligned to lower qualifications

**Employed qualification profile (RQF) aged 16-64, NI, Q2 2024**



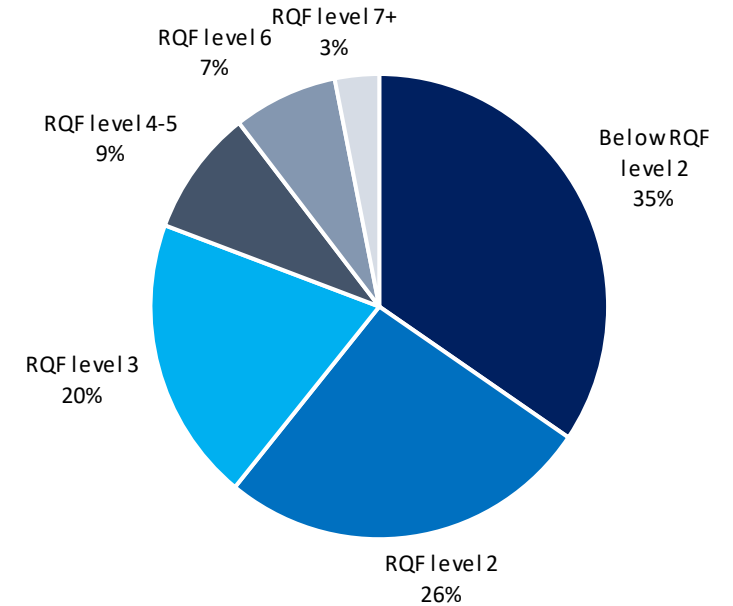
**Source:** Labour Force Survey, UUEPC analysis  
**Note:** Figures are based on a 4-quarter rolling average

**Unemployed qualification profile (RQF) aged 16-64, NI, Q2 2024**



**Source:** Labour Force Survey, UUEPC analysis  
**Note:** Figures are based on a 4-quarter rolling average

**Economically inactive qualification profile (RQF) aged 16-64, NI, Q2 2024**



**Source:** Labour Force Survey, UUEPC analysis  
**Note:** Figures are based on a 4-quarter rolling average

It is evident the qualification profile of those out of work does not align with the qualification profile of those in work. For example, around one in ten (12%) of the working-age population in work have less than RQF level 2 qualifications, compared to over one in three (35%) of the economically inactive population. This suggests those who are out of work may need to engage in upskilling/reskilling in order to access employment opportunities.

# Higher qualifications account for a majority of NI labour inputs

Proportion of total actual hours worked, by qualification level  
2008-2024

Qualification Level	2008	2018	2024
Below RQF Level 2	22%	15%	13%
RQF Level 2-3	42%	42%	39%
RQF Level 4+	35%	43%	48%

**Source:** Labour Force Survey, UUEPC analysis

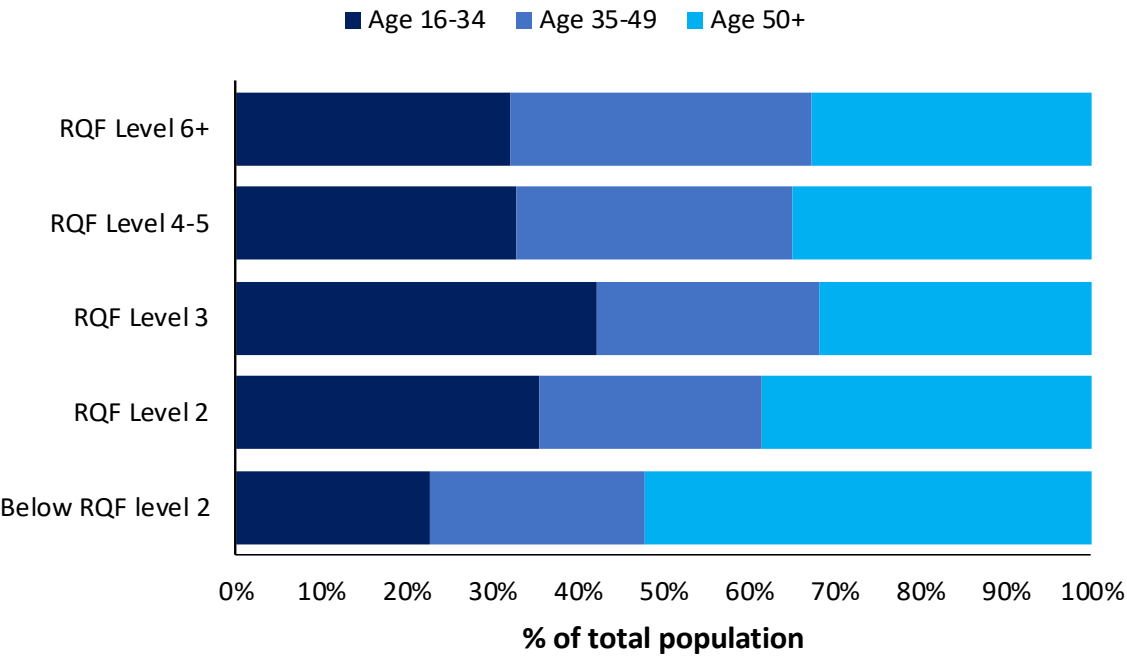
**Note:** Figures are based on a 4-quarter rolling average

Those with tertiary level or above (RQF Level 4+) qualifications account for almost half (48%) of total hours worked in the economy. That is up from just over one-third (35%) in 2008. Oppositely, those with lower-level qualifications (below RQF level 2) account for 13% of total hours worked, compared to over one-fifth (22%) in 2008. This suggests an increasing weighting towards higher qualified individuals across the workforce.



# Qualification profile by age

Qualification level (RQF) by age group, NI, Q2 2024



**Source:** Labour Force Survey

**Note:** Figures refer to a 4-quarter rolling average





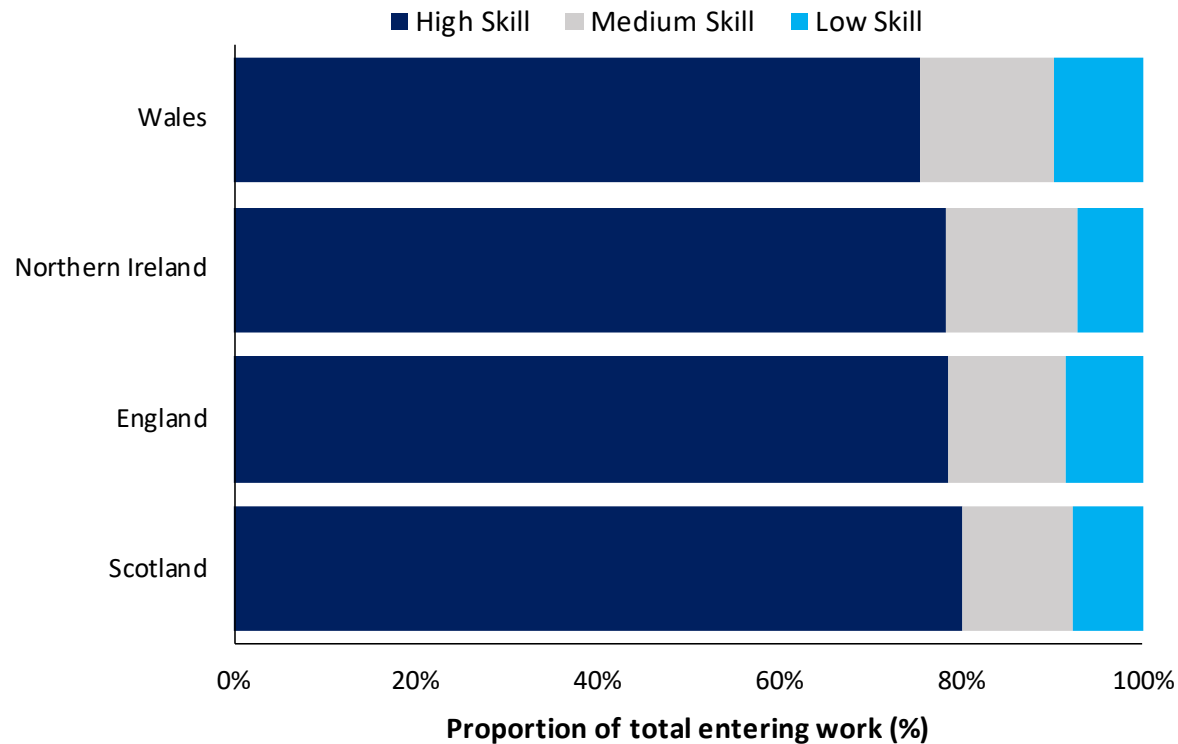


# Graduate reflections



# Graduates likely to move into high skill employment

Occupation of graduates (15 months after graduating) by occupation skill and country of provider, NI, 2021/22

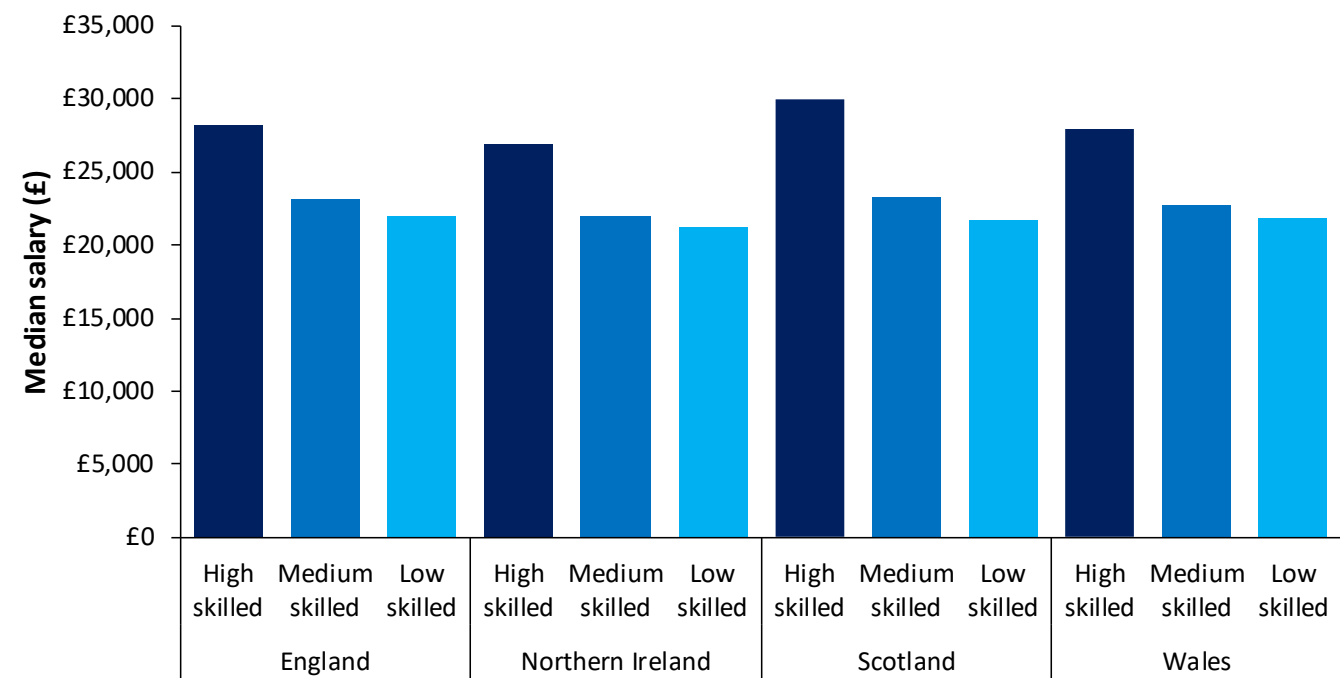


Source: HESA



# High skill employment aligned with higher wage

Median salary of graduates obtaining first degree (15 months after graduating) by occupation skill and country of provider, 2021/22

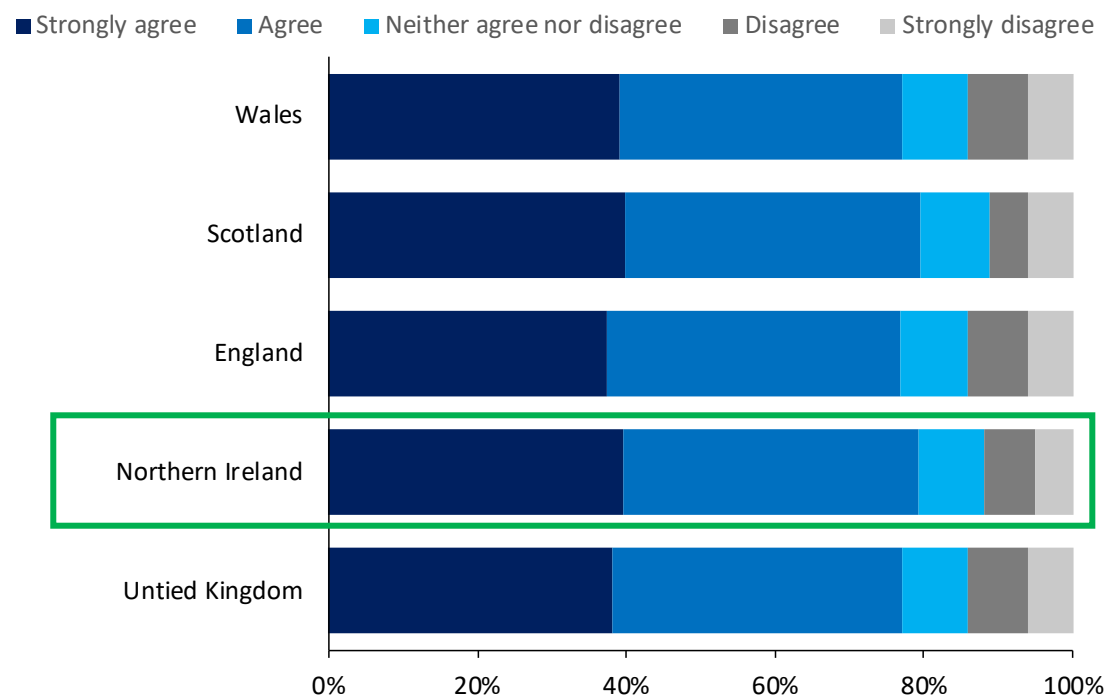


Source: HESA



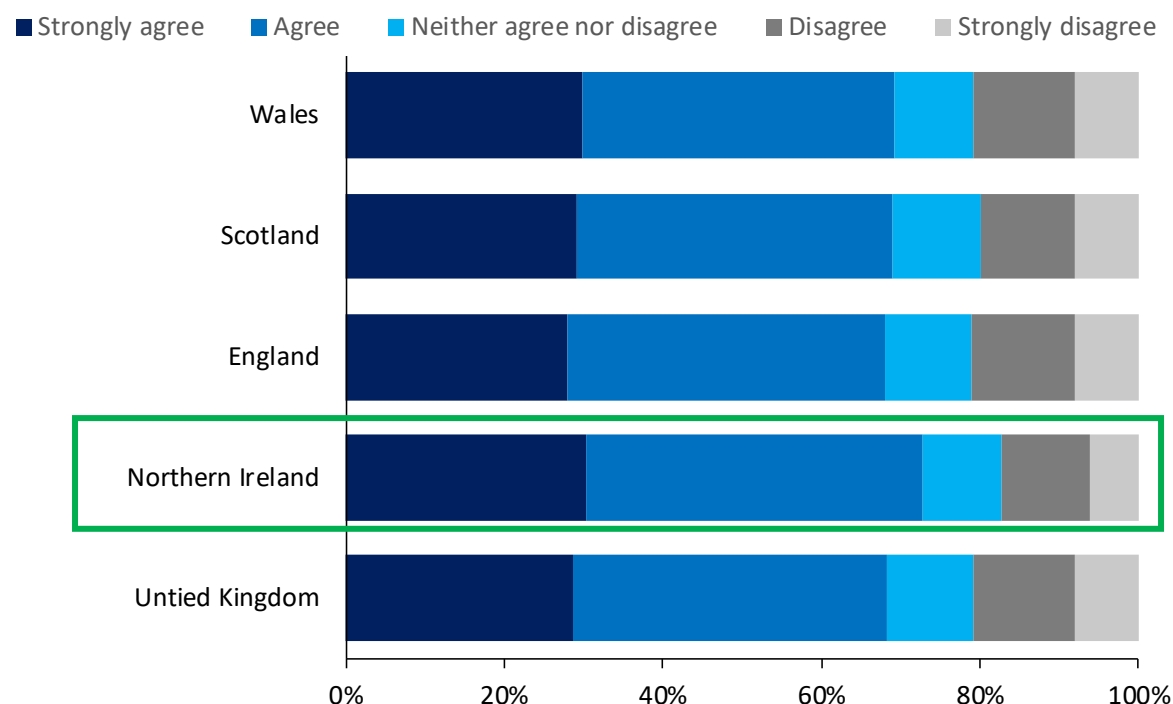
# Graduates reflect positively on studies alignment with careers

**Graduate reflection: my current activity fits with my future plans by country of provider, 2021/22**



Source: HESA

**Graduate reflection: I am using what I learnt during my studies in my current activity by country of provider, 2021/22**



Source: HESA



# Training and adult learning



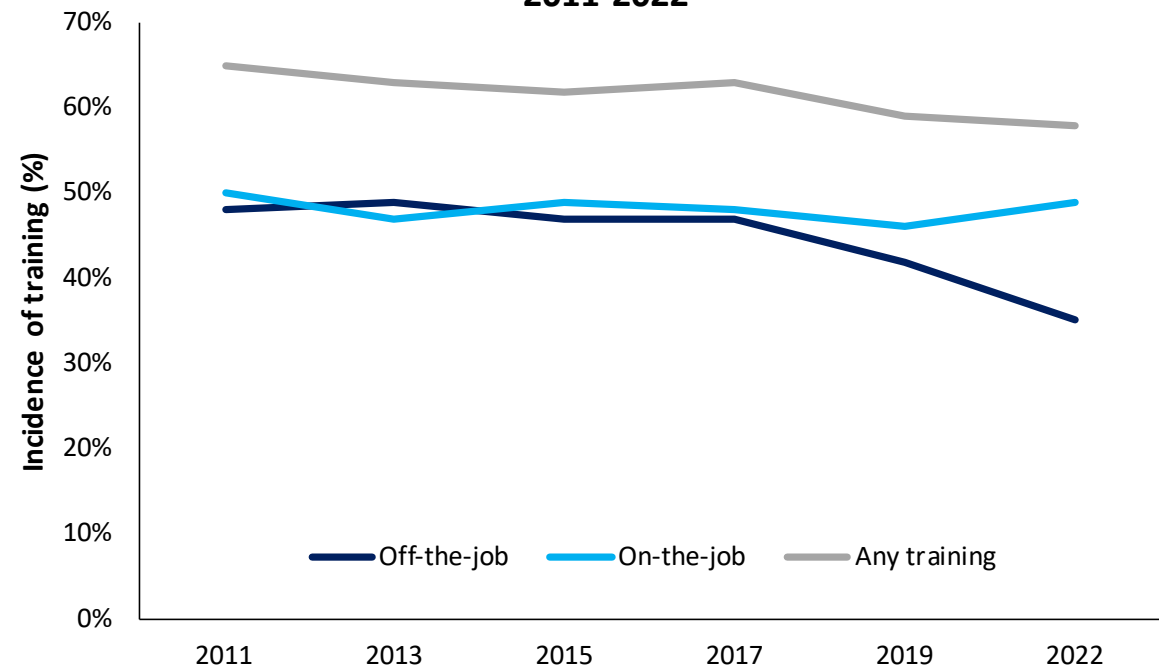
The importance of lifelong learning (e.g. upskilling, reskilling) cannot be understated in addressing skills gaps across the economy. The ability for individuals to quickly adapt to the changing working world will help build improved labour market resilience and lower worker vulnerabilities.

However, the incidence and investment in training has been declining across NI employers. In 2011 around half (48%) of employees received some form of 'off-the-job' training. Just over a decade later this figure has declined to just over one-third (35%).

This decline is increasingly worrying as NI has also tended to perform poorer than UK counterparts in relation to the incidence of training in work.

# Lifelong learning

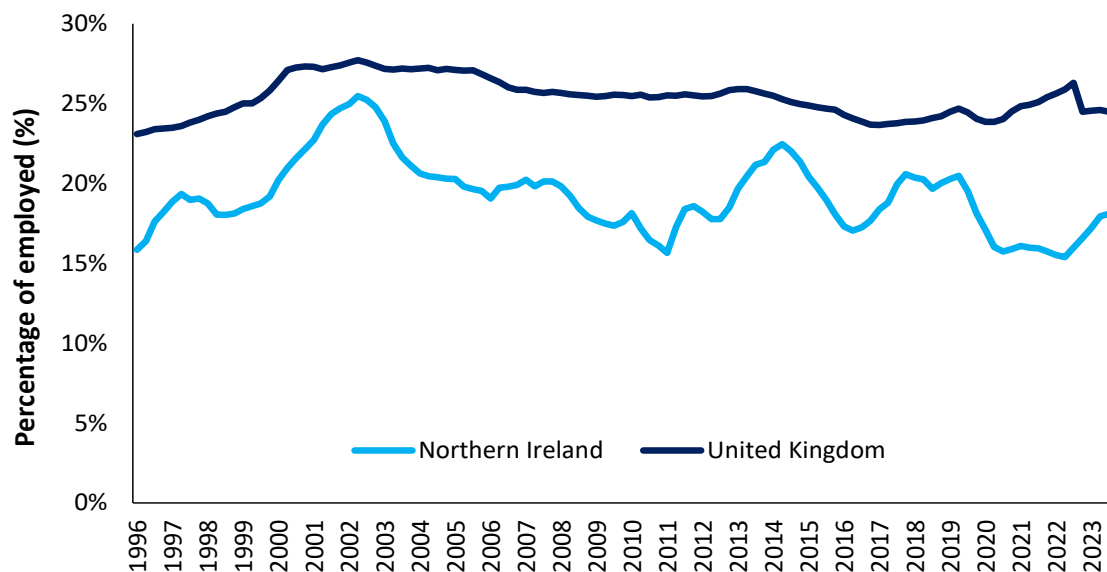
Incidence of any training (all establishments) by type, NI, 2011-2022



Source: Employer Skills Survey

# Job related training low relative to other parts of UK

Employed receiving job related training or education (% of employed), aged 25-64, NI & UK, 1996-2024

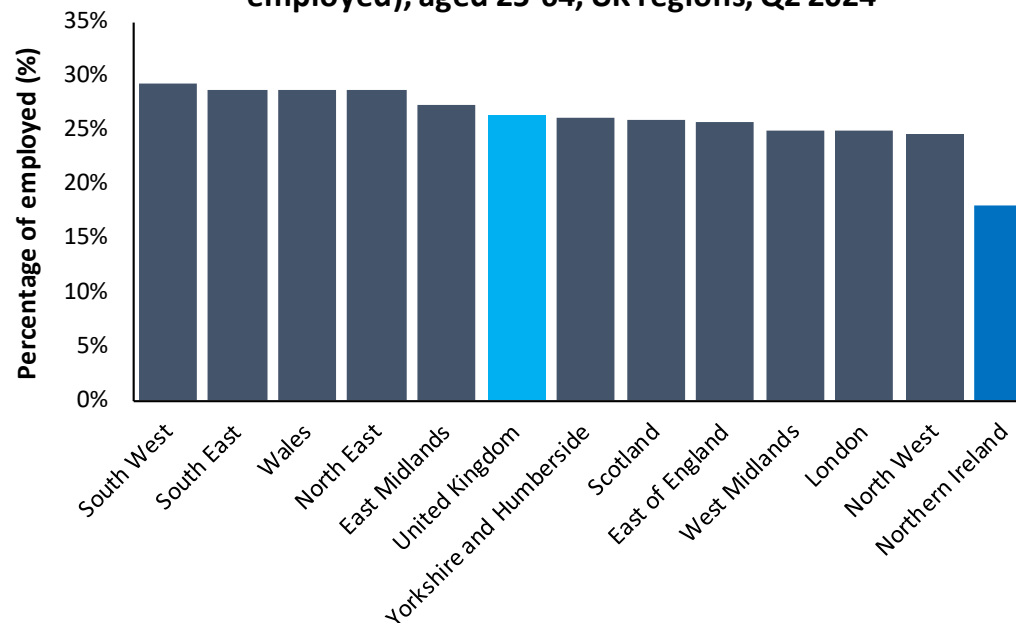


Source: ONS, Labour Force Survey

Note: Data based on a 4-quarter rolling average

Note: Date refers to job related training or education in the last 3 months

Employed receiving job related training or education (% of employed), aged 25-64, UK regions, Q2 2024



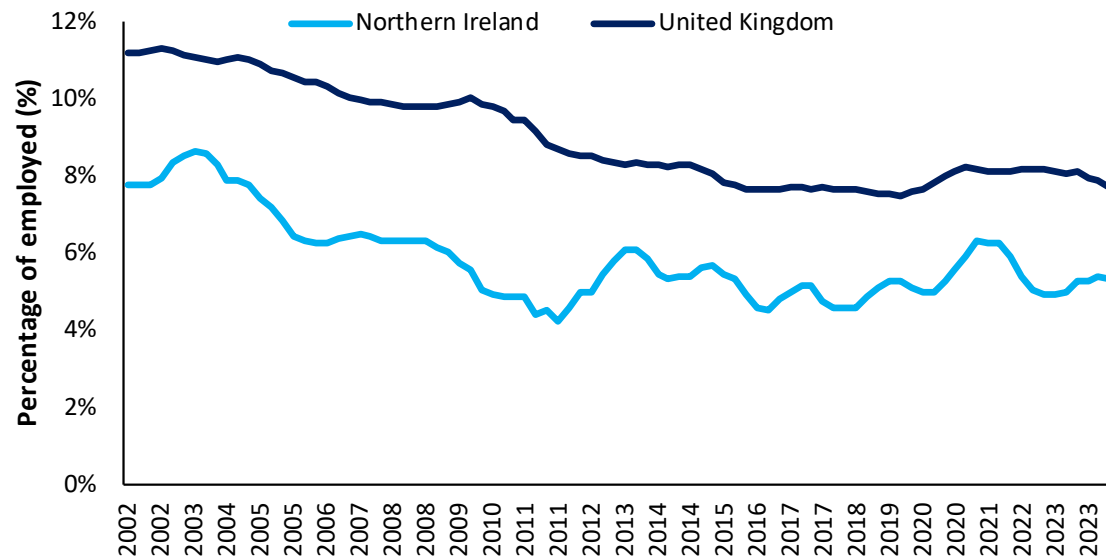
Source: ONS, Labour Force Survey

Note: Data based on a 4-quarter rolling average

Note: Date refers to job related training or education in the last 3 months

# Working towards qualification low relative to other parts of the UK

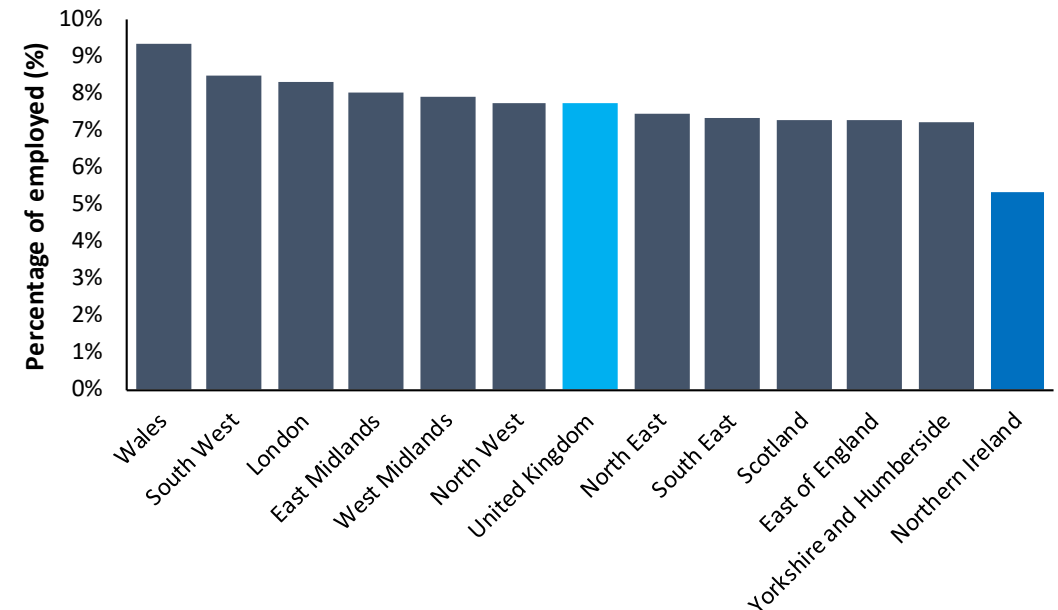
Working towards qualification and/or enrolled in an  
education course (% of employed), aged 25-64, NI & UK,  
2002-2024



Source: ONS, Labour Force Survey

Note: Data based on a 4-quarter rolling average

Working towards qualification and/or enrolled in an  
education course (% of employed), aged 25-64, UK regions,  
Q2 2024

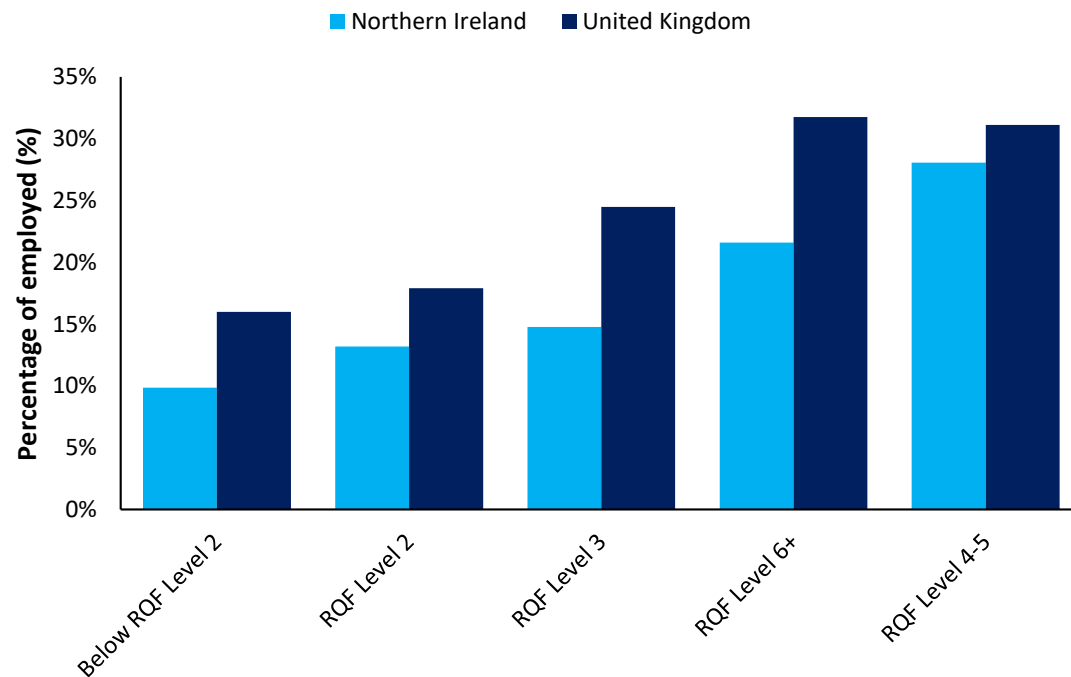


Source: ONS, Labour Force Survey

Note: Data based on a 4-quarter rolling average

# Training/adult learning prospects increase with higher qualifications

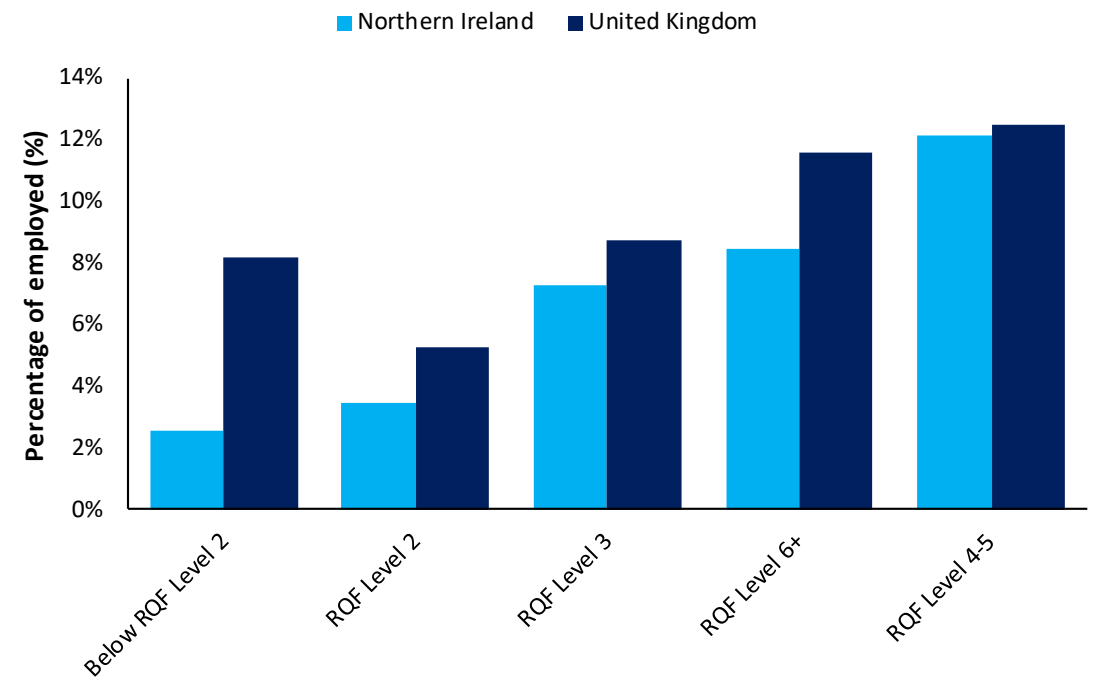
Employed receiving job related training or education (% of employed) by qualification (RQF), aged 25-64, NI & UK, Q2 2024



Source: ONS, Labour Force Survey

Note: Data based on a 4-quarter rolling average

Working towards qualification and/or enrolled in a course (% of employed) by qualification (RQF), aged 25-64, NI & UK, Q2 2024



Source: ONS, Labour Force Survey

Note: Data based on a 4-quarter rolling average

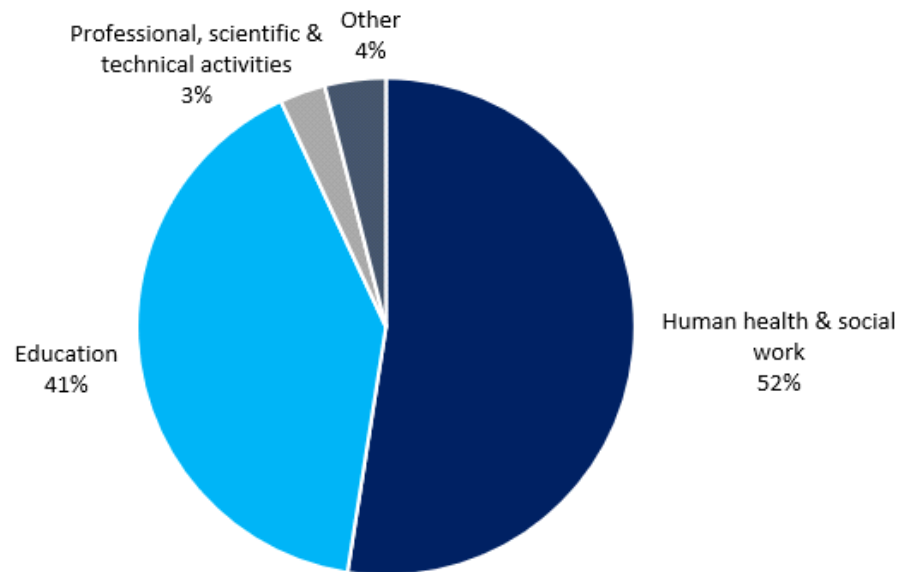




**Where do NI HEI graduates work? (15 months after graduation)**

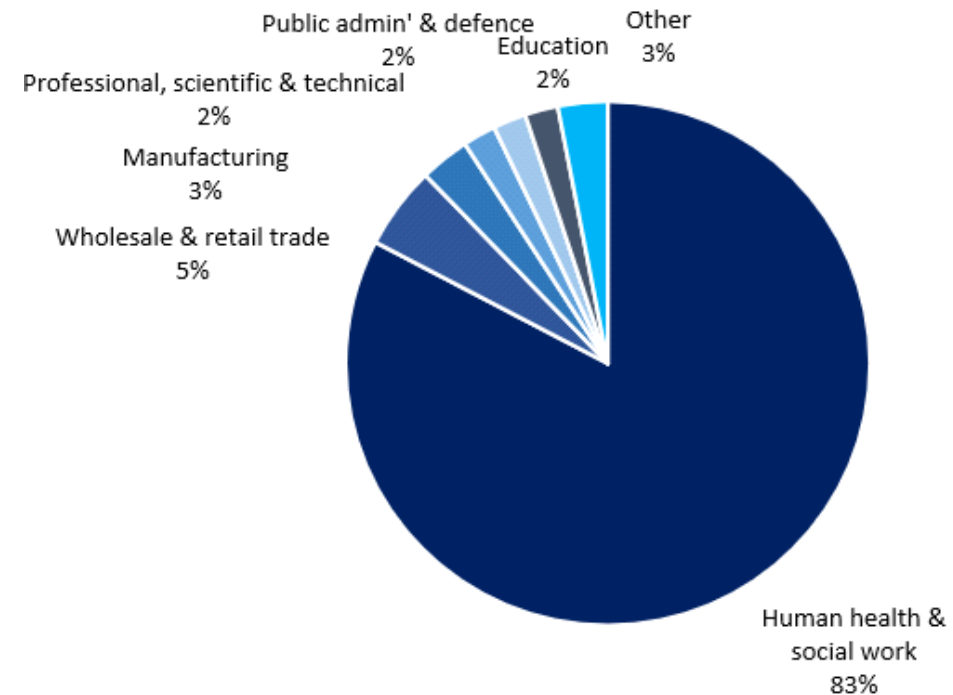
# Where do NI HEI graduates work? (RQF level 6+) (1)

Medicine & dentistry (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



Medicine and dentistry NI HEI qualifiers  
(2021/22) = 645

Subjects allied to medicine (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



Subjects aligned to medicine NI HEI  
qualifiers (2021/22) = 3,745

**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Manufacturing, Accommodation & Food Service Activities, Administrative & Support Service Activities, Public Administration & Defence.

**Note:** Figures may not sum due to rounding.

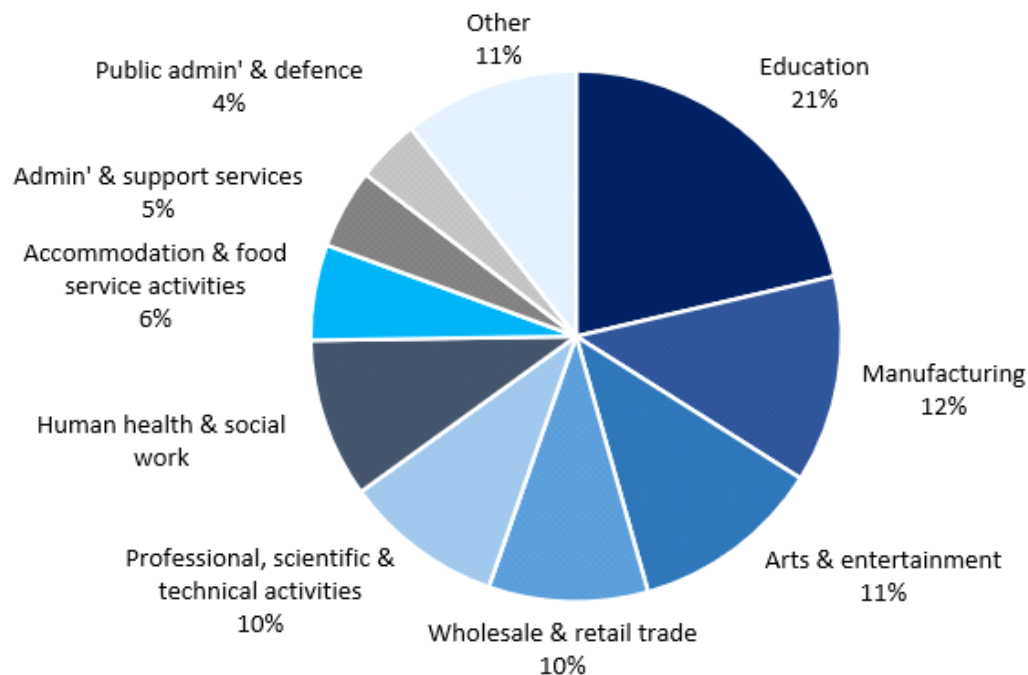
**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Accommodation & Food Service Activities, Administrative & Support Service Activities and Other Service Activities.

**Note:** Figures may not sum due to rounding.

# Where do NI HEI graduates work? (RQF level 6+) (2)

Biological & sport sciences (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



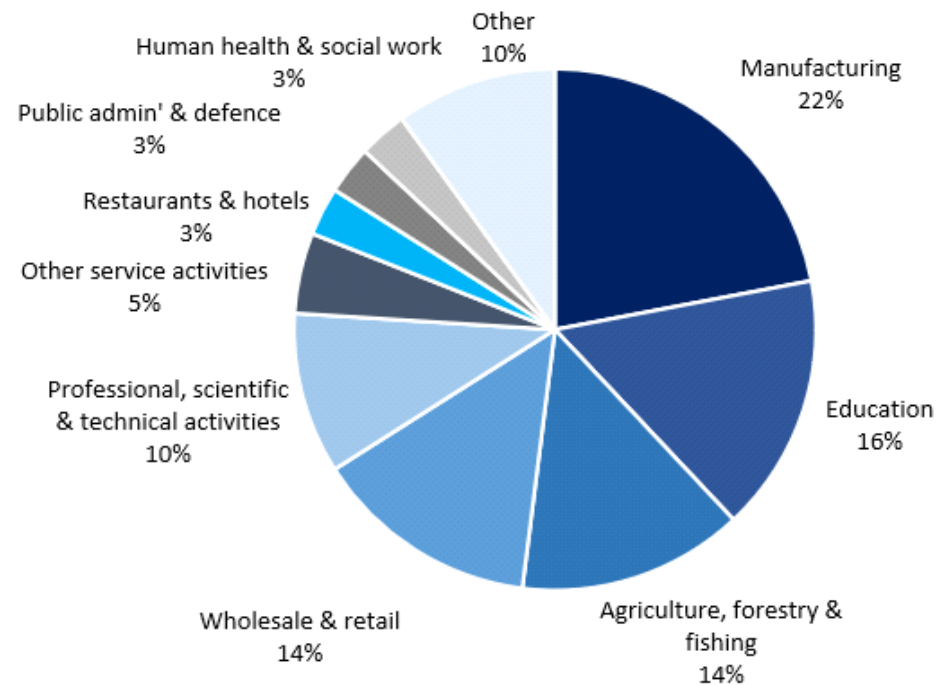
Biological and sport science NI HEI  
qualifiers (2021/22) = 605

Source: Graduate Outcomes, HESA

Note: Other includes; Construction, Information & Communication, Financial & Insurance Activities, Agriculture, Forestry & Fishing, Electricity & Gas, Water Supply & Waste, Transport & Storage and Over Service Activities.

Note: Figures may not sum due to rounding.

Agriculture, food & related studies (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



Agriculture, food and related studies NI  
HEI qualifiers (2021/22) = 160

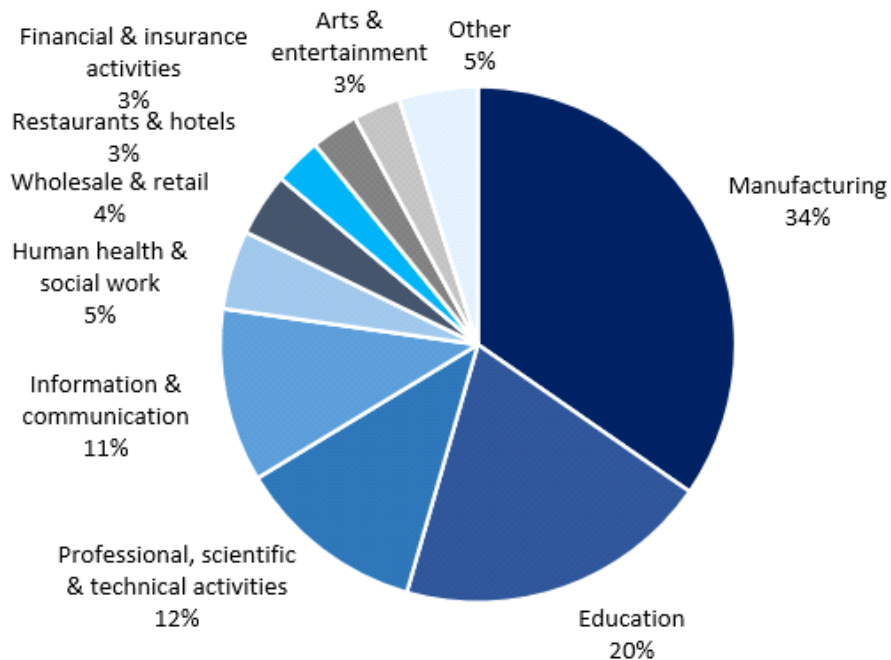
Source: Graduate Outcomes, HESA

Note: Other includes; Electricity & Gas, Transport & Storage, Information & Communication, Financial & Insurance Activities and Administrative & Support Service Activities.

Note: Figures may not sum due to rounding.

# Where do NI HEI graduates work? (RQF level 6+) (3)

Physical sciences (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



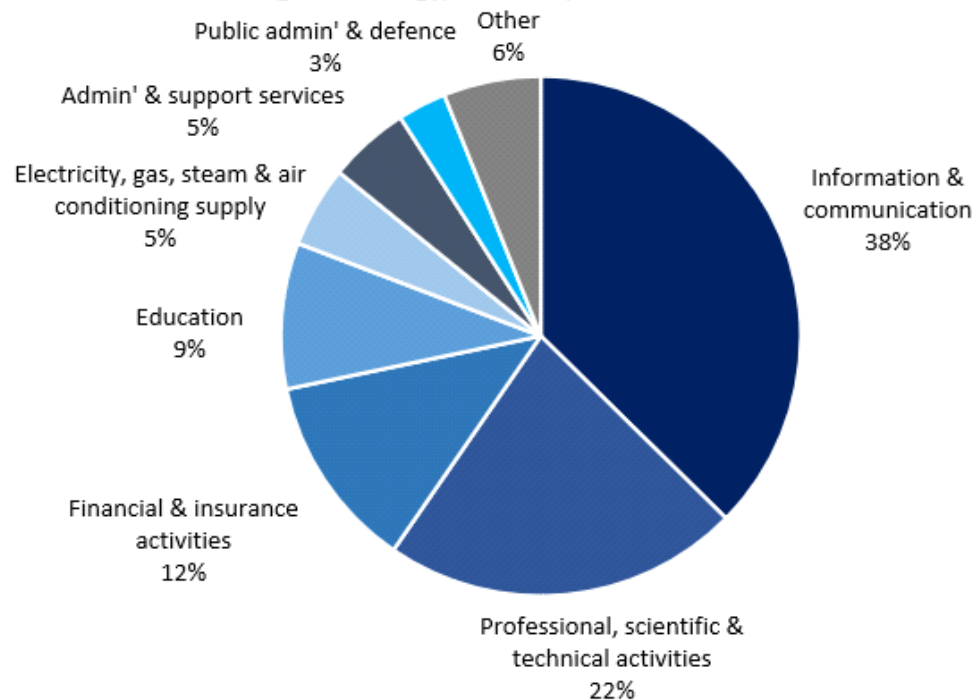
Physical sciences NI HEI qualifiers  
(2021/22) = 280

Source: Graduate Outcomes, HESA

Note: Other includes; Public Administration & Defence, Electricity & Gas, Construction, Transport & Storage.

Note: Figures may not sum due to rounding.

Mathematical sciences (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



Mathematical sciences NI HEI qualifiers  
(2021/22) = 175

Source: Graduate Outcomes, HESA

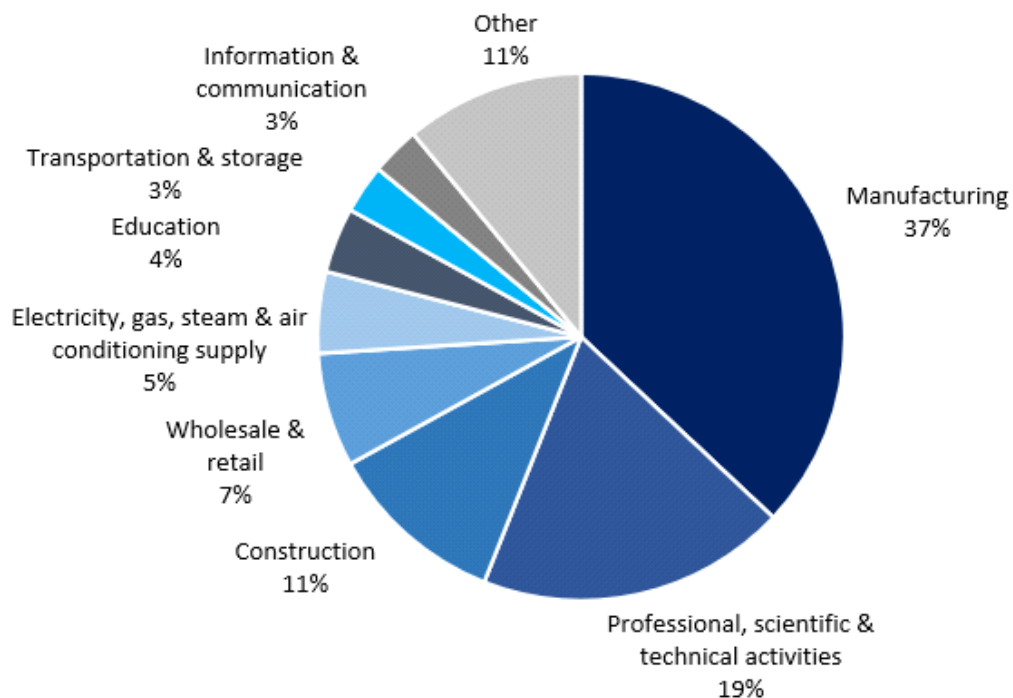
Note: Other includes; Wholesale & Retail, Arts, Entertainment & Recreation, Construction and Accommodation & Food Service Activities.

Note: Figures may not sum due to rounding.



# Where do NI HEI graduates work? (RQF level 6+) (4)

**Engineering & technology (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22**



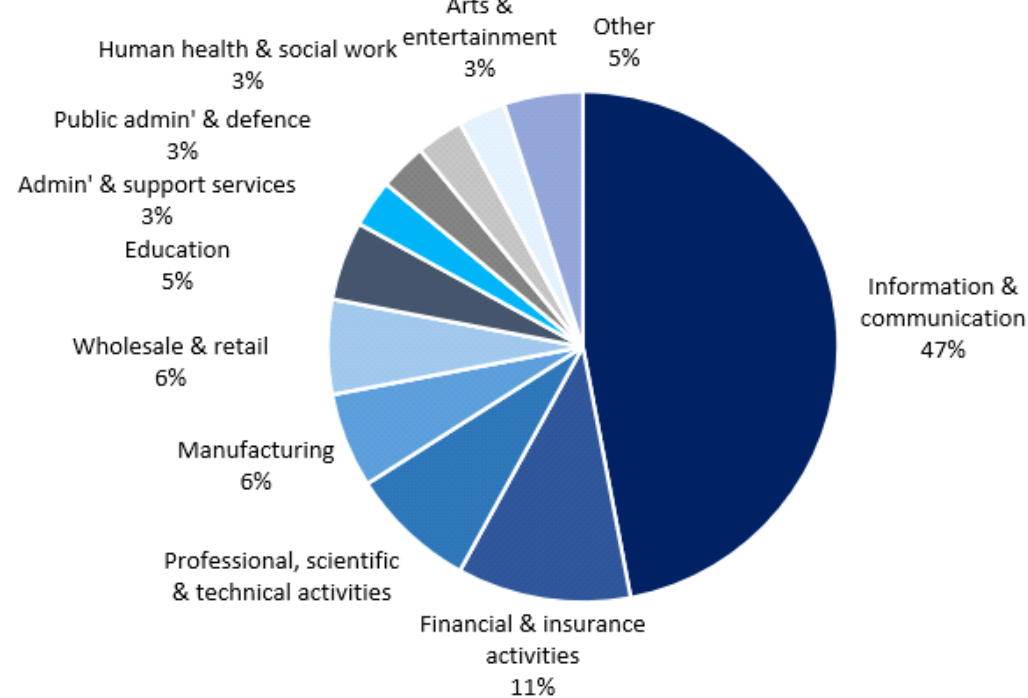
Engineering and technology NI HEI  
qualifiers (2021/22) = 1,140

**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Public Administration & Defence, Human Health & Social Work Activities, Agriculture, Forestry & Fishing, Mining & Quarrying, Water Supply and Waste, Accommodation & Food Service Activities, Financial & Insurance Activities, Administrative & Support Service Activities, and Arts, Entertainment & Recreation.

**Note:** Figures may not sum due to rounding.

**Computing (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22**



Computing NI HEI qualifiers (2021/22)  
= 1,540

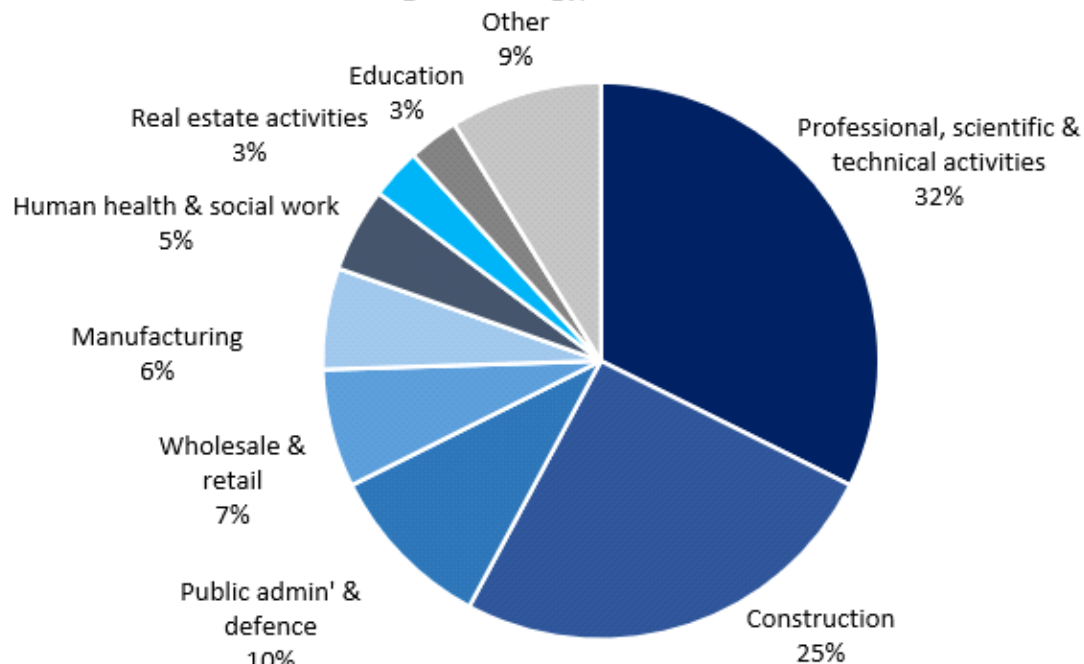
**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Accommodation & Food Service Activities, Electricity & Gas, Construction and Other Service Activities.

**Note:** Figures may not sum due to rounding.

# Where do NI HEI graduates work? (RQF level 6+) (5)

**Architecture, building & planning (RQF level 6+) by sector (15 months after graduating), NI HEIs 2021/22**



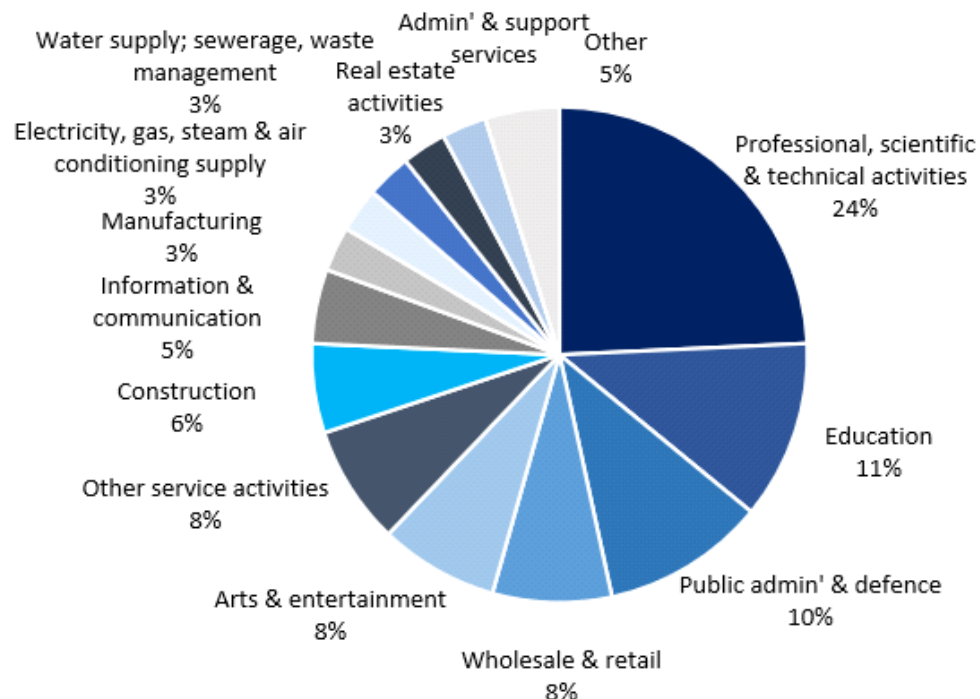
Architecture, building and planning NI  
HEI qualifiers (2021/22) = 570

**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Transport & Storage, Agriculture, Forestry & Fishing, Electricity & Gas, Accommodation & Food Service Activities, Information & Communication, Financial & Insurance Activities, Administrative & Support Service Activities and Arts, Entertainment & Recreation.

**Note:** Figures may not sum due to rounding.

**Natural sciences (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22**



Natural sciences NI HEI qualifiers  
(2021/22) = 255

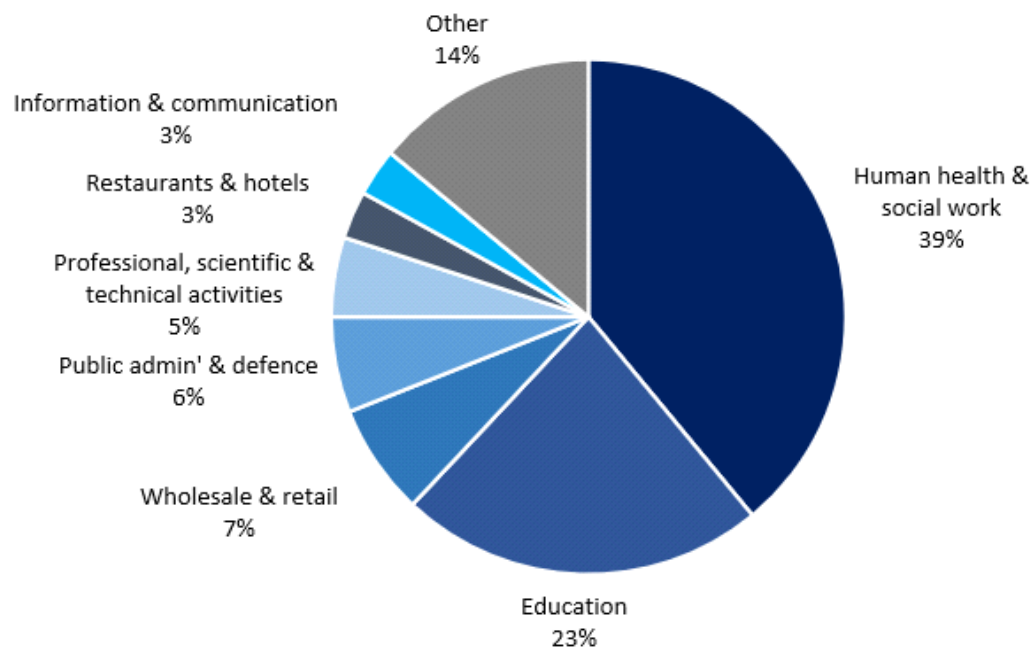
**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Transport & Storage, Financial & Insurance Activities, Mining & Quarrying.

**Note:** Figures may not sum due to rounding.

# Where do NI HEI graduates work? (RQF level 6+) (6)

Psychology (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



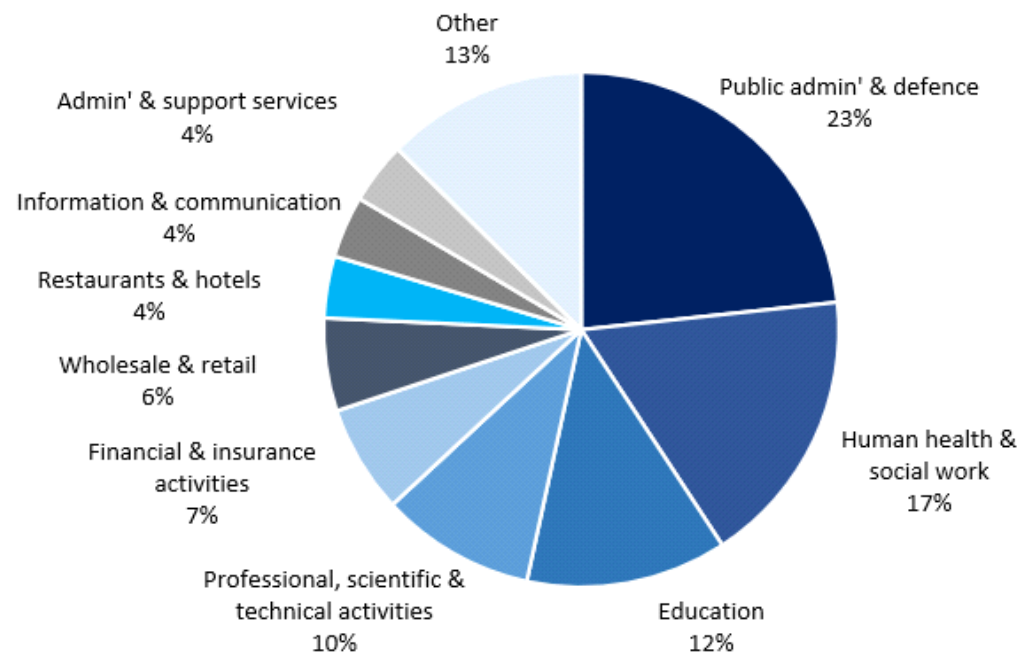
Psychology NI HEI qualifiers (2021/22)  
= 655

**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Manufacturing, Construction, Financial & Insurance Activities, Administrative & Support Service Activities, Other Service Activities, Transport & Storage, Real Estate Activities, Arts, Entertainment & Recreation and Activities of Households as Employers.

**Note:** Figures may not sum due to rounding.

Social sciences (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



Social sciences NI HEI qualifiers  
(2021/22) = 1,740

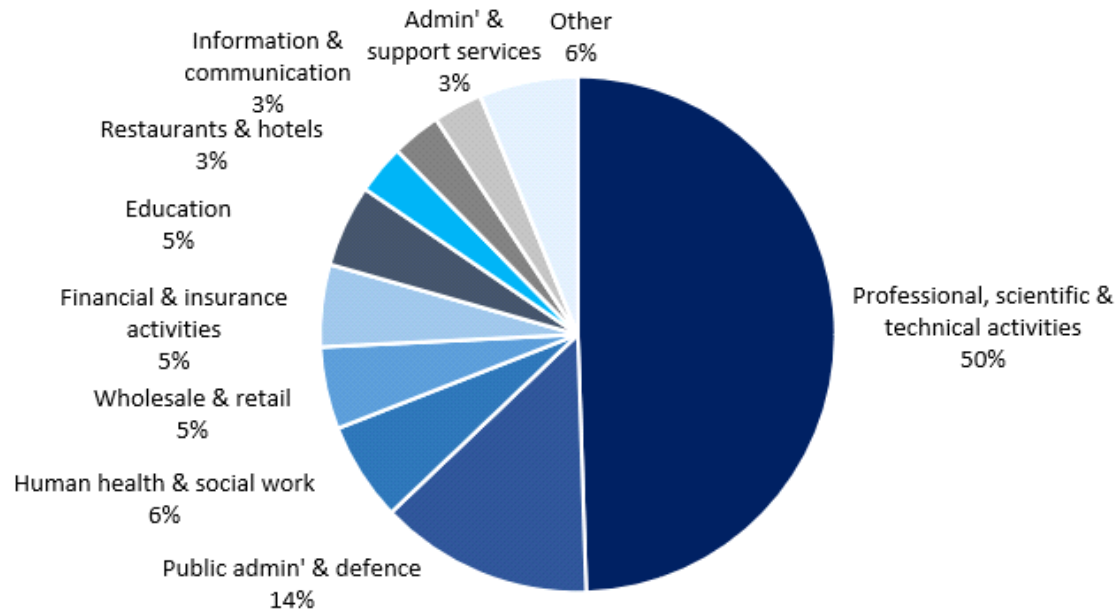
**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Manufacturing, Arts, Entertainment & Recreation, Other Service Activities, Construction, Transport & Storage and Real Estate Activities.

**Note:** Figures may not sum due to rounding.

# Where do NI HEI graduates work? (RQF level 6+) (7)

**Law (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22**



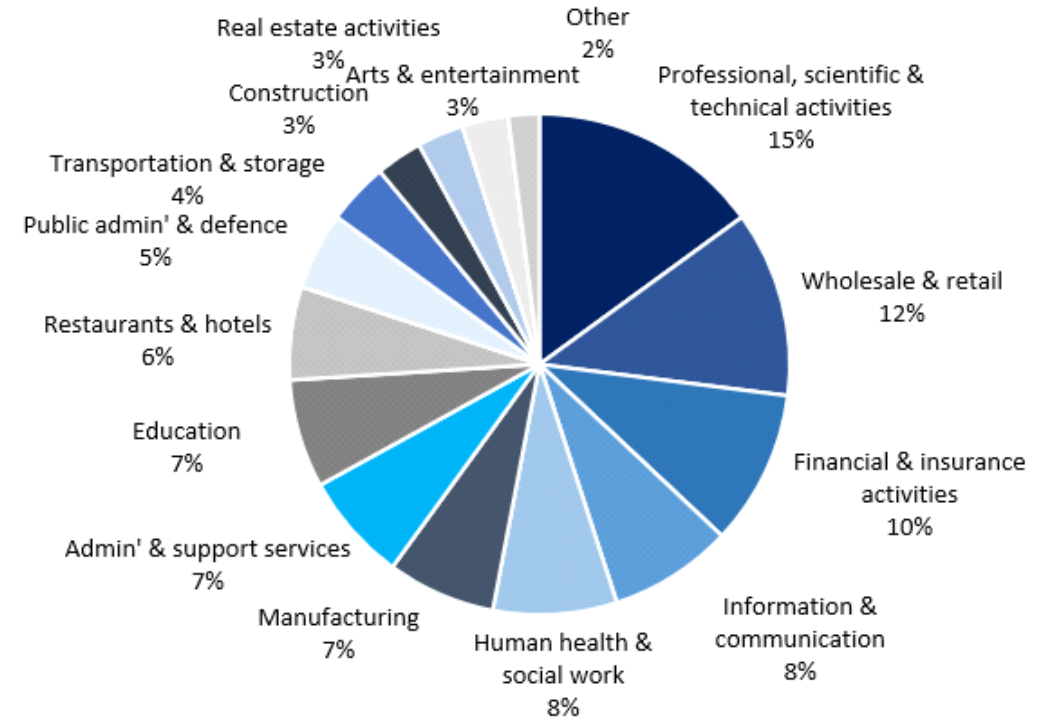
Law NI HEI qualifiers (2021/22) = 925

**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Manufacturing, Construction, Transport & Storage, Real Estate Activities, Arts, Entertainment & Recreation and Other Service Activities.

**Note:** Figures may not sum due to rounding.

**Business & management (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22**



Business and management NI HEI  
qualifiers (2021/22) = 4,120

**Source:** Graduate Outcomes, HESA

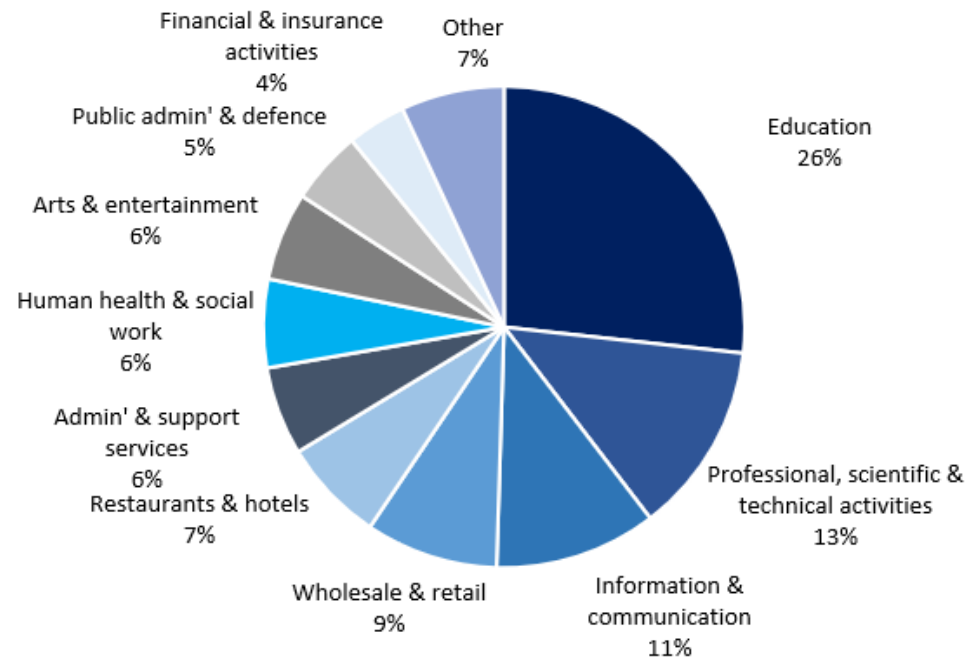
**Note:** Other includes; Electricity & Gas and Other Service Activities.

**Note:** Figures may not sum due to rounding.



# Where do NI HEI graduates work? (RQF level 6+) (8)

Language & area studies (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



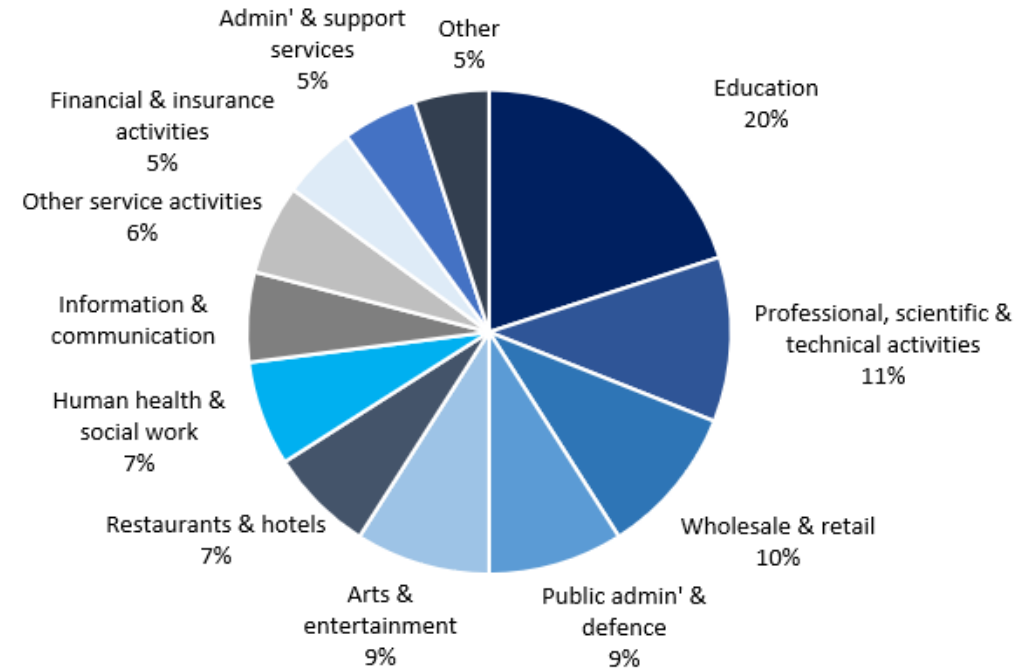
Language and area studies NI HEI  
qualifiers (2021/22) = 485

**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Manufacturing, Other Service Activities, Construction, Transport & Storage and Real Estate Activities.

**Note:** Figures may not sum due to rounding.

Historical, philosophical & religious studies (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



Historical, philosophical and religious  
studies NI HEI qualifiers (2021/22) = 295

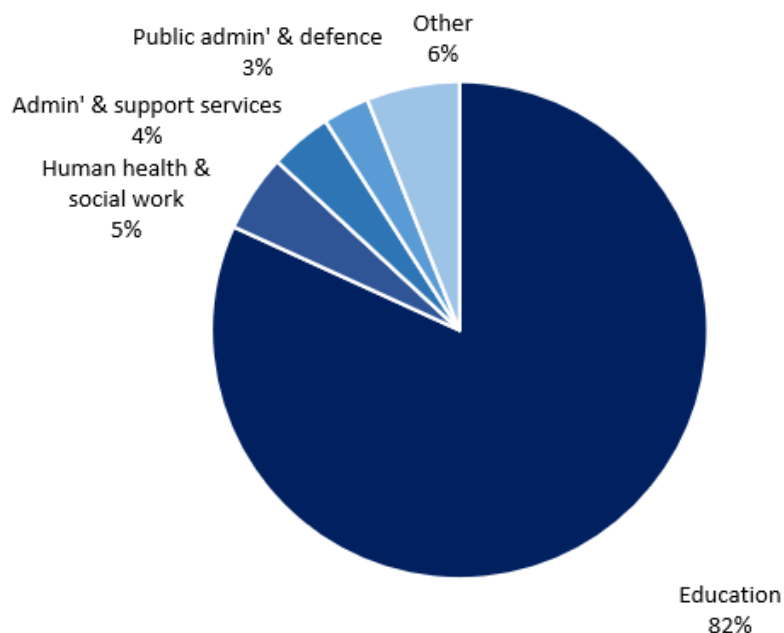
**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Manufacturing, Construction, Transport & Storage and Real Estate Activities.

**Note:** Figures may not sum due to rounding.

# Where do NI HEI graduates work? (RQF level 6+) (9)

Education & teaching (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



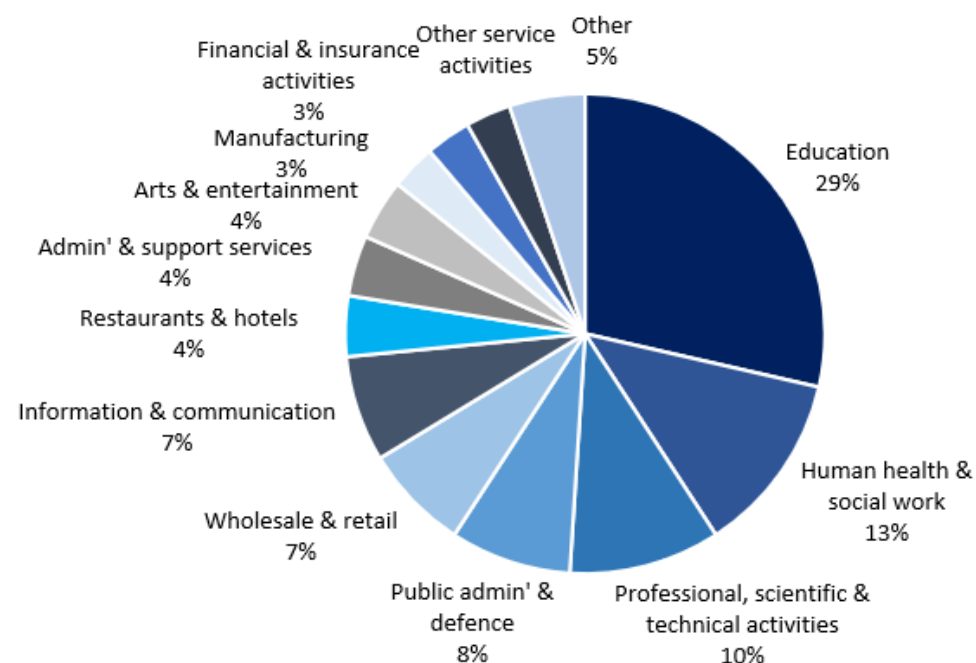
Education and training NI HEI qualifiers  
(2021/22) = 1,275

**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Wholesale & Retail, Accommodation & Food Service Activities, Information & Communication, Professional, Scientific & Technical Activities, Arts, Entertainment & Recreation and Other Service Activities.

**Note:** Figures may not sum due to rounding.

Combined & general studies (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22



Combined and general studies NI HEI  
qualifiers (2021/22) = 240

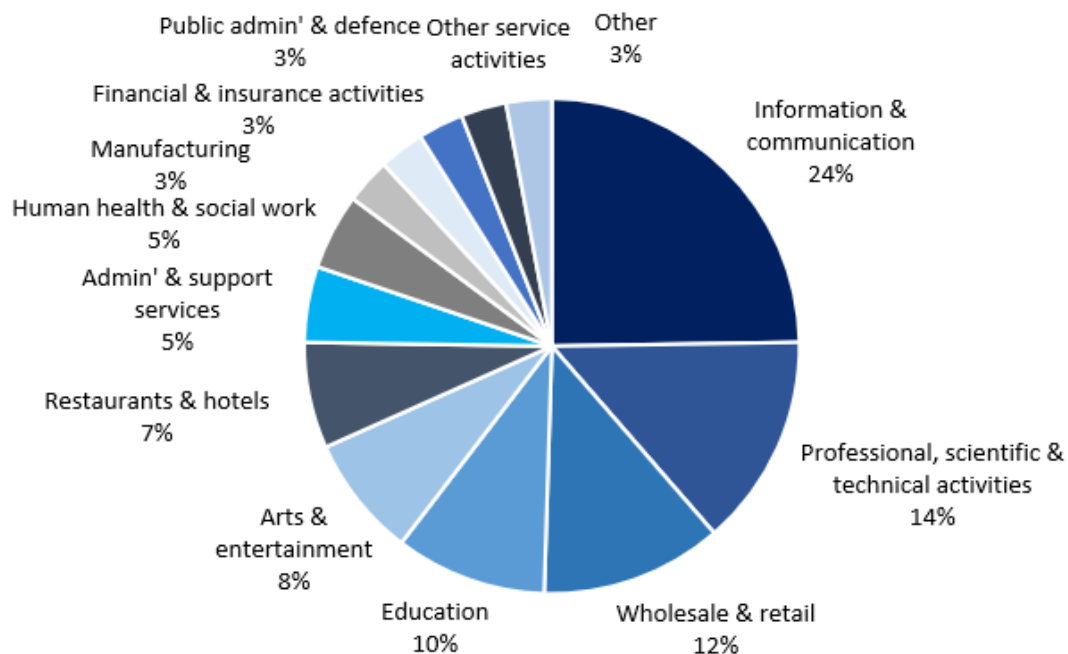
**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Transport & storage, Electricity & Gas, Construction and Real Estate Activities.

**Note:** Figures may not sum due to rounding.

# Where do NI HEI graduates work? (RQF level 6+) (10)

**Media, journalism & communications (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22**



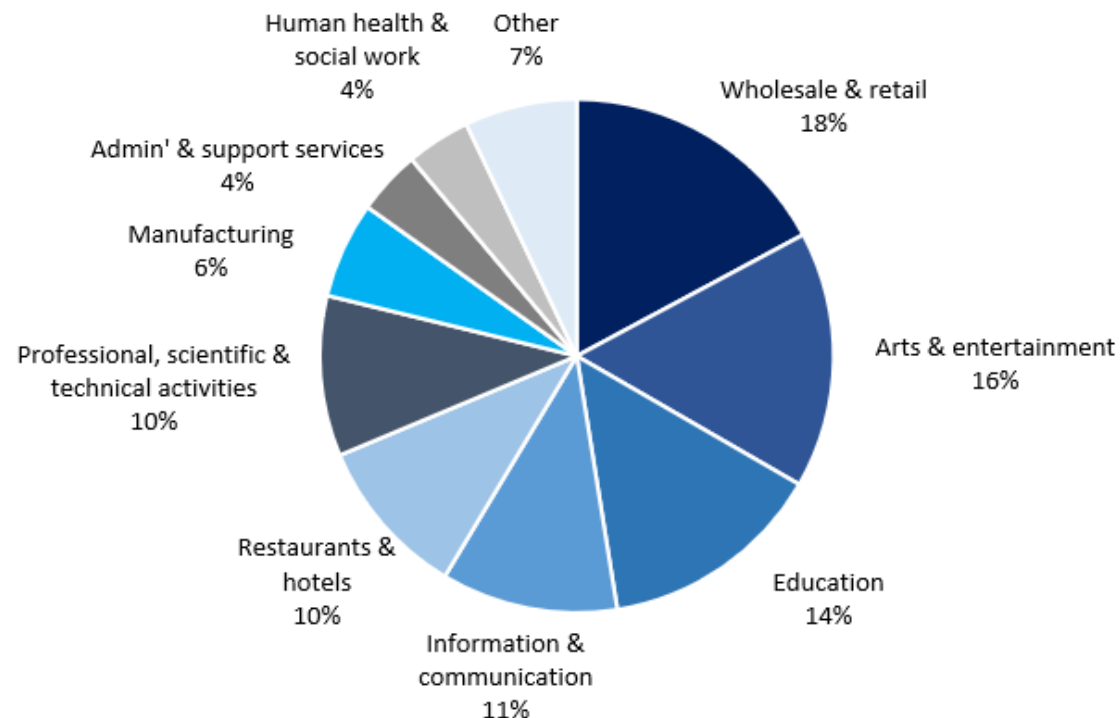
Media, journalism and communications  
NI HEI qualifiers (2021/22) = 335

**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Construction, Transport & Storage and Real Estate Activities.

**Note:** Figures may not sum due to rounding.

**Design, & creative & performing arts (RQF level 6+) by sector (15 months after graduating), NI HEIs, 2021/22**



Design, creative and performing arts NI  
HEI qualifiers (2021/22) = 695

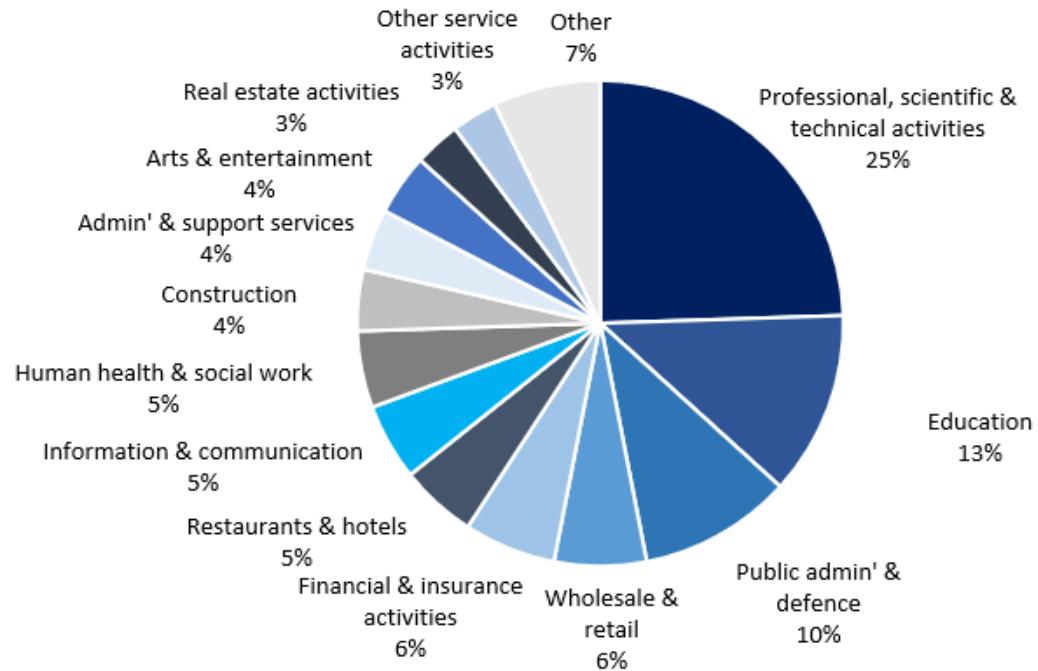
**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Other Service Activities, Construction, Transport & Storage, Financial & Insurance Activities, Real Estate Activities and Public Administration & Defence.

**Note:** Figures may not sum due to rounding.

# Where do NI HEI graduates work? (RQF level 6+) (11)

Geography, earth & environmental studies (RQF level 6+) by sector  
(15 months after graduating), NI HEIs, 2021/22



Geography, earth and environmental studies NI HEI qualifiers (2021/22) = 25

**Source:** Graduate Outcomes, HESA

**Note:** Other includes; Manufacturing, Electricity & Gas, Transport & Storage, Water Supply & Waste Activities.

**Note:** Figures may not sum due to rounding.







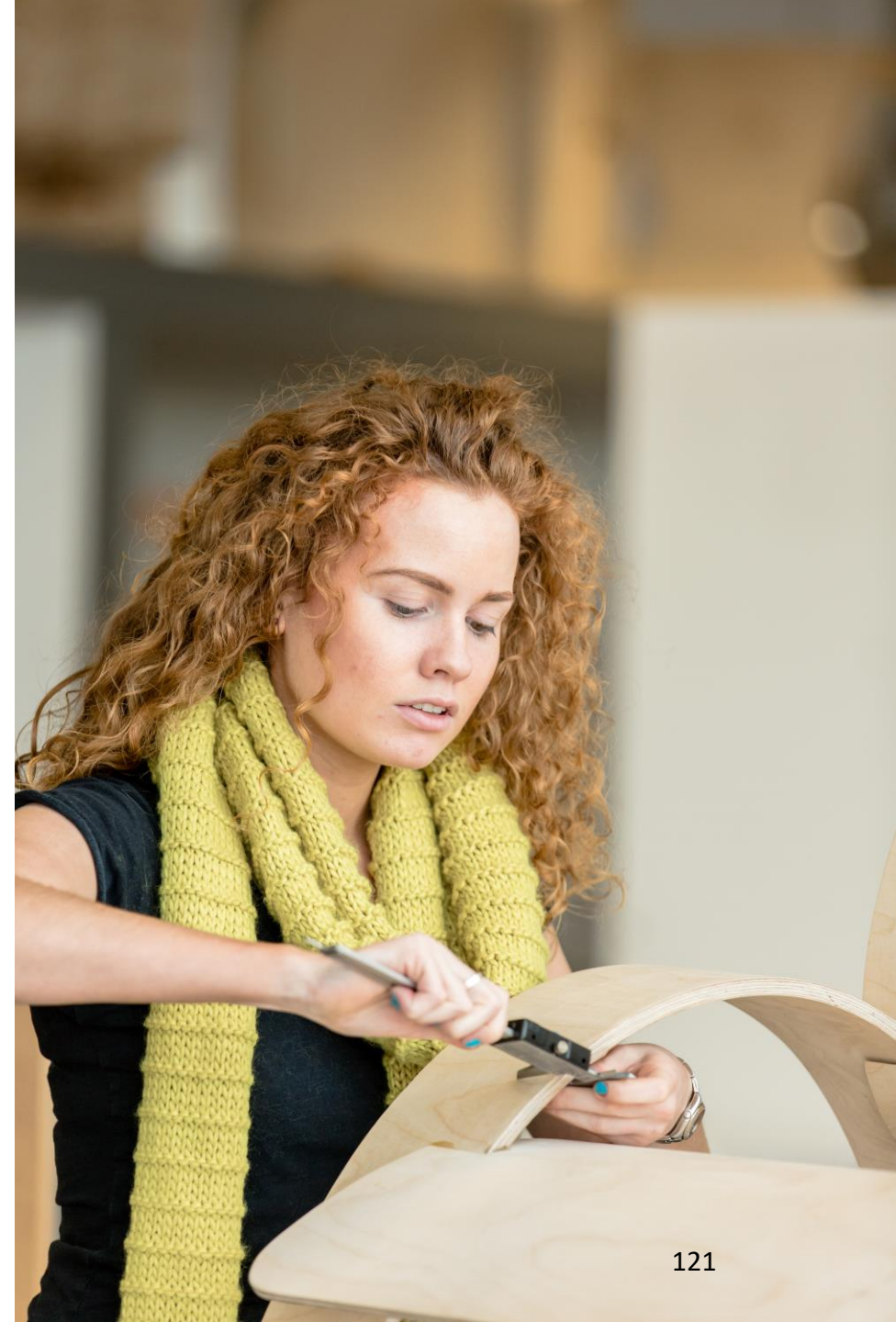
# Work experience & soft skills

# Soft skills complement hard skills

Employers require individuals with a combination of both soft skills (e.g. communication, teamwork, problem solving) and hard skills (e.g. specific job-related abilities/qualifications), this is no exception for graduates.

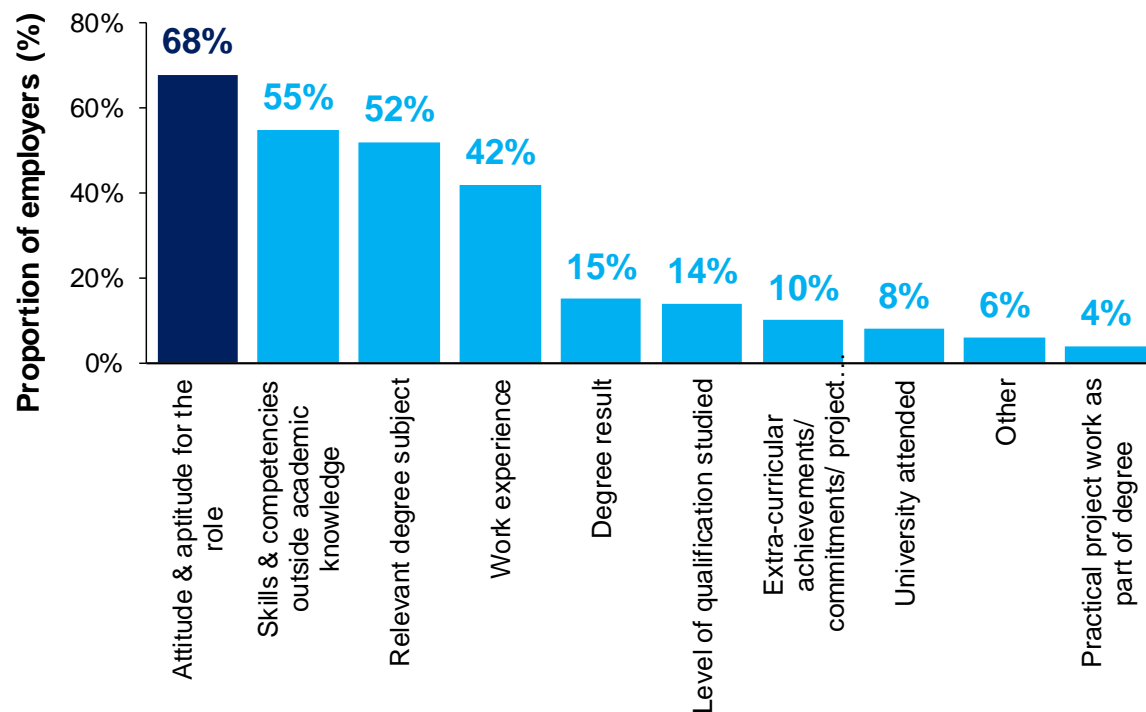
Specifically, soft skills and vocational experience have consistently formed part of the most important graduate assets from an employer perspective, often over and above academic achievements. Therefore, it is important young people are aware of both the importance and need to develop soft skills and competencies, alongside their academic studies.

However, although young people can develop soft skills through extra-curricular activities and workplace based/active learning within an academic setting, it is evident employers highly value perspective employees to have developed soft skills through relevant work experience. Therefore, there is an onus on employers to actively support the provision of such experience for young people right through their educational career.



# Employers look beyond qualifications

**Most important factors in recruiting graduates**  
(% respondents selecting factor in top 3), UK, 2024



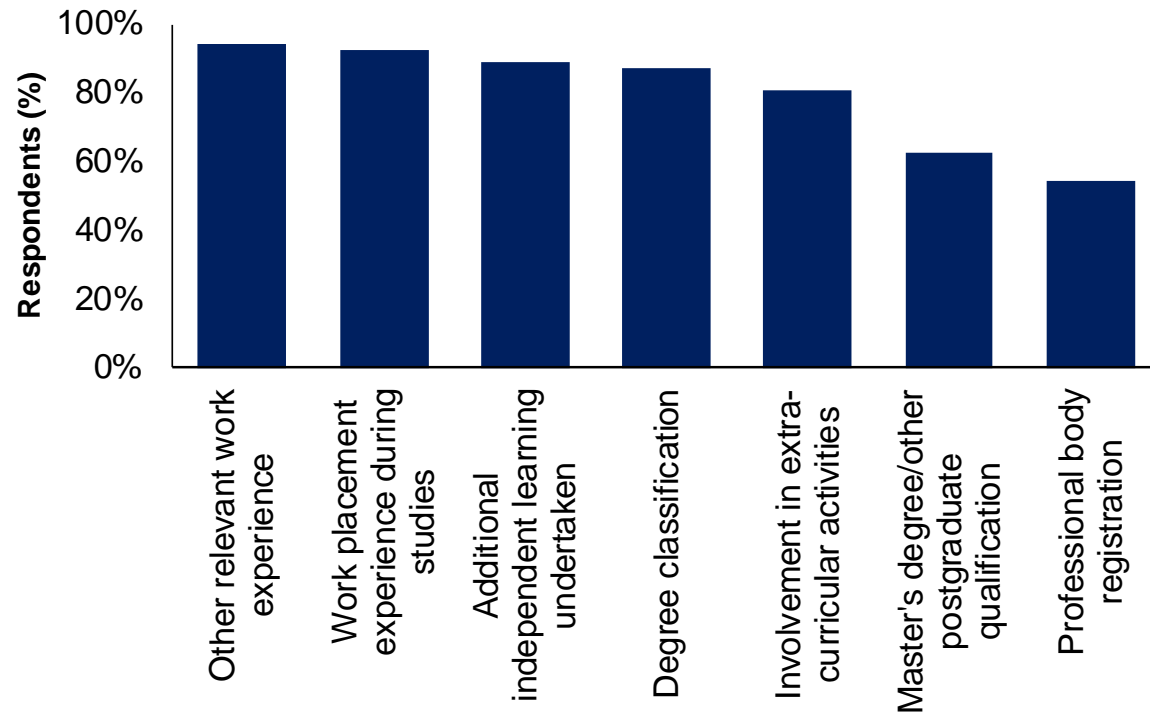
Over three-fifths (68%) of employers considered an individuals' attitude and aptitude for work as one of the most important factors in the graduate recruitment process. That was followed by 55% stating skills & competencies outside of academic knowledge, 52% a relevant degree subject studied and 42% work experience.

Degree results only form part of a much broader recruitment process, as only 15% of employers considered it one of the top three most important factors when recruiting graduates.



# Work experience consistently important in graduate recruitment

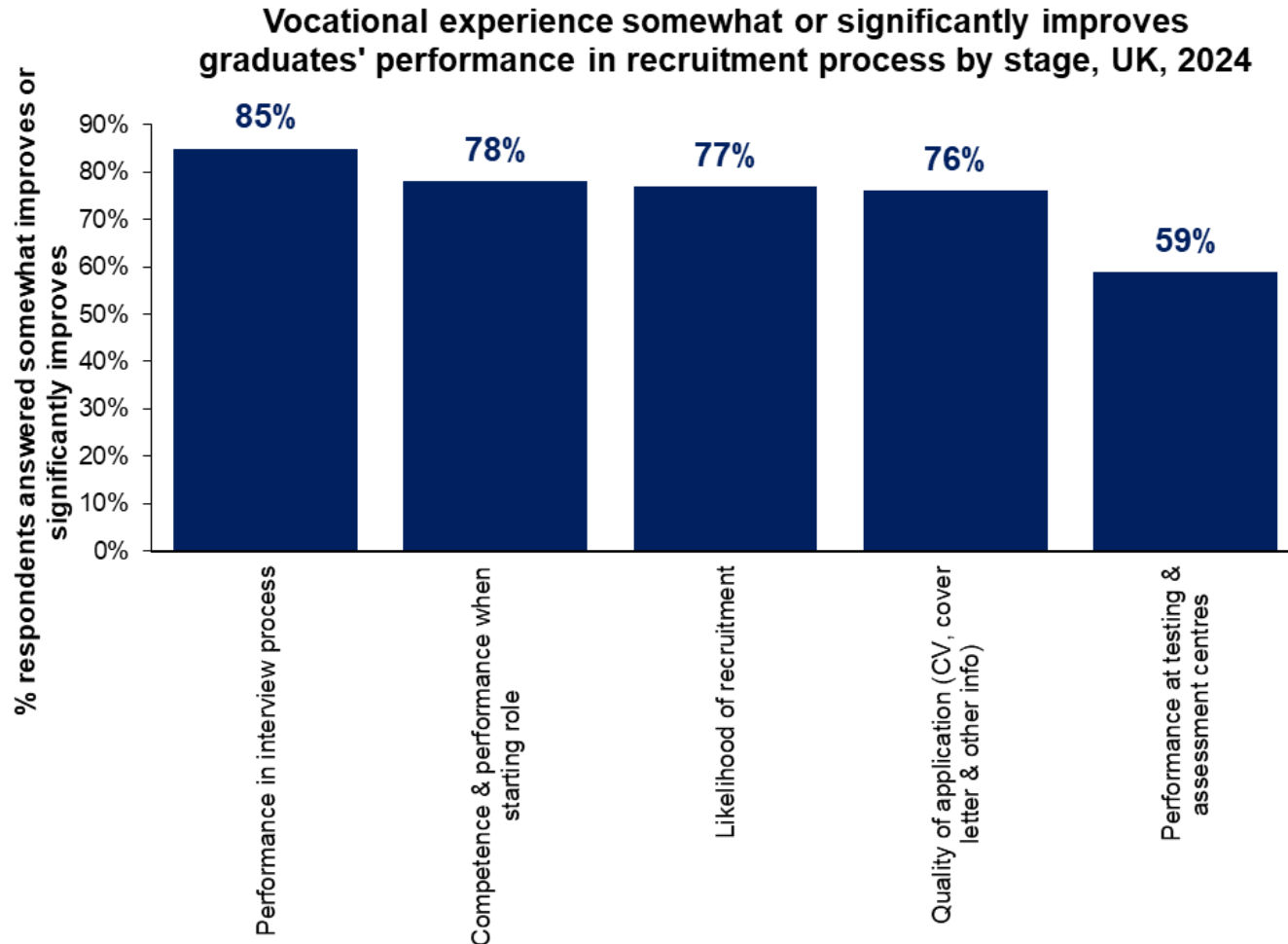
Importance of selection criteria in graduate recruitment, UK, 2022



Source: Graduate Employer Survey, Ulster University



# How vocational experience influences recruitment performance



Graduate employers highlight the value of vocational experience, outlining the impact it can have across different aspects of the recruitment process. For example, over four-fifths (85%) of employers found vocational experience either somewhat or significantly improved graduates' performance in the interview process.

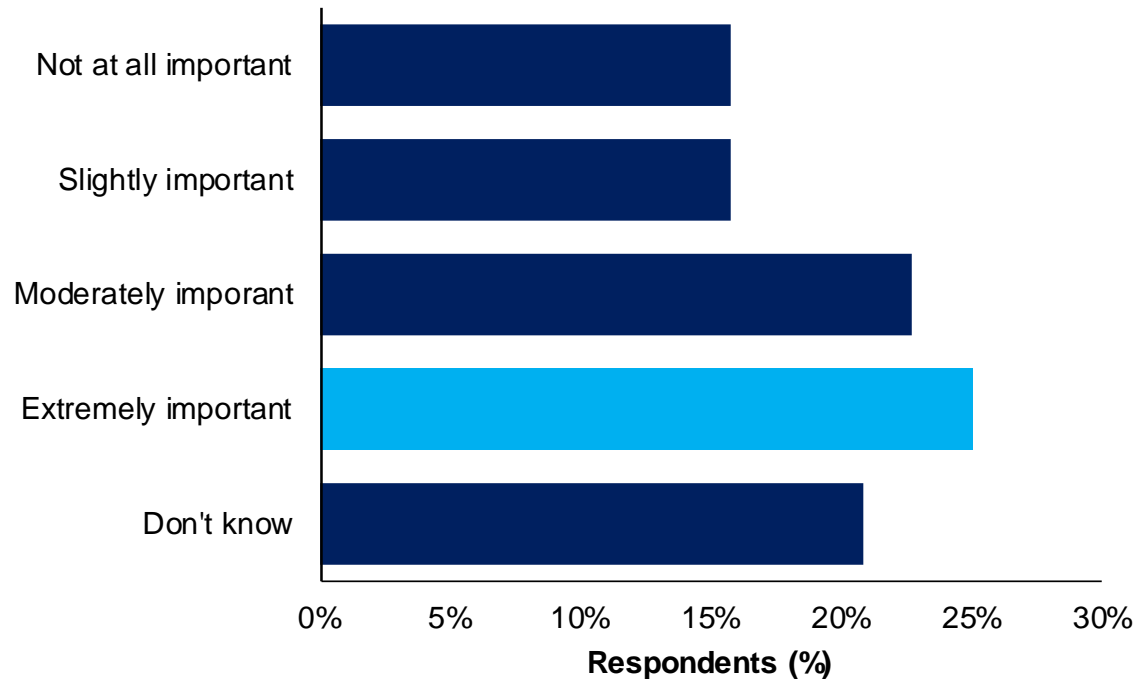
Over three-quarters (78%) found such experience somewhat or significantly improves graduate competence and performance when starting the role.

Overall, graduate employers responded overwhelmingly positive to the influence of vocational experience on the recruitment process.

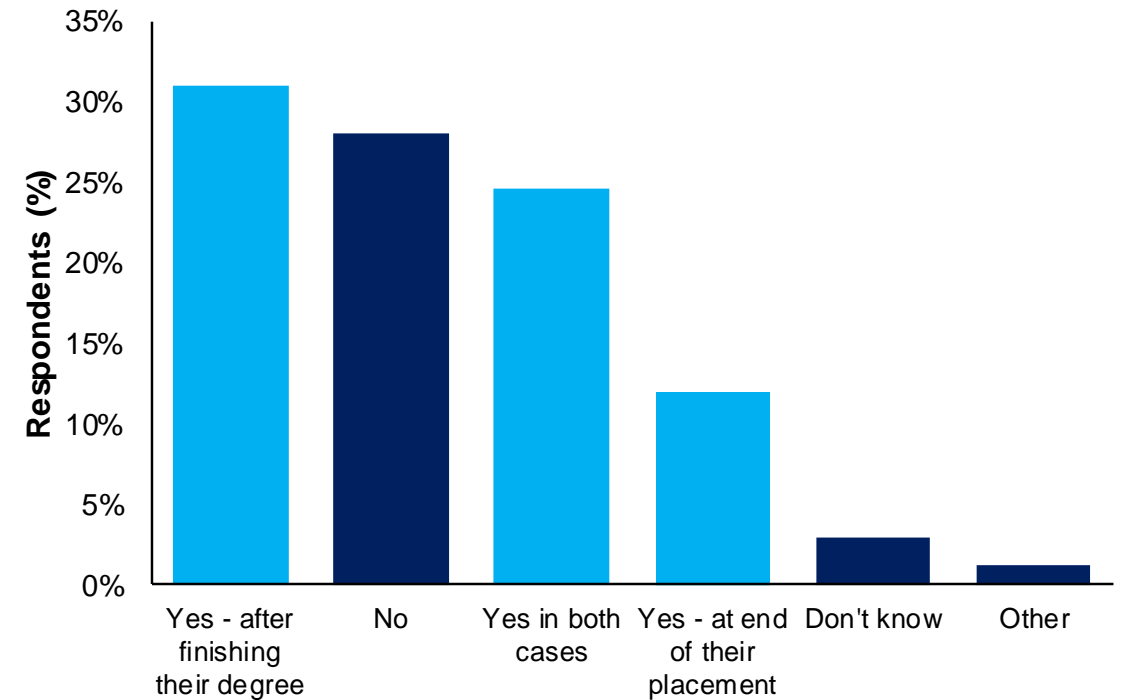


# Vocational/work experience highly important in recruitment

**Importance of Higher-Level Apprenticeships in developing skills and talent, UK, 2022**



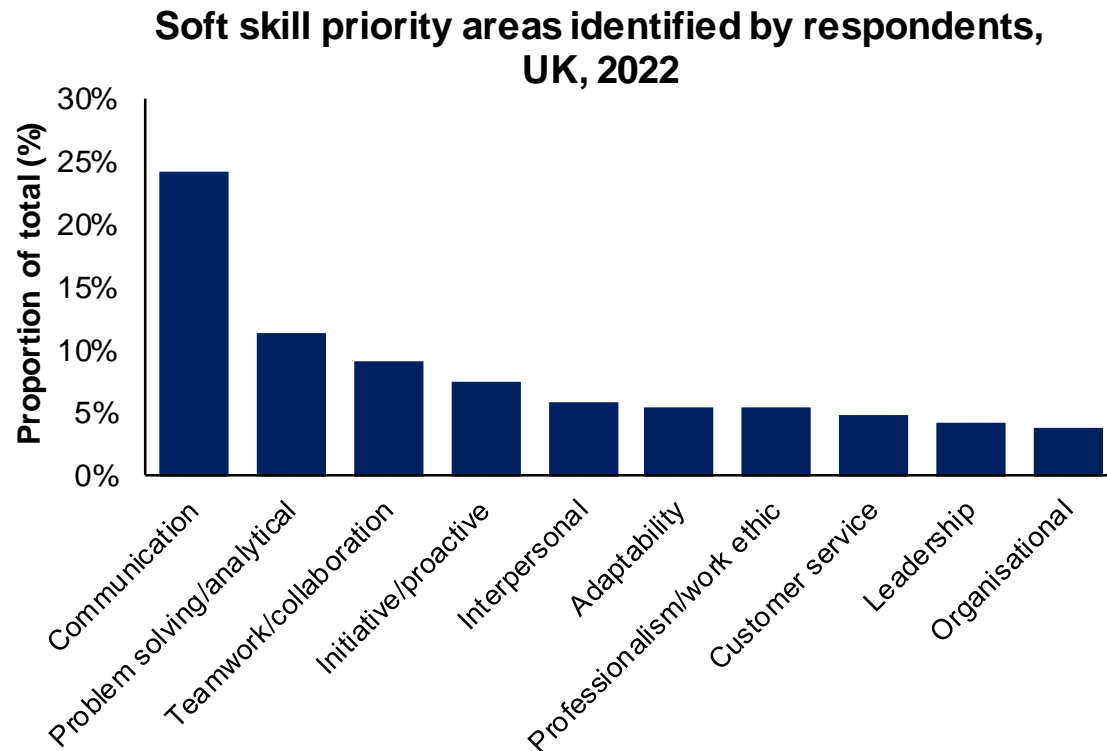
**Have you recruited any placement students into long-term roles?, UK, 2022**



Source: Graduate Employer Survey, Ulster University

Source: Graduate Employer Survey, Ulster University

# Communication listed number one soft skill priority areas among graduate employers

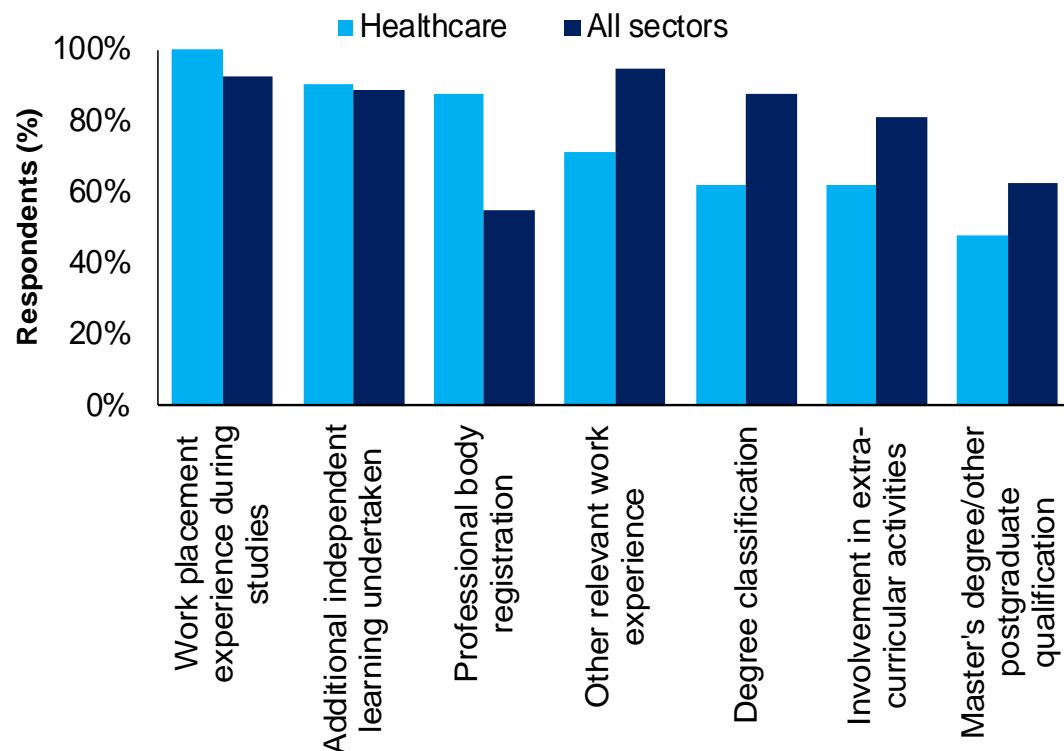


Source: Graduate Employer Survey, Ulster University



# Graduate selection criteria differs across sectors (1)

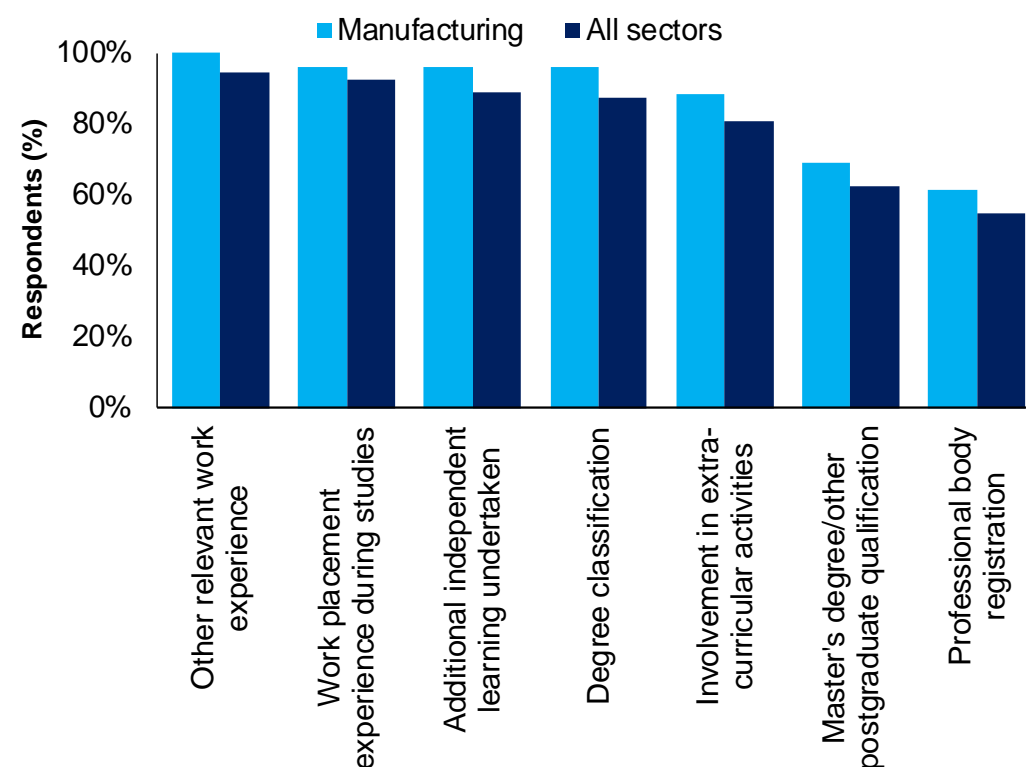
Importance of selection criteria in graduate recruitment, UK, 2022



Source: Graduate Employer Survey, Ulster University

Graduate employers in the healthcare sector outline work placement experience during studies followed by additional independent adult learning undertaken as most important selection criteria.

Importance of selection criteria in graduate recruitment, UK, 2022

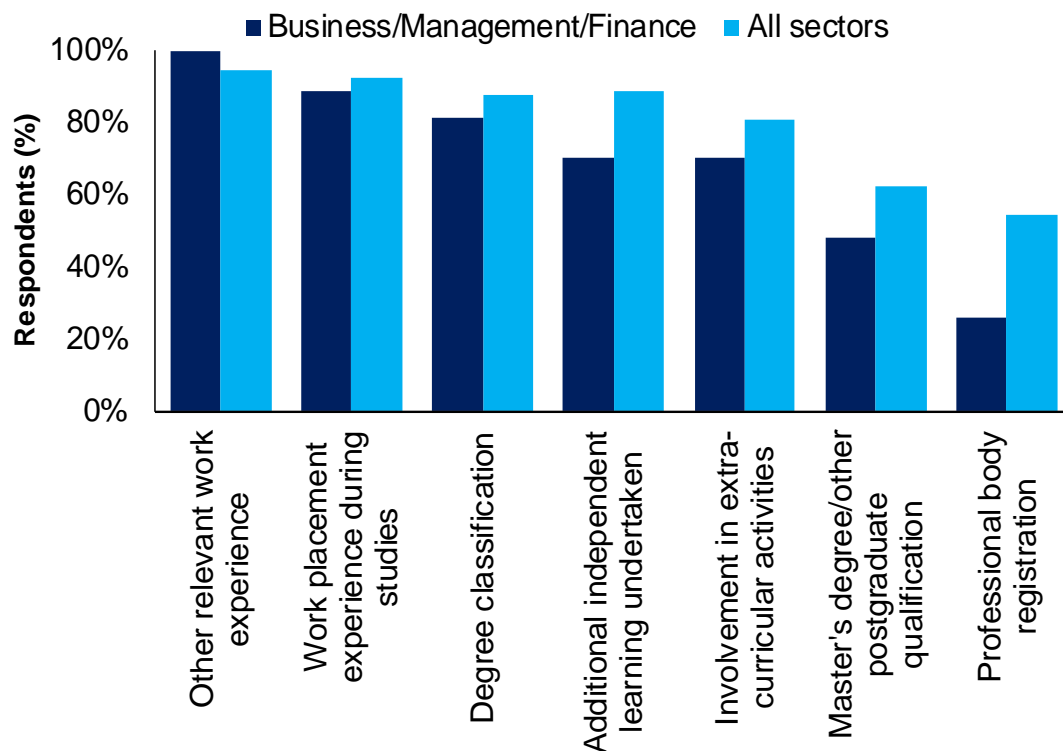


Source: Graduate Employer Survey, Ulster University

Graduate employers in the manufacturing sector outline other relevant work experience and work placement experience during studies as most important selection criteria.

# Graduate selection criteria differs across sectors (2)

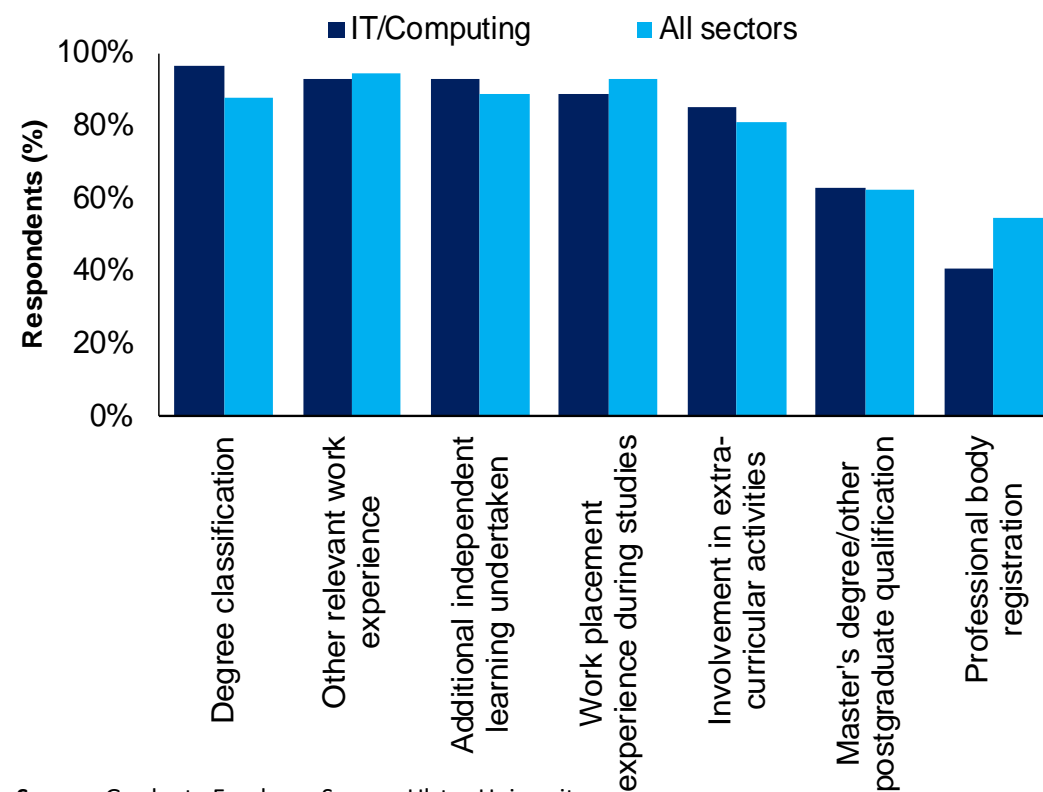
Importance of selection criteria in graduate recruitment, UK, 2022



Source: Graduate Employer Survey, Ulster University

Graduate employers in the business/management/finance sector outline other relevant work experience and work placement experience during studies as most important selection criteria.

Importance of selection criteria in graduate recruitment, UK, 2022



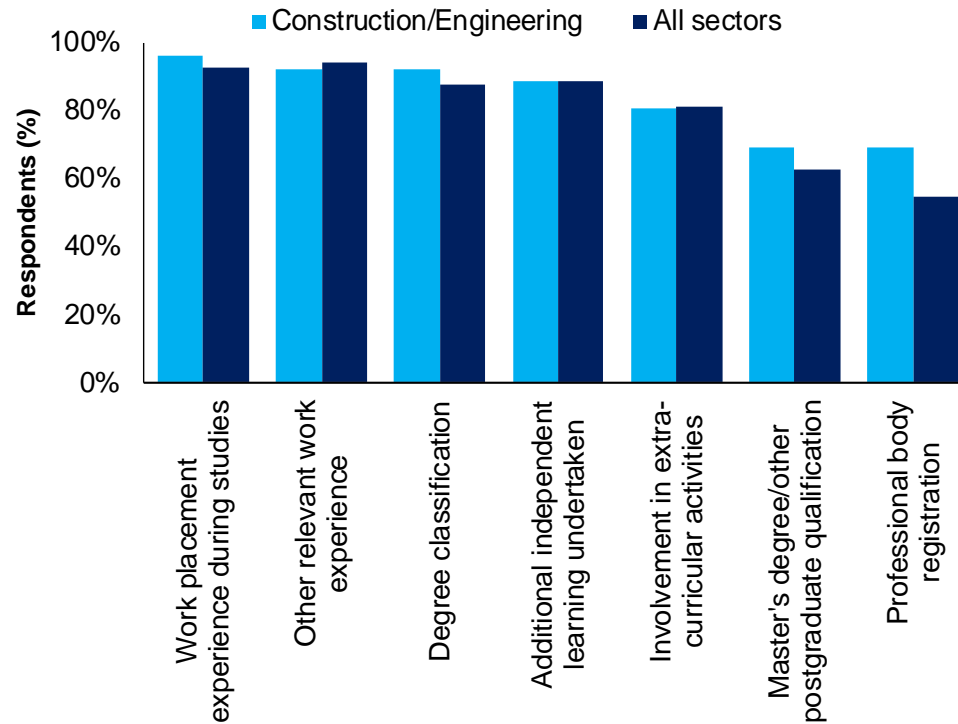
Source: Graduate Employer Survey, Ulster University

Graduate employers in the IT/computing sector outline other relevant work experience and work placement experience during studies as most important selection criteria.



# Graduate selection criteria differs across sectors (3)

Importance of selection criteria in graduate recruitment, UK, 2022



Graduate employers in the construction/engineering sector outline other relevant work experience and work placement experience during studies as most important selection criteria.



# Where could graduates be stronger in recruitment?

**Employers highlighted various core skills and vocational experience** as key areas where graduates could be stronger, specifically:

- Confidence, drive and motivation to push forward with the application process.
- Communication skills, in particular written communication (e.g. writing for a professional context, email etiquette, succinctness of writing)
- Interpersonal skills (i.e. teamwork and ability to listen/integrate with others, problem solving and negotiate collectively)

**Source:** CBI, University Alliance



# Key skills employers want from graduates



Communication skills



Teamwork & collaboration



Problem-solving abilities



Adaptability & flexibility



Emotional intelligence



Digital literacy



Leadership skills



Time management



Analytical thinking



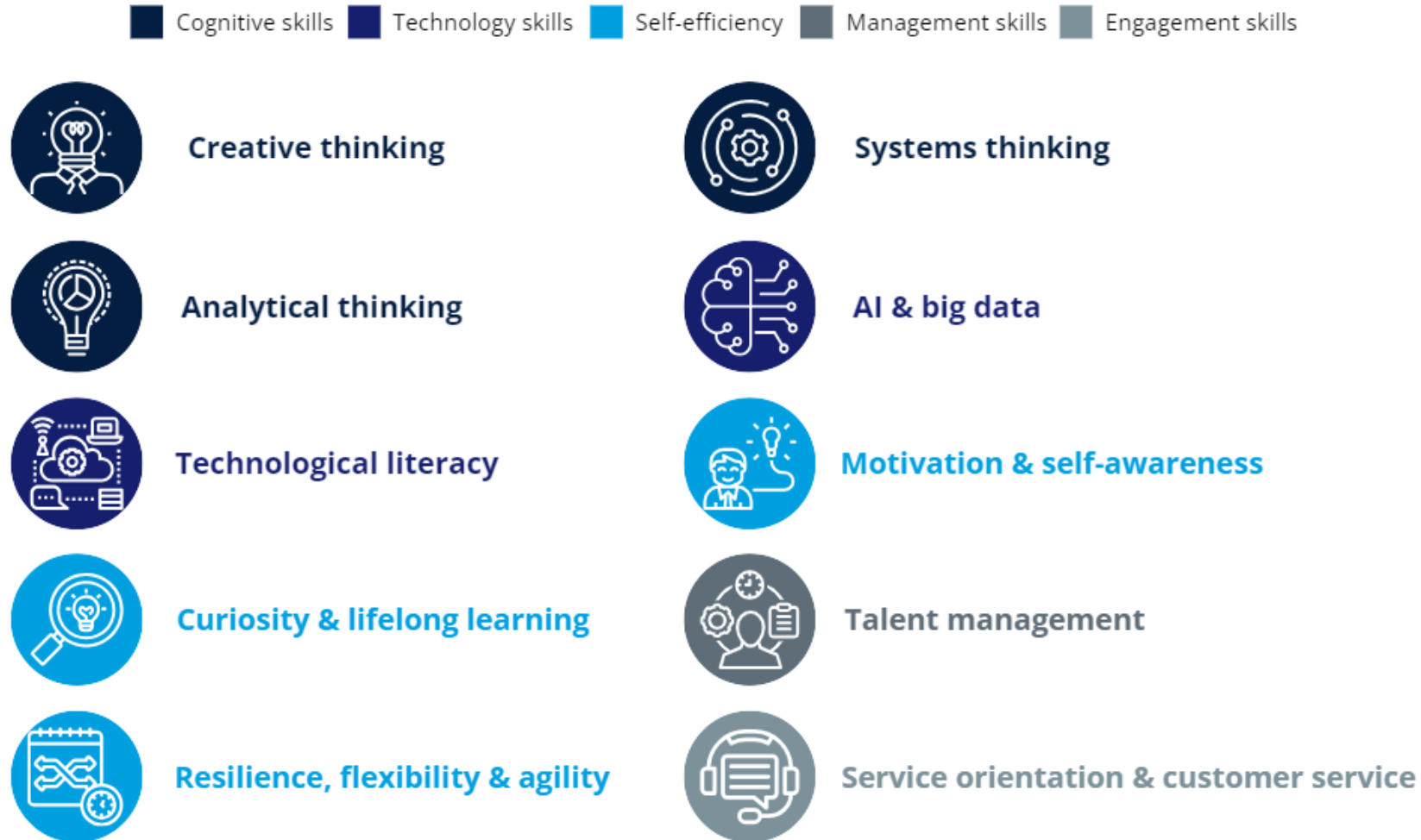
Creativity & innovation

## Further skills



commercial awareness, networking skills, numeracy, cultural awareness & diversity, sales & marketing skills, resilience, language proficiency, research & information gathering, conflict resolution, and financial literacy

# Top 10 skills on the rise



**Source:** World Economic Forum, Future of Jobs

**Note:** The skills judged to be increasing in importance most rapidly between 2023 and 2027.

**Note:** These skills refer to overall skills in the workforce, not just skills in graduates.



# Business' top 10 skill priorities for 2027

Cognitive skills
  Technology skills
  Self-efficiency
  Working with others



**Analytical thinking**



**Creative thinking**



**AI & big data**



**Leadership & social influence**



**Resilience, flexibility & agility**



**Curiosity & lifelong learning**



**Technological literacy**



**Design & user experience**



**Motivation & self-awareness**



**Empathy & active listening**

**Source:** World Economic Forum, Future of Jobs

**Note:** The skills judged to be increasing in importance most rapidly between 2023 and 2027.

**Note:** These skills refer to overall skills in the workforce, not just skills in graduates.

# Annexes

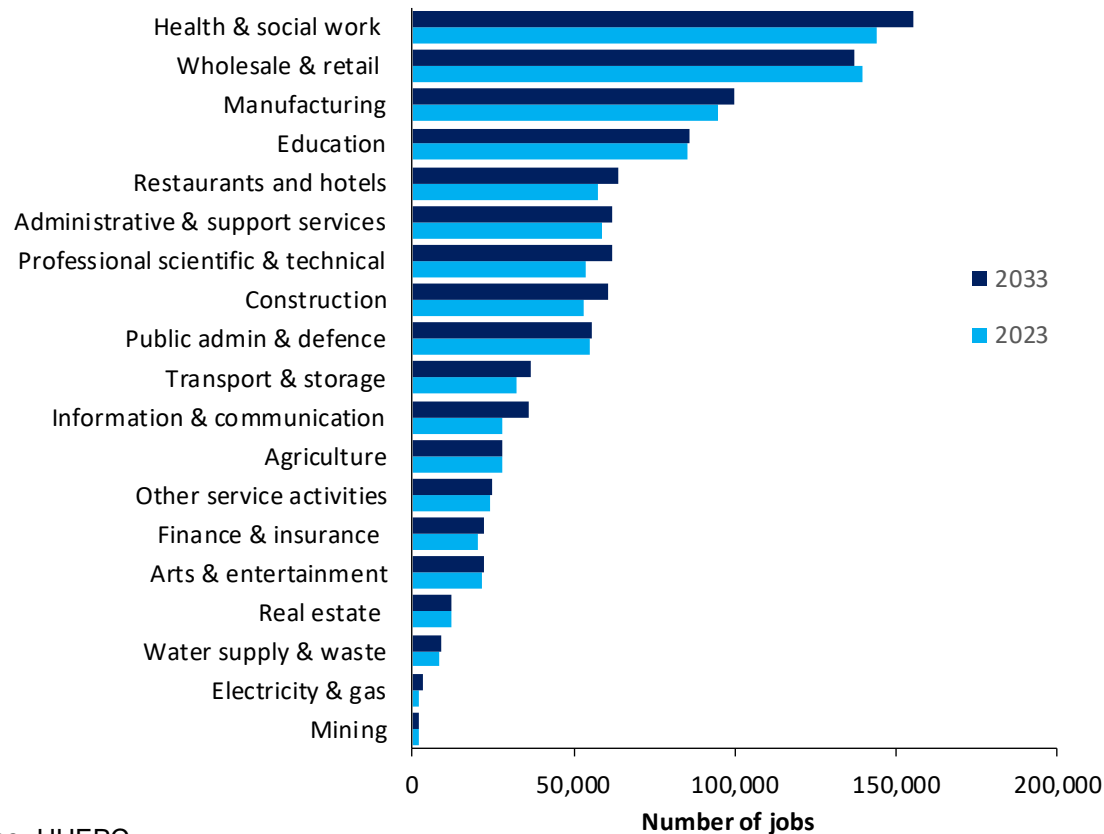
Section 6



## Annex A1 - Baseline Scenario

# Baseline employment forecast - sector

**Employment (jobs) by sector, baseline scenario, NI,  
2023 vs 2033**



Source: UUEPC

**Top 15 fastest growing (CAGR) sectors (2-digit), baseline scenario, 2023-  
2033 (per annum)**

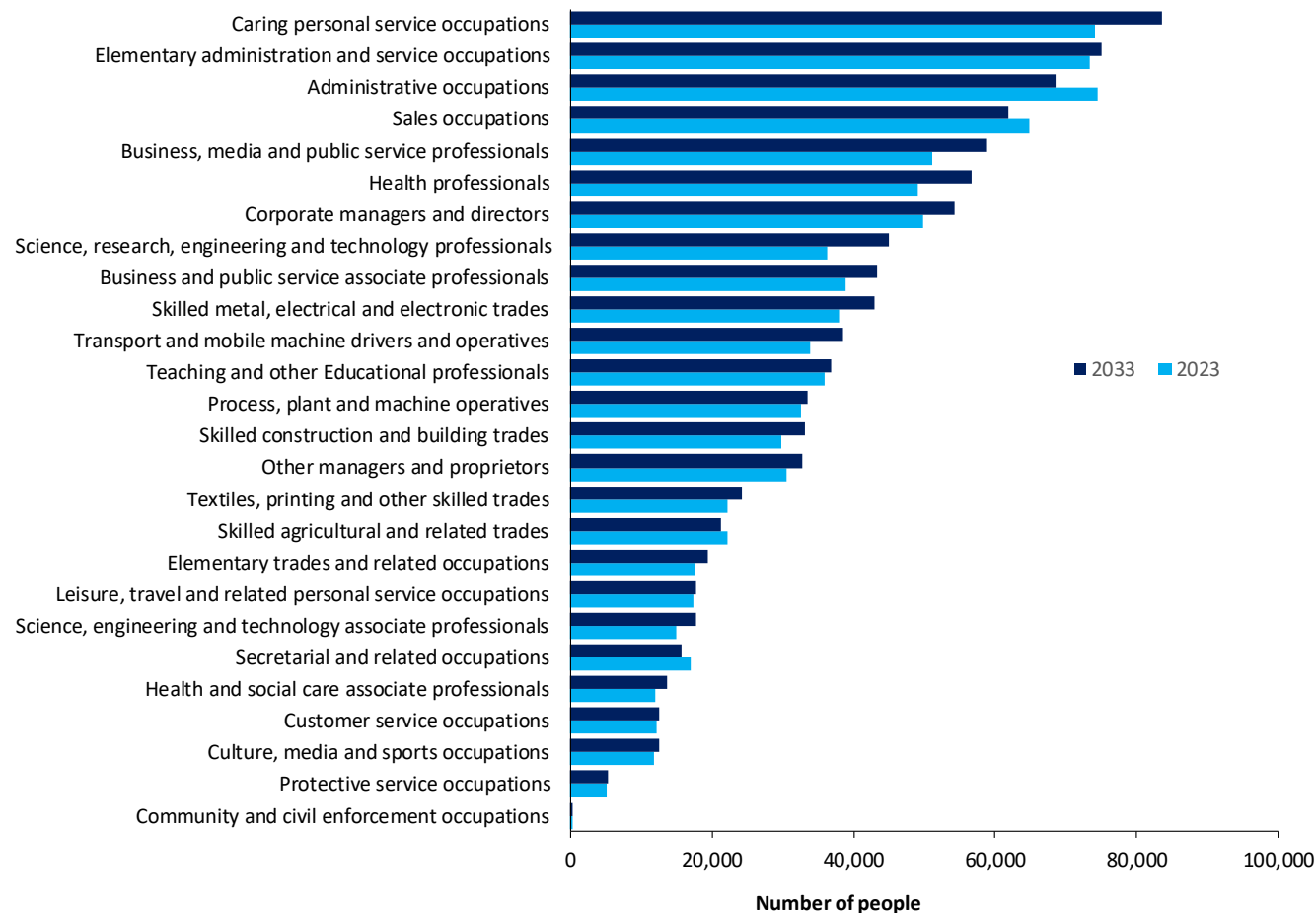
Top 15 sectors (2-digit)	CAGR (2023-2033)
Information service activities	4.4%
Computer programming, consultancy and related activities	4.2%
Remediation activities and other waste management services	3.9%
Manufacture of basic pharmaceutical products and pharmaceutical preparations	3.4%
Activities auxiliary to financial services and insurance activities	3.3%
Electricity, gas, steam and air conditioning supply	3.2%
Other professional, scientific and technical activities	3.1%
Repair and installation of machinery and equipment	2.9%
Activities of households as employers of domestic personnel	2.9%
Warehousing and support activities for transportation	2.8%
Manufacture of basic metals	2.3%
Motion picture, video and television programme production, sound recording and music publishing activities	2.2%
Manufacture of other transport equipment	2.0%
Manufacture of chemicals and chemical products	1.8%
Construction of buildings	1.8%

Source: UUEPC



# Baseline employment forecast - occupation

**Employment (people based) by occupation (2-digit), baseline scenario, NI, 2023 vs 2033**



Source: UUEPC

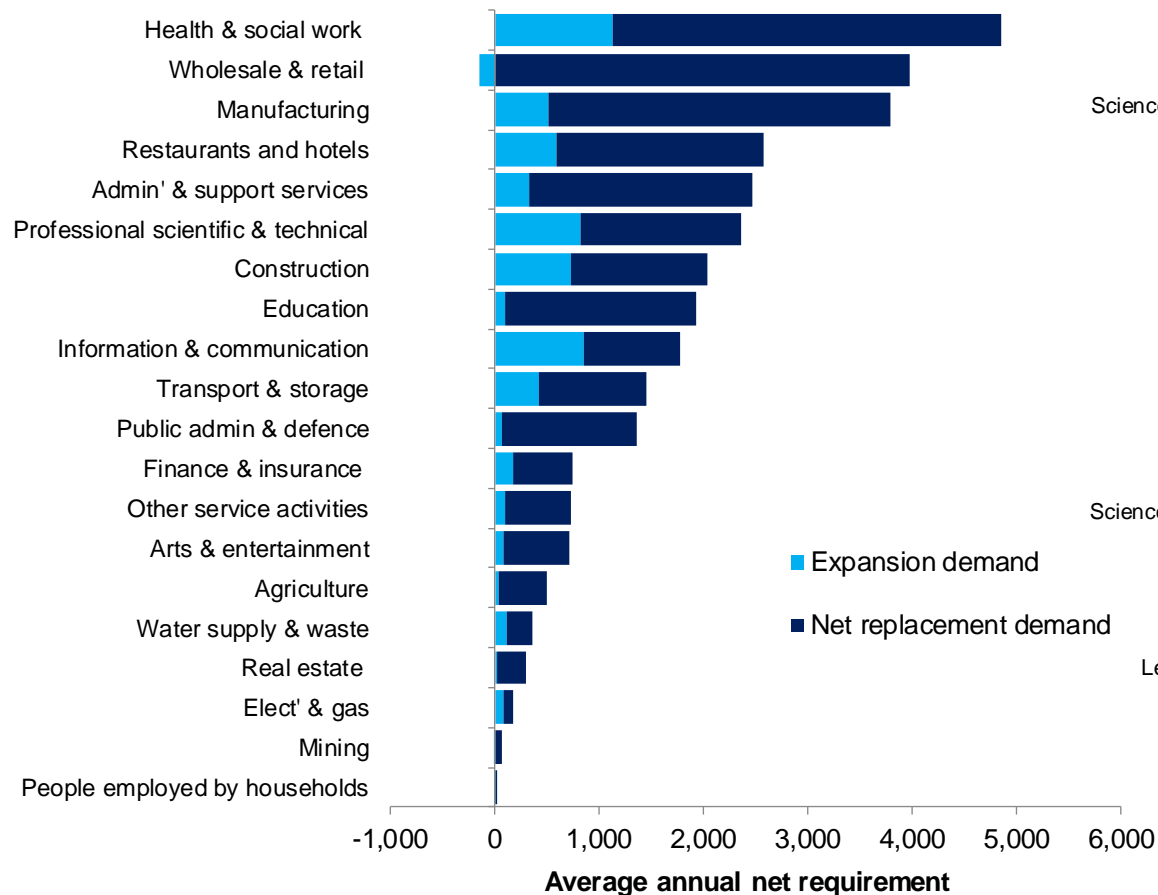
**Top 15 fastest growing (CAGR) occupations (4-digit), baseline scenario, 2023-2033 (per annum)**

Top 15 occupations (4-digit)	CAGR (2023-2033)
Data analysts	5.6%
Cyber security professionals	4.3%
Research and development (R&D) managers	4.1%
IT network professionals	3.5%
Pharmaceutical technicians	3.4%
IT quality and testing professionals	3.2%
Business, research and administrative professionals n.e.c.	3.1%
Programmers and software development professionals	3.1%
Health associate professionals n.e.c.	3.1%
Dispensing opticians	3.0%
Medical and dental technicians	3.0%
IT business analysts, architects and systems designers	3.0%
Conservation professionals	3.0%
IT managers	2.8%
Environment professionals	2.8%

Source: UUEPC

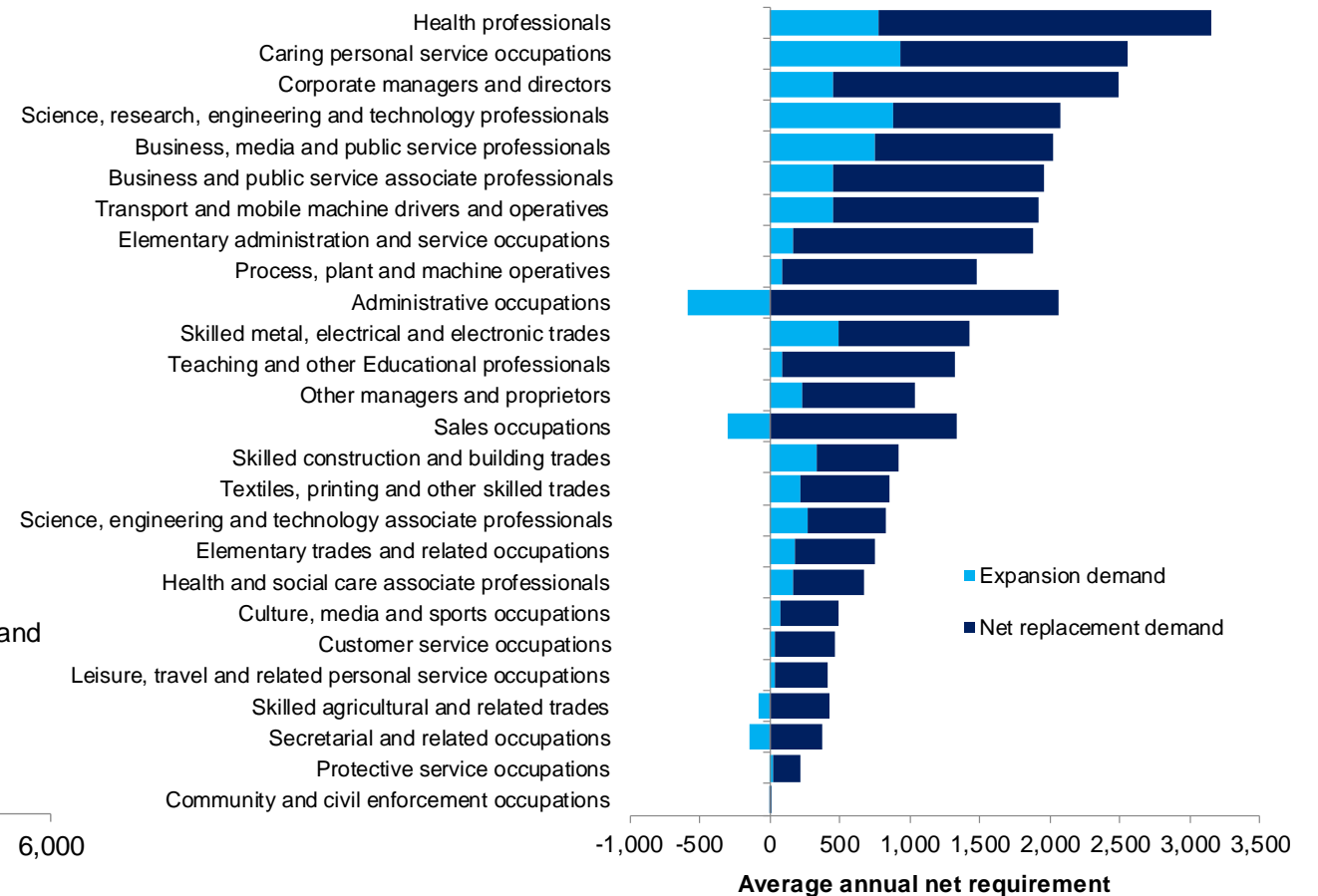
# Net requirement by sector and occupation – baseline scenario

**Average annual net requirement from education and migration by sector (1-digit), baseline scenario, NI, 2023-2033**



Source: UUEPC

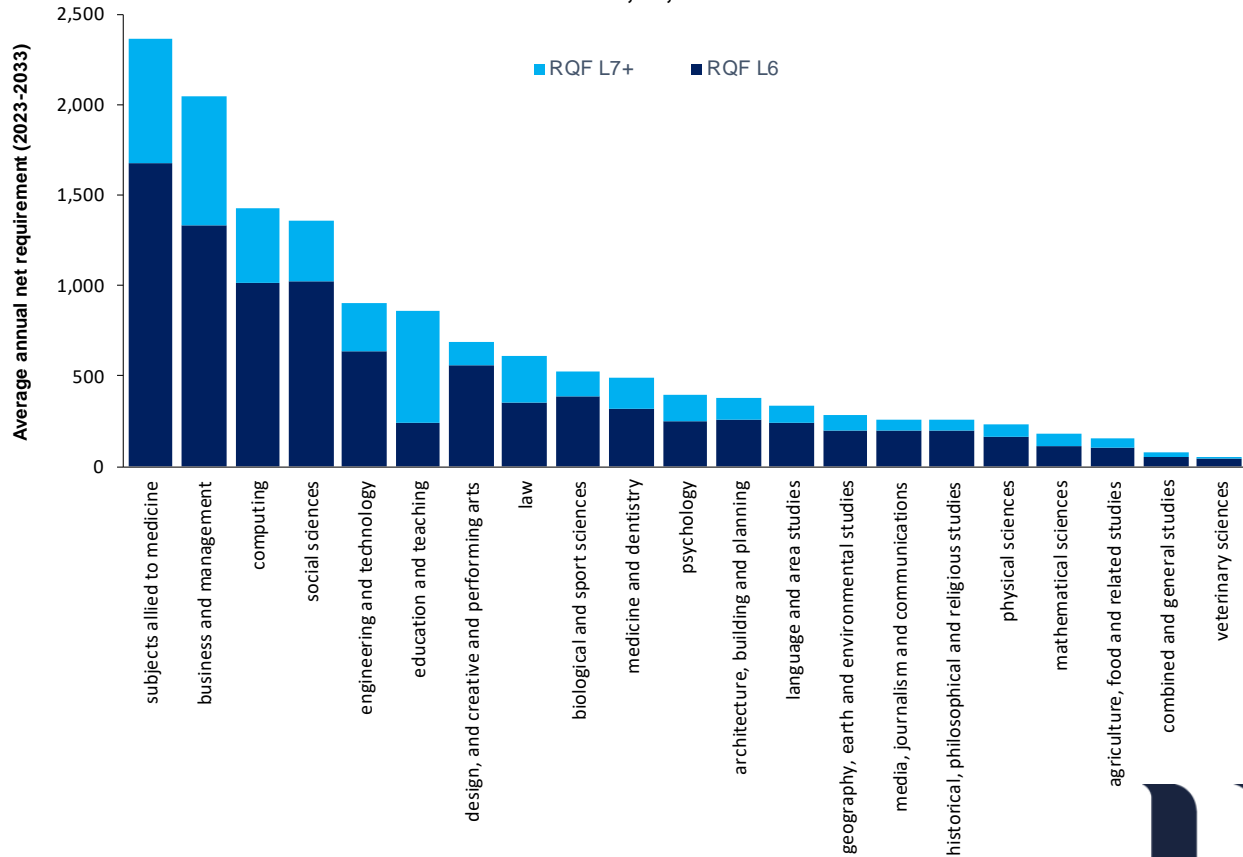
**Average annual net requirement from education and migration by occupation (2-digit), baseline scenario, NI, 2023-2033**



Source: UUEPC

# Net requirement by degree subject – baseline scenario

Average annual net requirement by RQF level 6+ subject (CAH, 2-digit), baseline scenario, NI, 2023-2033

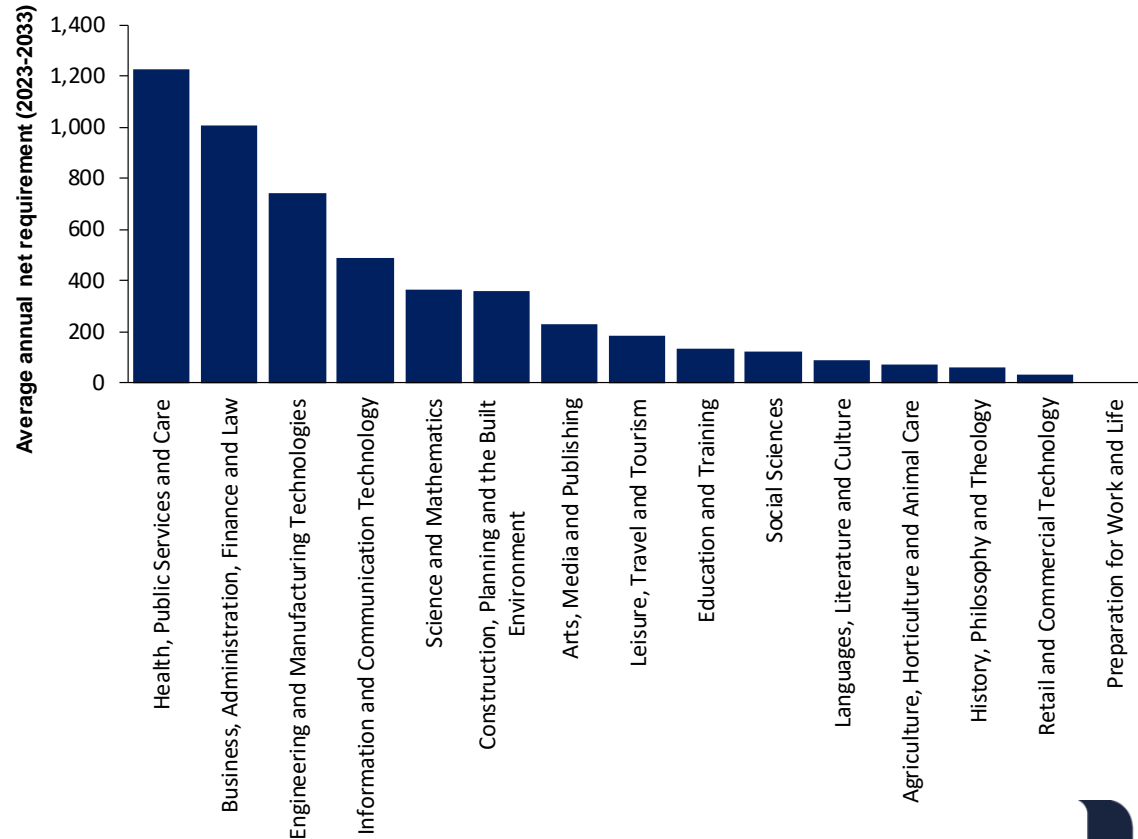


Source: UUEPC



# Net requirement by sub-degree subject – baseline scenario

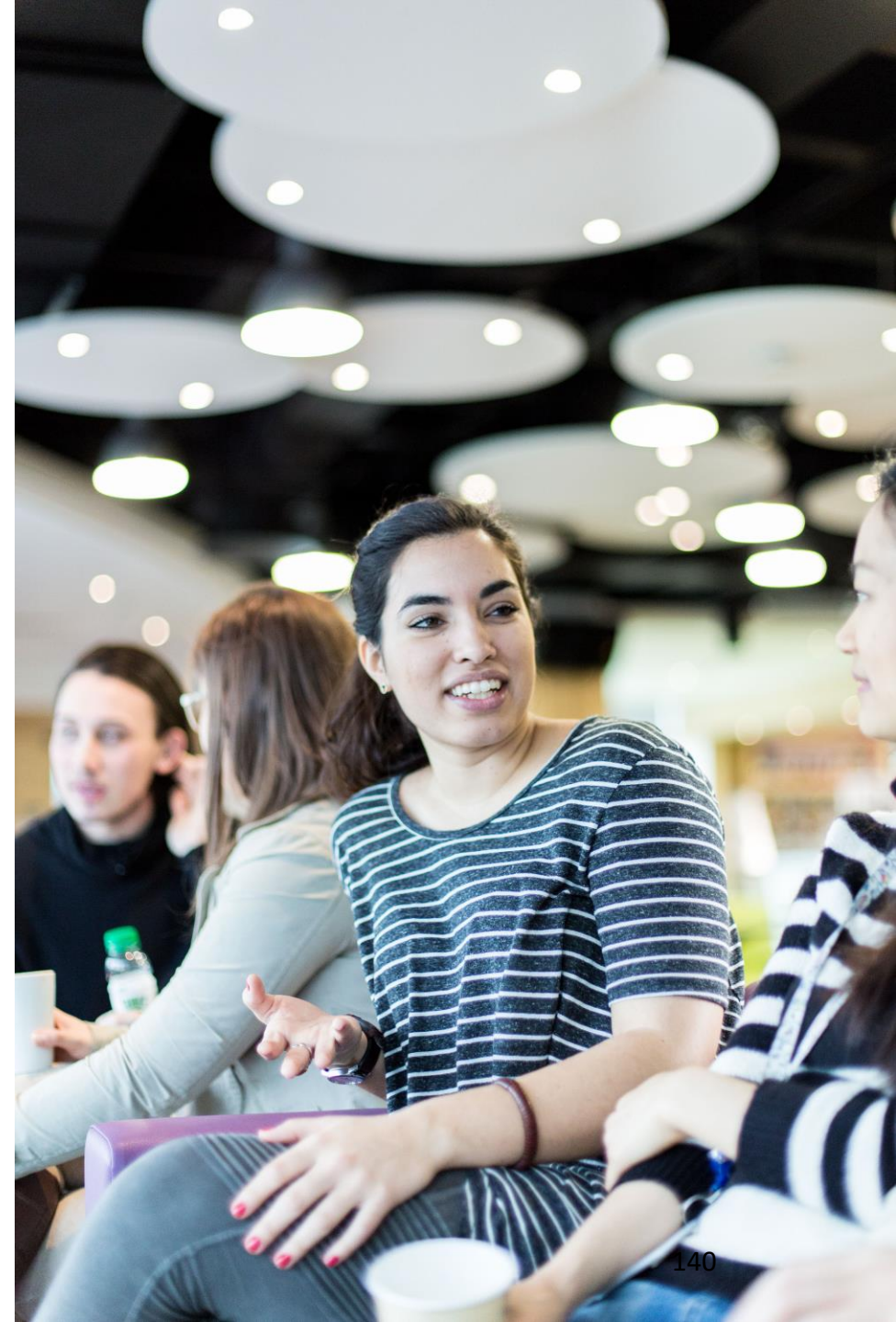
Average annual net requirement by RQF level 4-5 subject (SSA, 1-digit), baseline scenario, NI, 2023-2033



Source: UUEPC



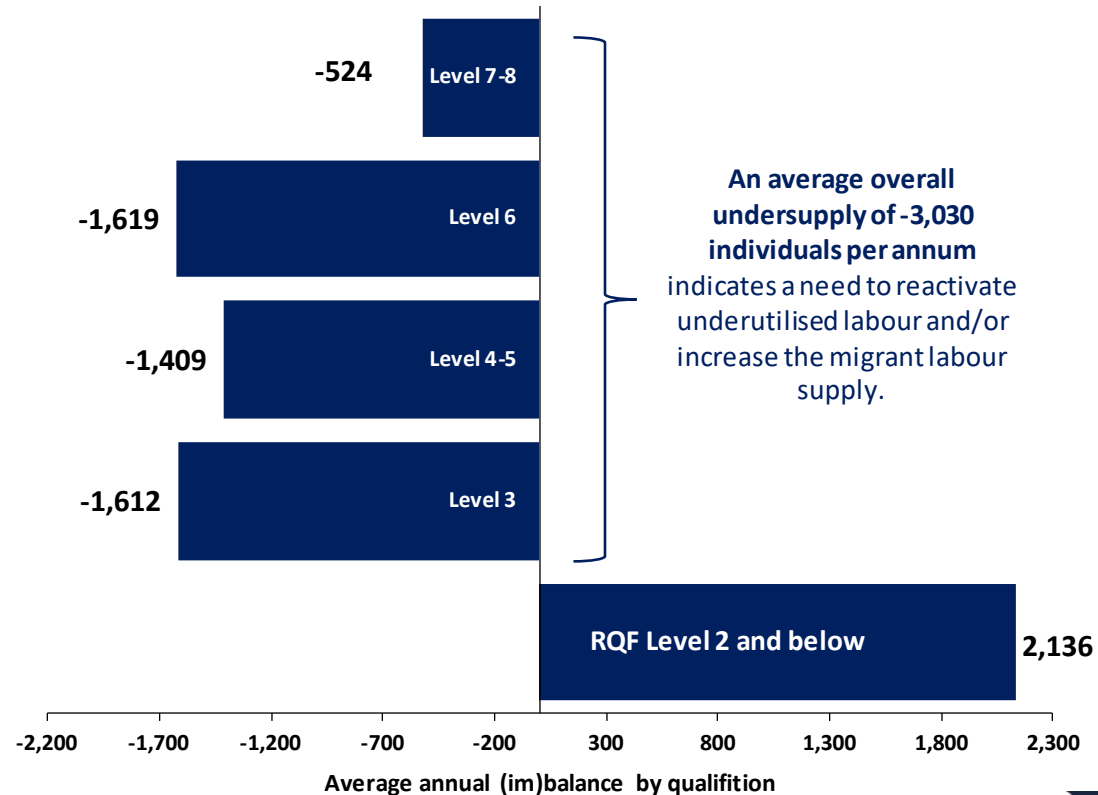
Economic Policy  
Centre





# (im)balances by qualification – baseline scenario

Average annual (im)balance by qualification (RQF), baseline scenario, NI, 2023-2033



Source: UUEPC

**Note:** The supply gaps in the above chart have been calculated based on 'net supply'. This takes account of migration patterns amongst qualifiers at NI HEI's and NI domiciled qualifiers qualifying from GB HEI's, in addition to labour force participation.

**Note:** For some qualifiers it may be the case they require additional employability skills before accessing employment in a job commensurate to their level of qualification.



Economic Policy  
Centre

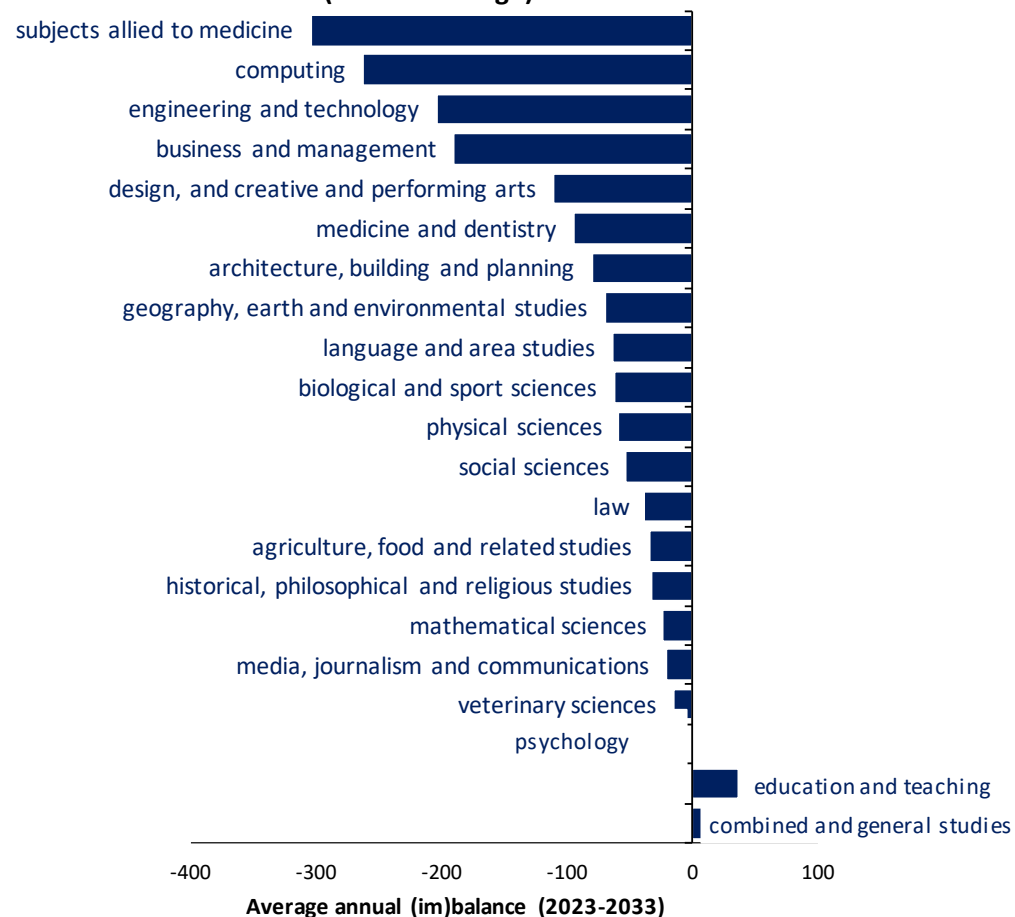




# (im)balances by degree subject – baseline scenario

## Undergraduate (im)balance

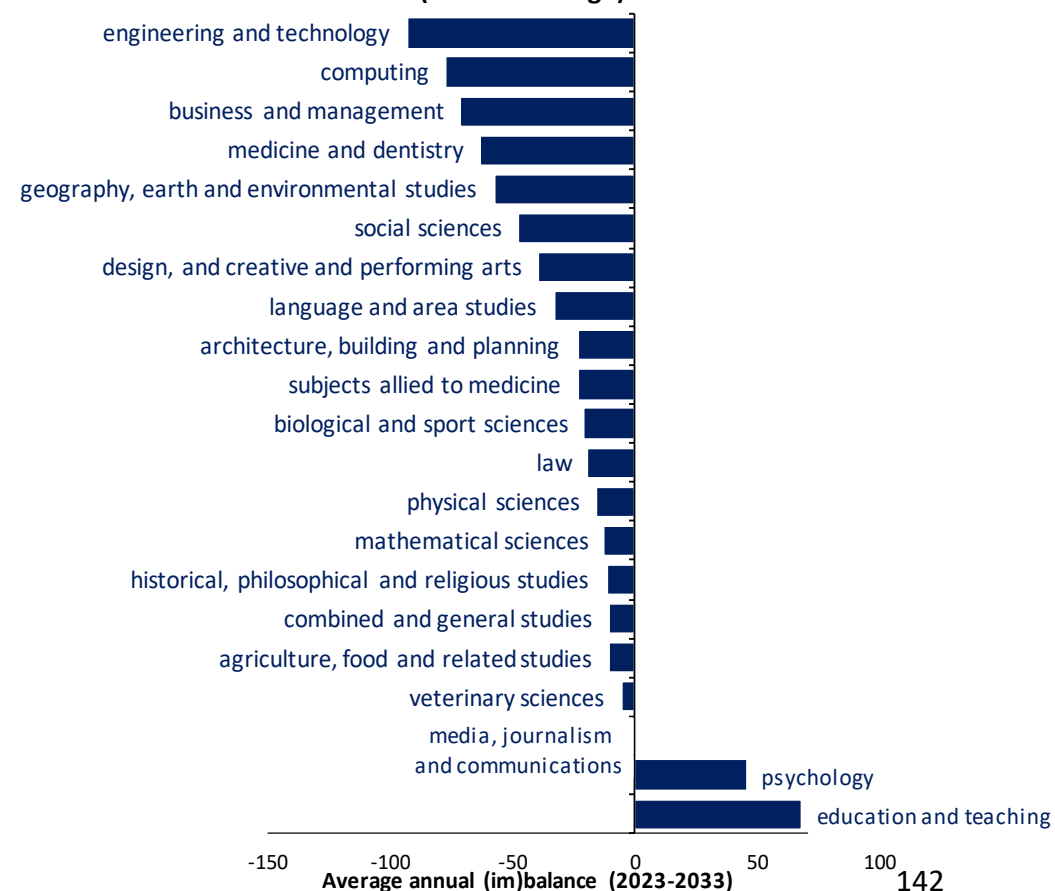
(Im)balance by subject (broad), baseline scenario, RQF Level 6, NI, 2023-2033  
(annual average)



Source: UUEPC

## Postgraduate (im)balance

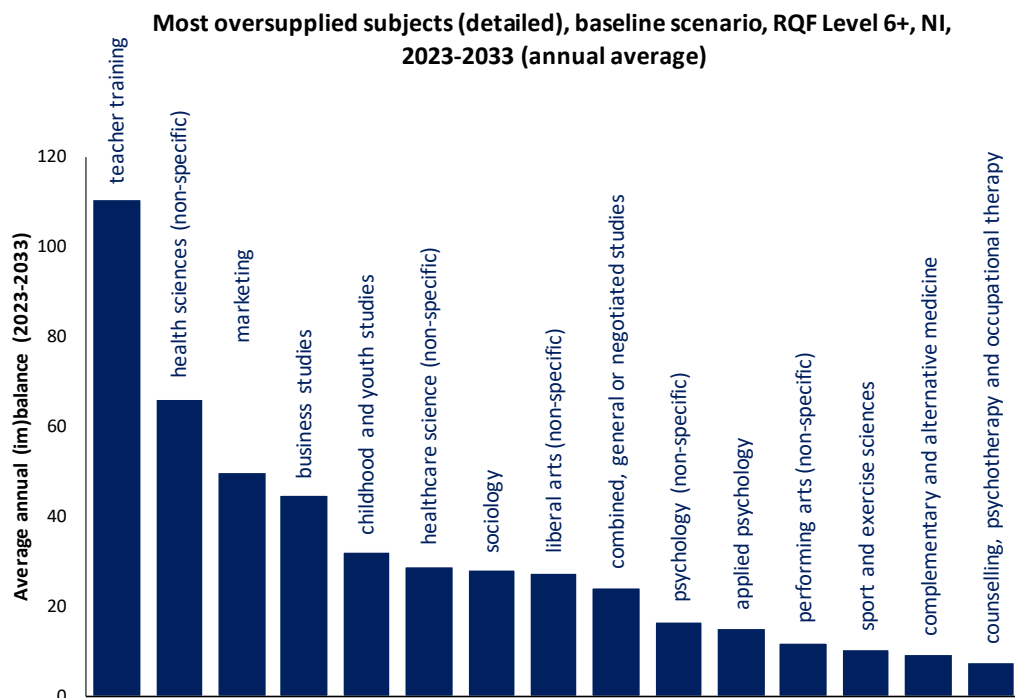
(Im)balance by subject (broad), baseline scenario, RQF Level 7-8, NI, 2023-2033  
(annual average)



Source: UUEPC

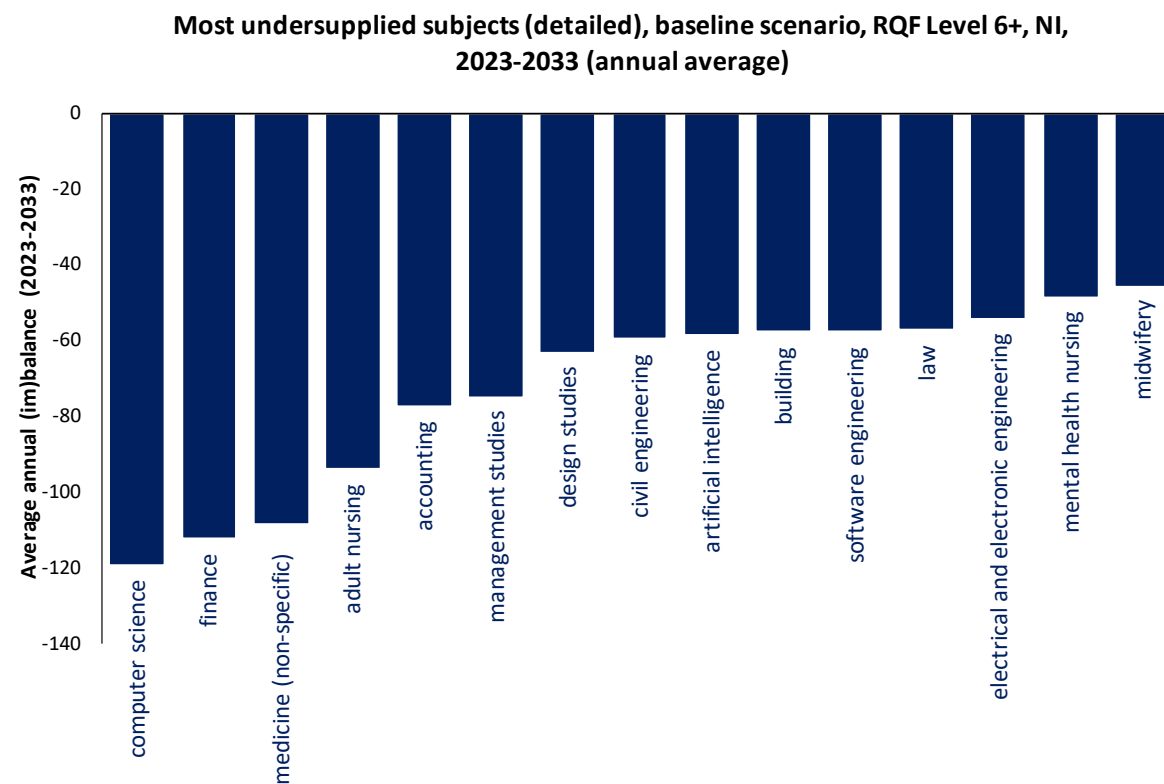
# (im)balances by degree subject – baseline scenario

## Degree level and above oversupply (detailed subjects)



Source: UUEPC

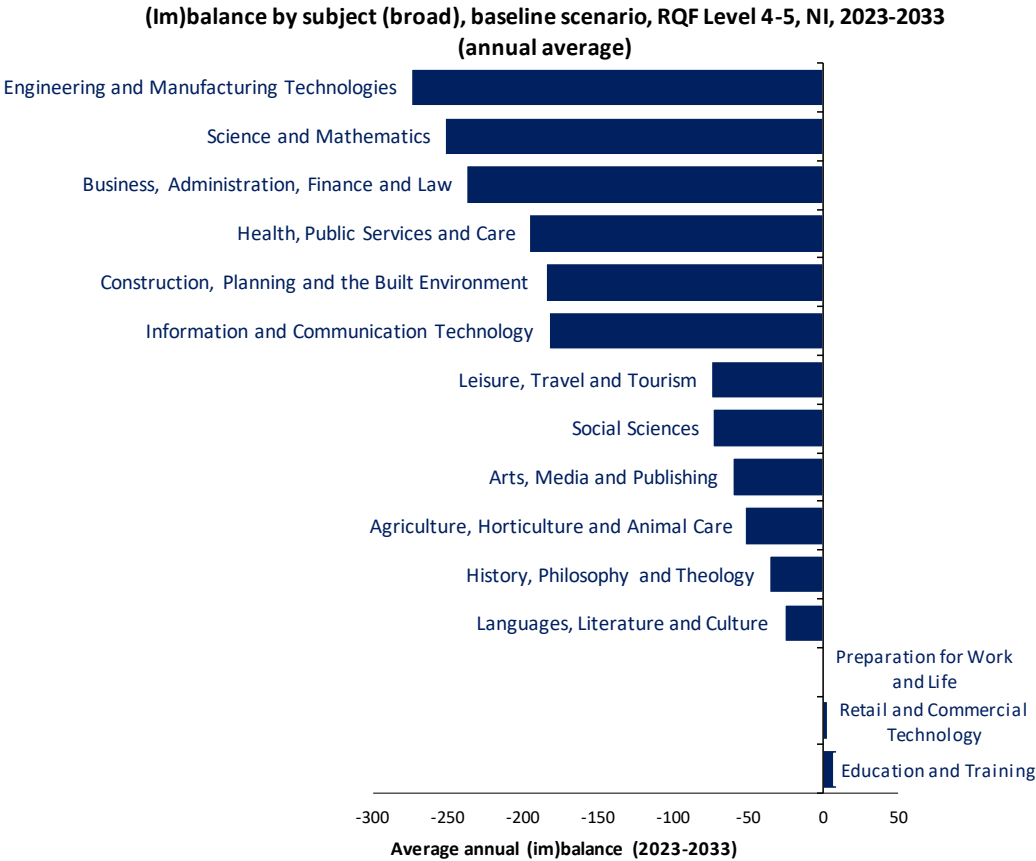
## Degree level and above undersupply (detailed subjects)



Source: UUEPC

# (im)balances by sub-degree subject – baseline scenario

## Sub-degree (im)balance



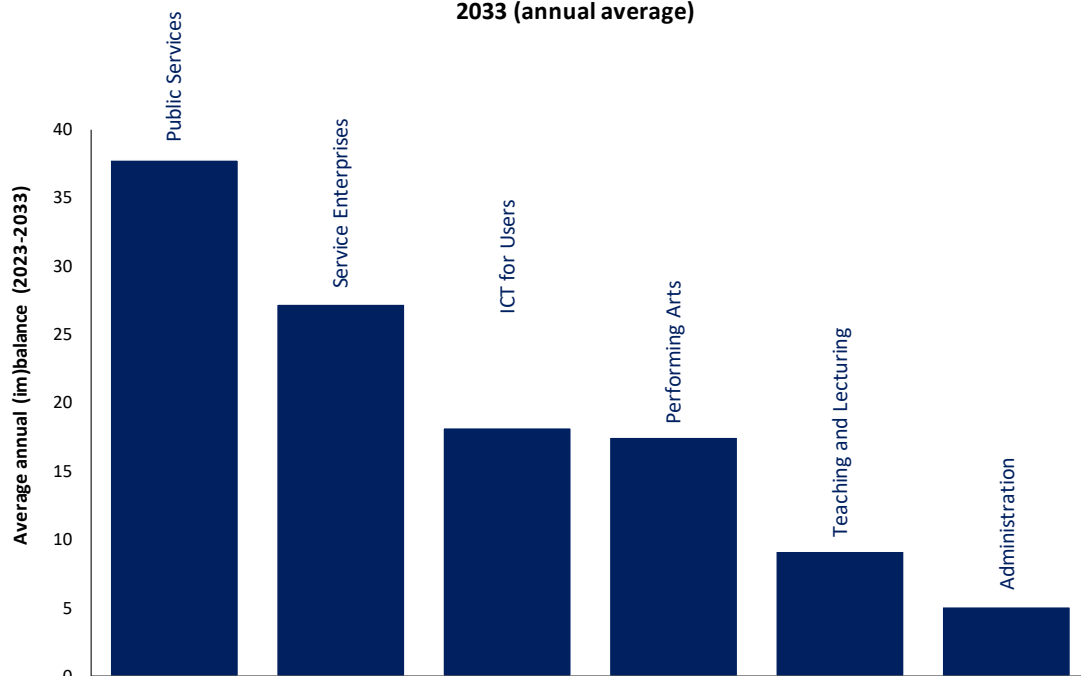
Source: UUEPC



# Supply gap by sub-degree subject – baseline scenario

## Sub-degree oversupply (detailed subjects)

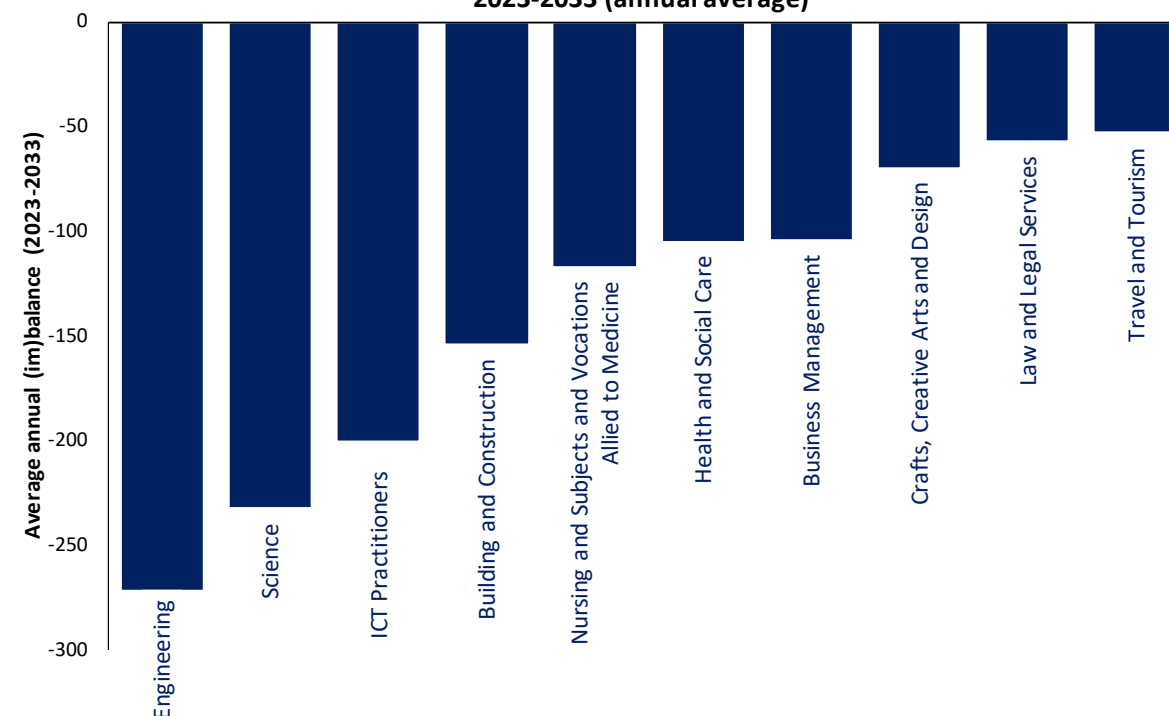
Most oversupplied subjects (detailed), baseline scenario, RQF Level 4-5, NI, 2023-2033 (annual average)



Source: UUEPC

## Sub-degree undersupply (detailed subjects)

Most undersupplied subjects (detailed), baseline scenario, RQF Level 4-5, NI, 2023-2033 (annual average)



Source: UUEPC

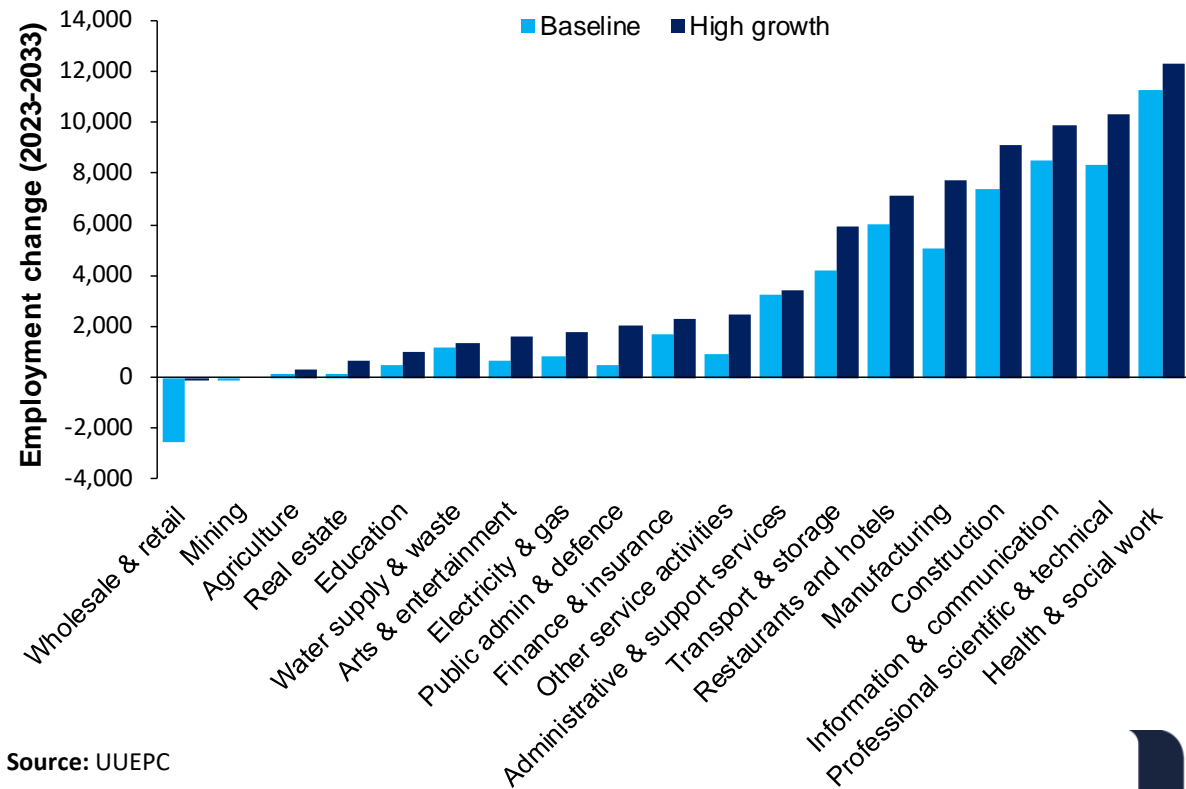




## **Annex A2 - Baseline versus high growth scenario**

# High growth scenario versus baseline scenario

Employment change (jobs) high growth scenario versus baseline scenario, NI, 2023-2033

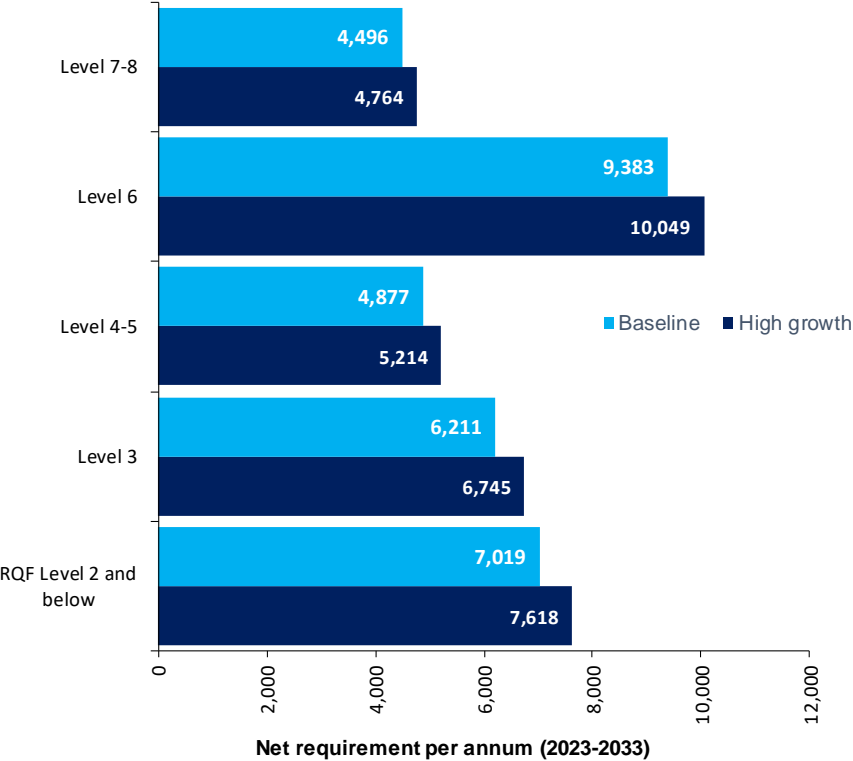


Source: UUEPC



# Demand from education & migration by scenario

Average annual net requirement by qualification, baseline versus high growth scenario's, NI, 2023-2033



41% of the net requirement in the baseline scenario require at least degree level qualifications.

Total baseline= 32.0k p.a.

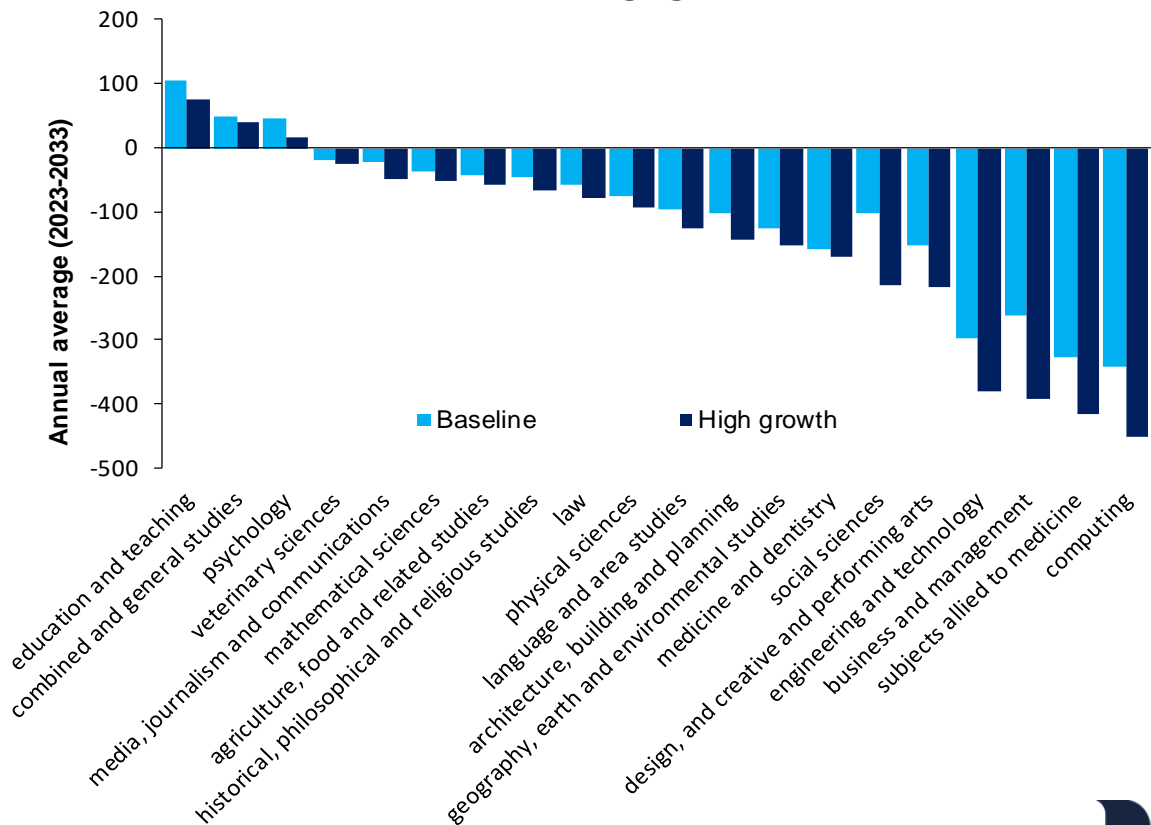
Source: UUEPC





# (im)balance by degree subject

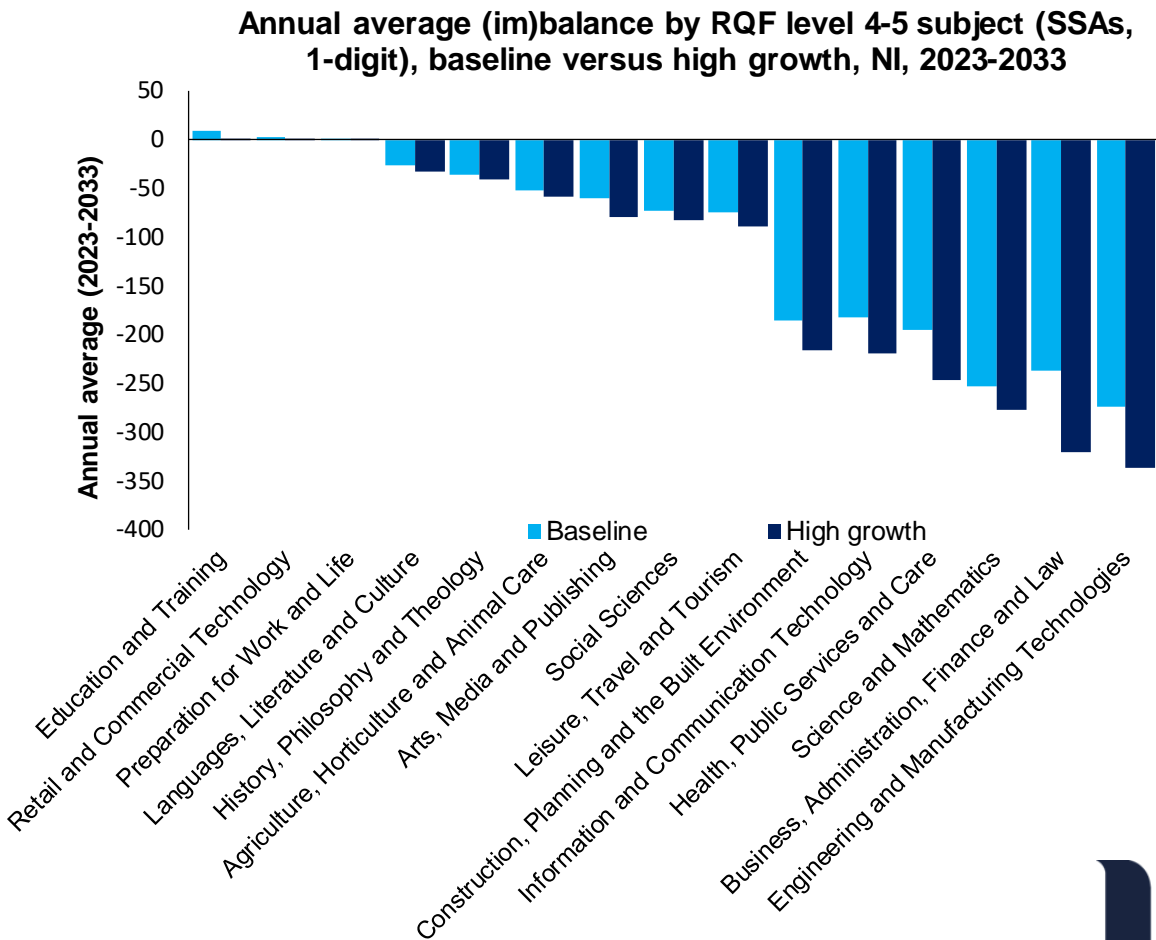
Annual average (im)balance by RQF level 6+ subject (CAH, 2-digit), baseline versus high growth, NI, 2023-2033



Source: UUEPC



# (im)balance by sub-degree subject



Source: UUEPC



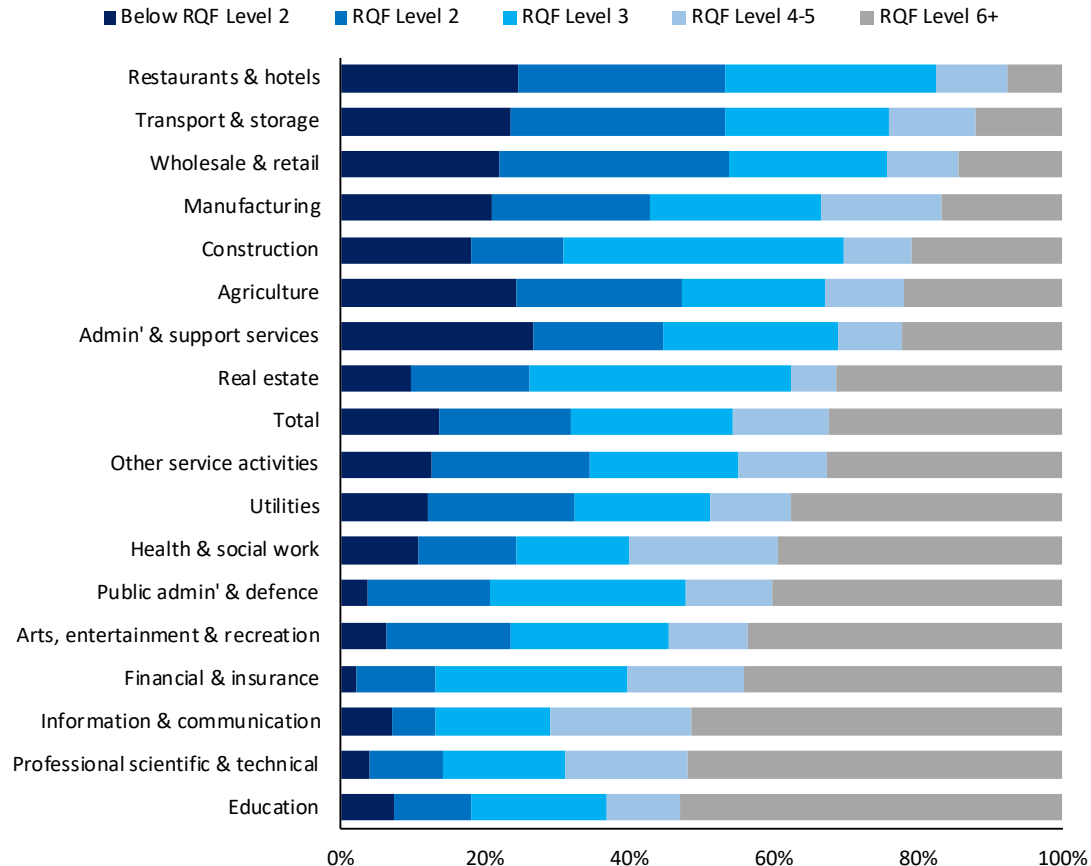




## **Annex B1 – current skills mix by sector & occupation**

# Current skills mix by sector

Qualifications mix (RQF) by sector (1-digit), aged 16+, NI, 2023



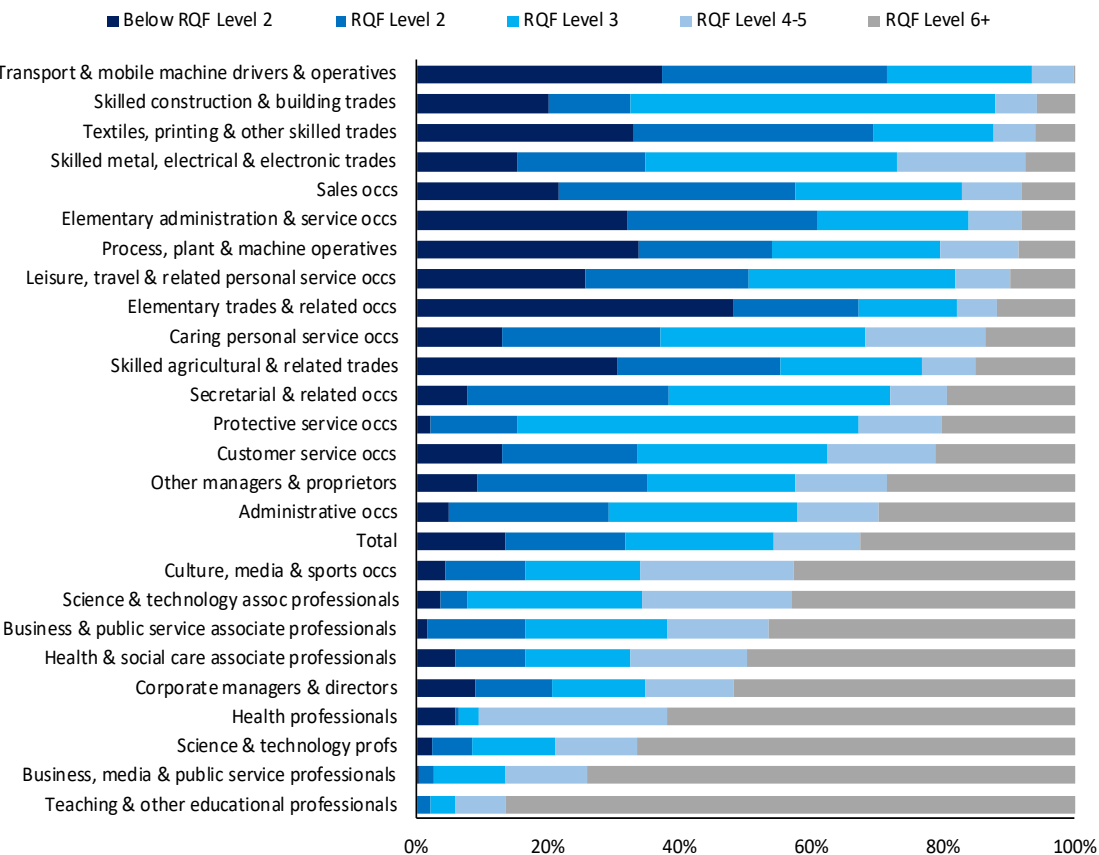
Source: Labour Force Survey, UUEPC analysis

Note: Figures are based on a 4-quarter rolling average



# Current skills mix by occupation

Qualification mix (RQF) by occupation (2-digit), aged 16+, NI, 2023



**Source:** Labour Force Survey, UUEPC analysis  
**Note:** Figures are based on a 4-quarter rolling average







## **Annex C1 – What graduates do sectors recruit? (15 months after graduation)**



# Subject mix by sector

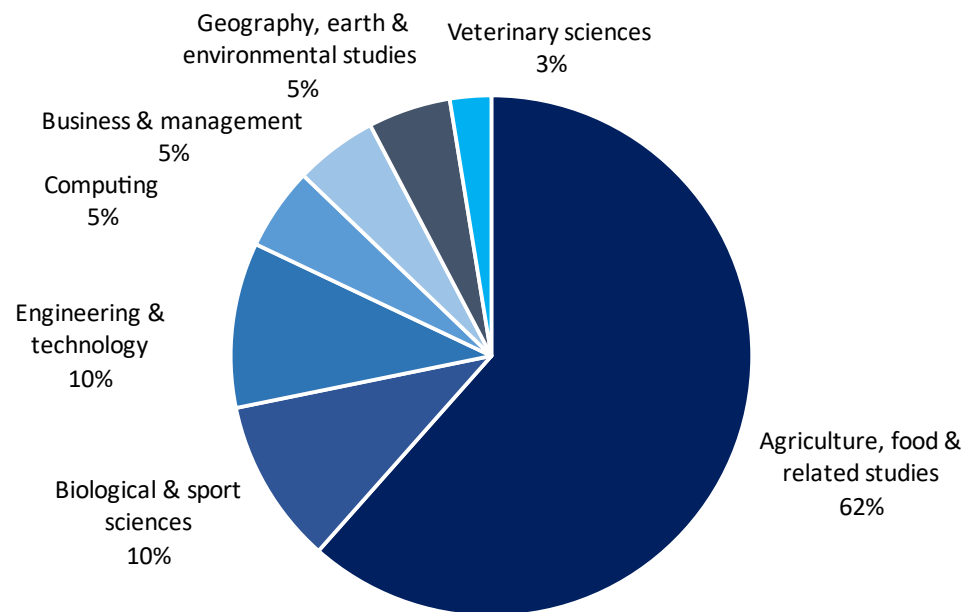
The following charts provide an overview of the mix of subjects studied at RQF level 6+ (or equivalent) recruited into each sector (1-digit), 15 months after graduating.

It is evident there is a strong link between some degree subjects and industry sectors. For example, subjects allied to medicine is the largest degree subject within the health and social work sector and agriculture and food sciences is the largest degree subject within the agriculture sector.

However, there are some degree subjects that are highly represented among a number of sectors. For example, business and management degrees account for a significant proportion of wholesale and retail, transport and storage, finance and insurance, real estate sector etc. This pattern creates a high demand for skills acquired within these degree subjects across the economy.

# Degree subject mix by sector (1)

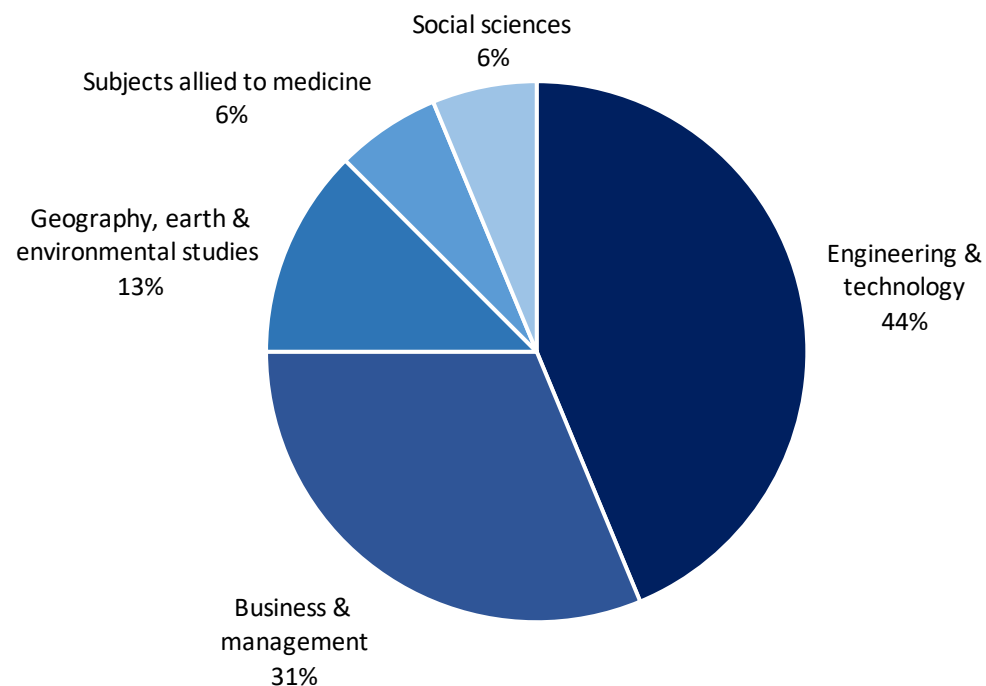
**Agriculture sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**



Source: Graduate Outcomes, HESA

Note: Figures may not sum due to rounding.

**Mining sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**

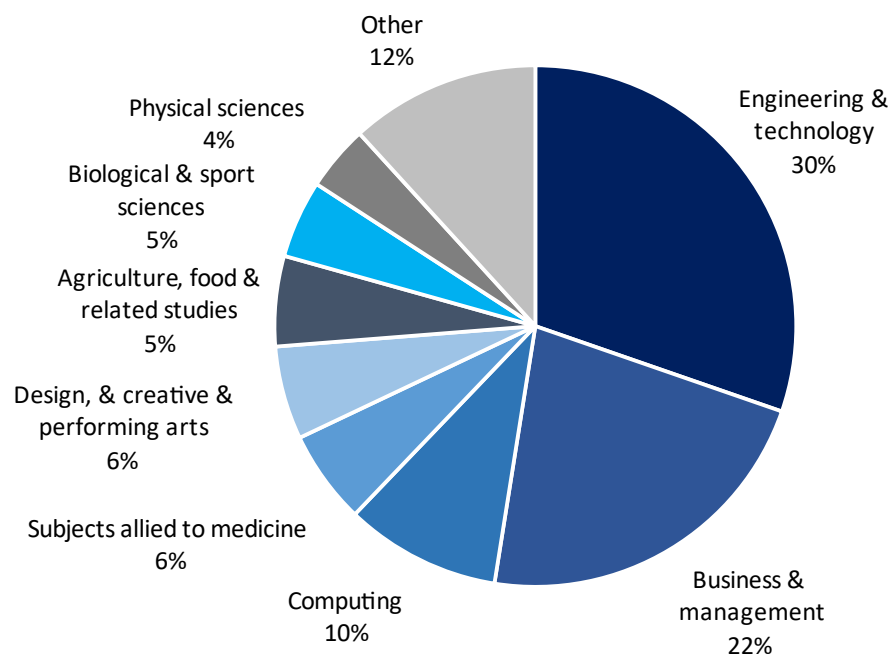


Source: Graduate Outcomes, HESA

Note: Figures may not sum due to rounding.

# Degree subject mix by sector (2)

**Manufacturing sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**

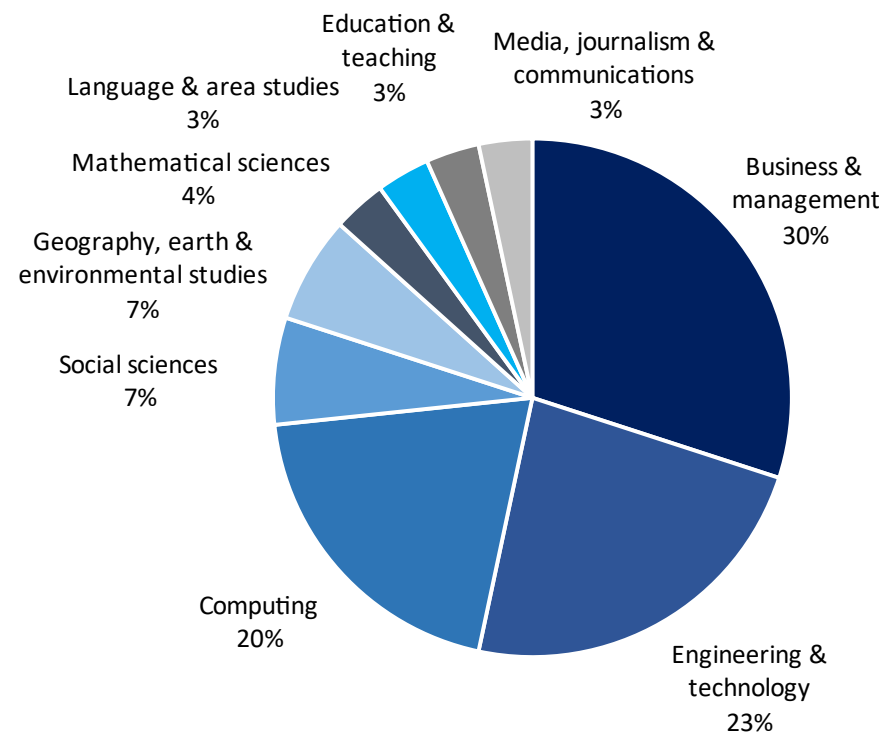


**Note:** Other includes, Media, Journalism & Communications, Social Sciences, Languages & Area Studies, Historical, Philosophical & Religious Studies, Psychology, Geography, Earth & Environmental Studies, Mathematical Sciences, Architecture, Building & Planning and Education & Training.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Electricity & gas sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**

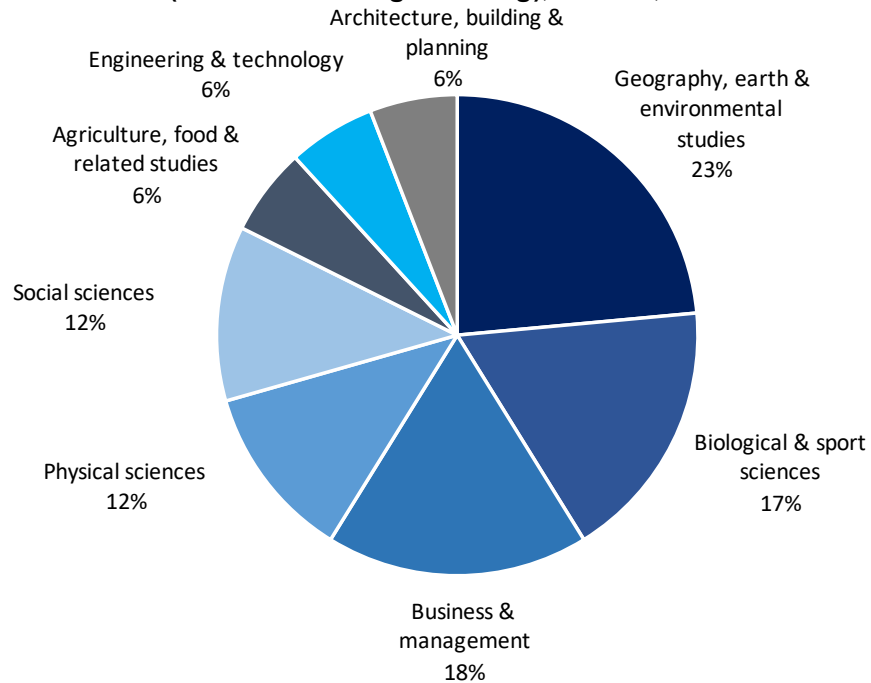


**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by sector (3)

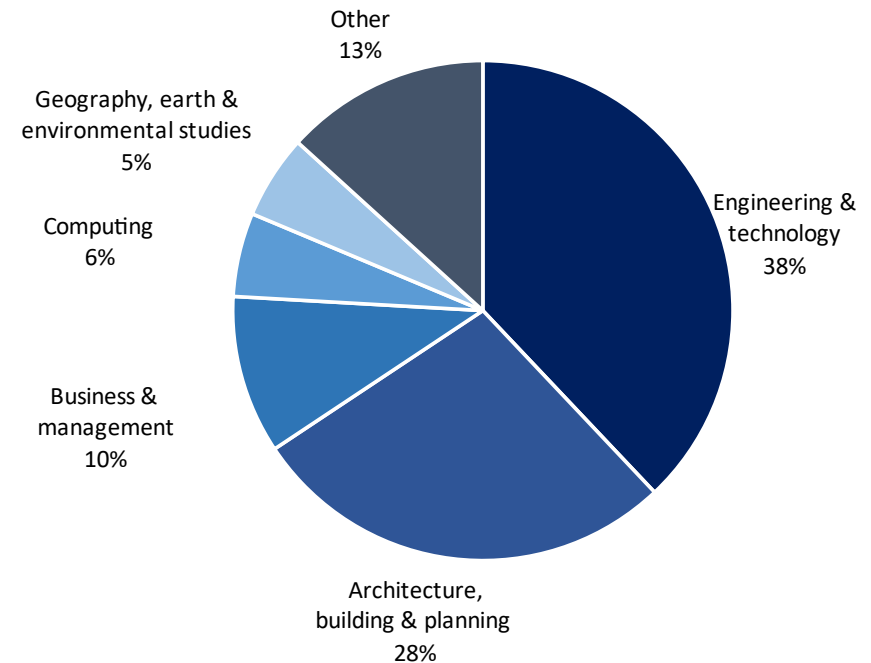
**Water supply & waste sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**



**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Construction sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**



**Note:** Other includes; Design, & Creative & Performing Arts, Biological & Sport Sciences, Social Sciences, Language & Area Studies, Historical, Philosophical & Religious Studies, Subjects Allied to Medicine, Agriculture, Food & Related Studies, Psychology and Law.

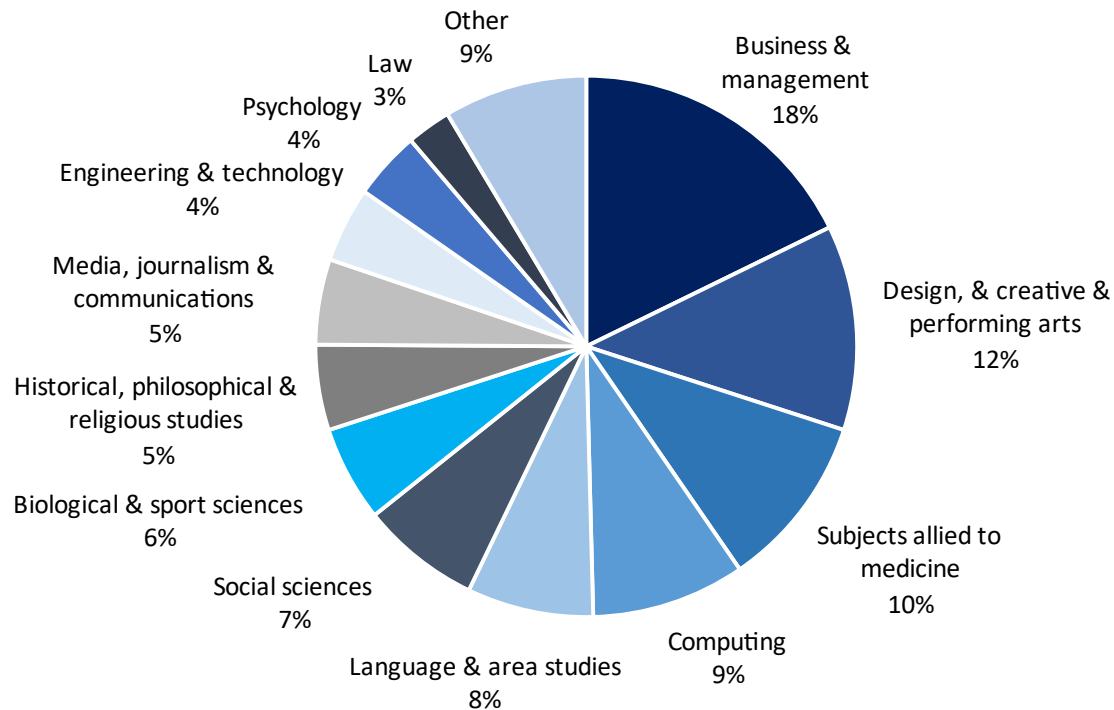
**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.



# Degree subject mix by sector (4)

**Wholesale & retail sector (RQF level 6+) by graduate subject mix  
(15 months after graduating), NI HEIs, 2021/22**

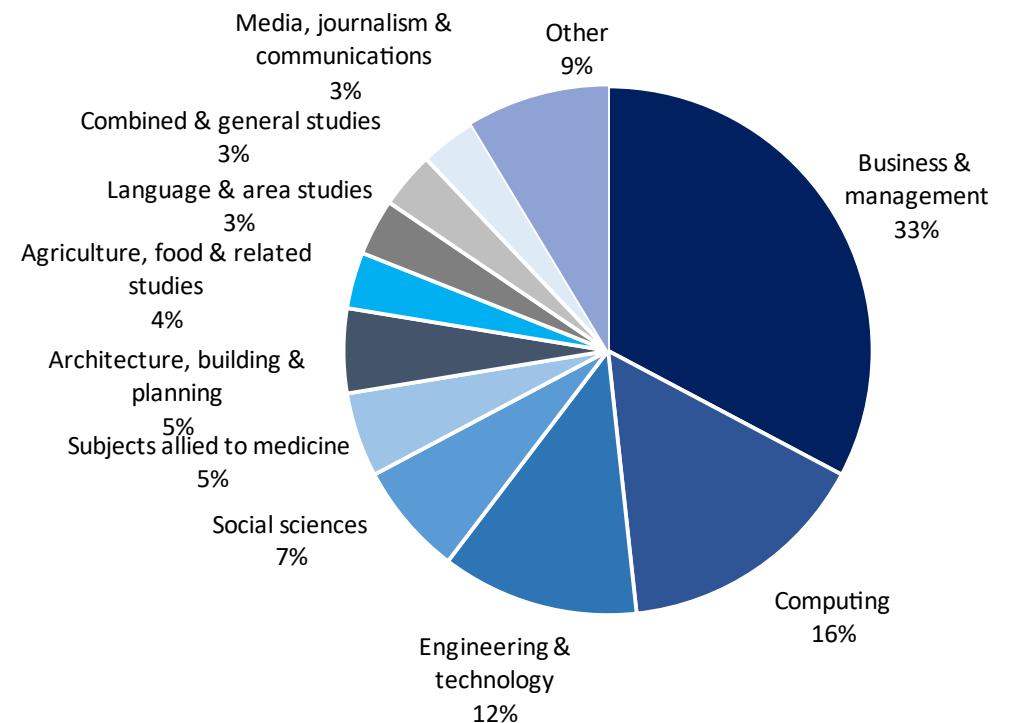


**Note:** Other includes; Geography, Earth & Environmental Studies, Architecture, Building & Planning, Agriculture, Food & Related Studies, Mathematical Sciences, Education & Teaching, Combined & General Studies and Physical Sciences.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Transport & storage sector (RQF level 6+) by graduate subject mix  
(15 months after graduating), NI HEIs, 2021/22**



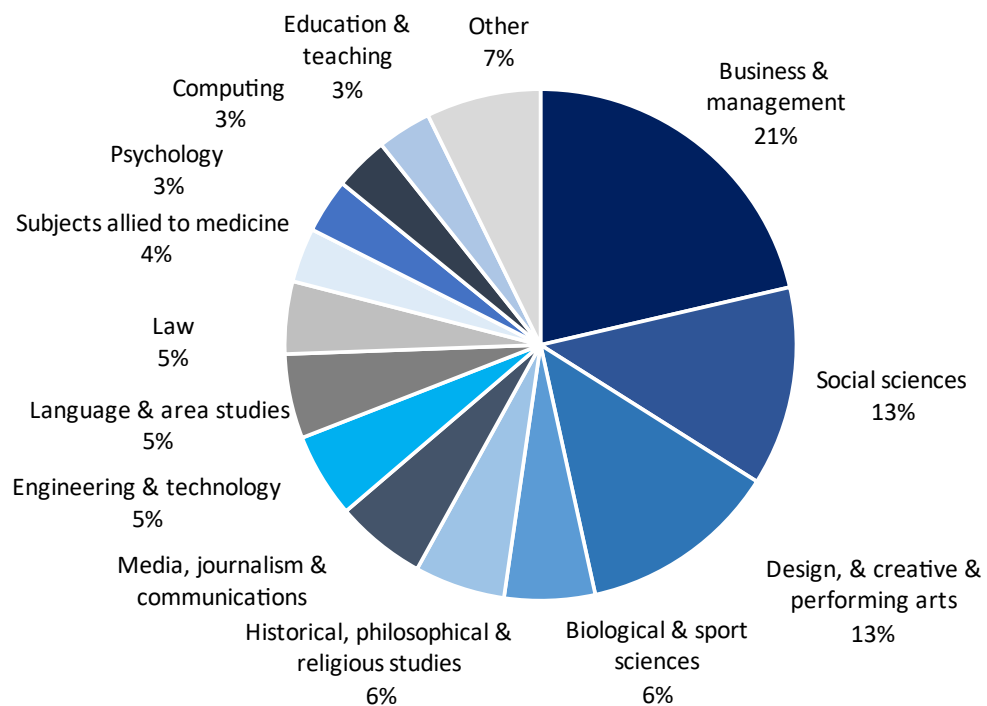
**Note:** Other includes; Mathematical Sciences, Law, Historical, Philosophical & Religious Studies, Geography, Earth & Environmental Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by sector (5)

**Restaurants & hotels sector (RQF level 6+) by graduate subject mix  
(15 months after graduating), NI HEIs, 2021/22**

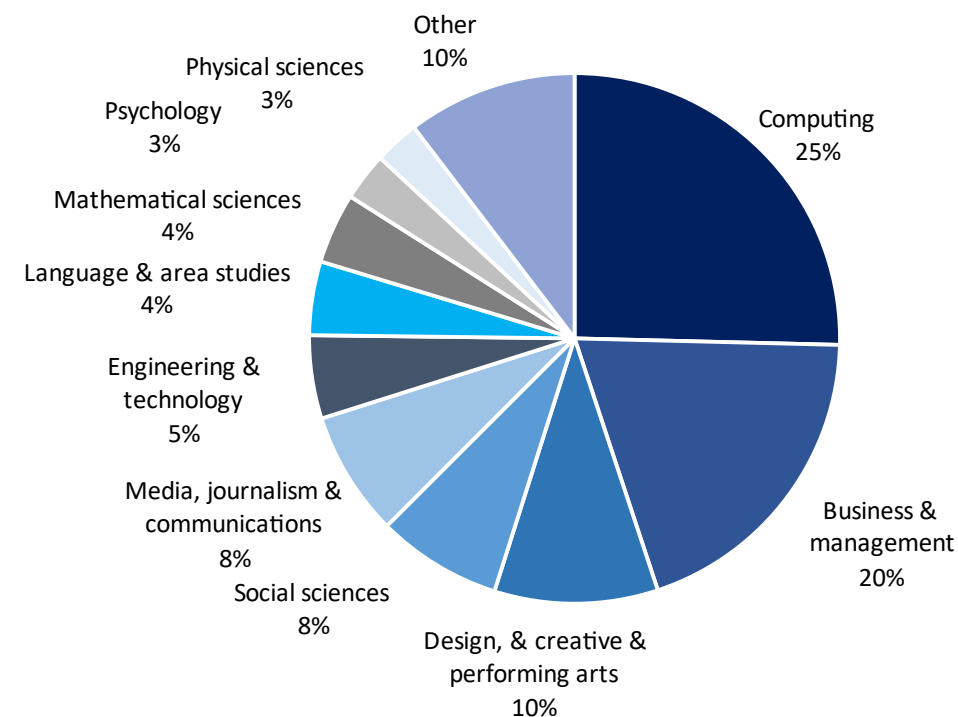


**Note:** Other includes; Architecture, Building & Planning, Geography, Earth & Environmental Studies, Physical Sciences, Combined & General Studies and Agriculture, Food & Related Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Information & communication sector (RQF level 6+) by graduate  
subject mix (15 months after graduating), NI HEIs, 2021/22**



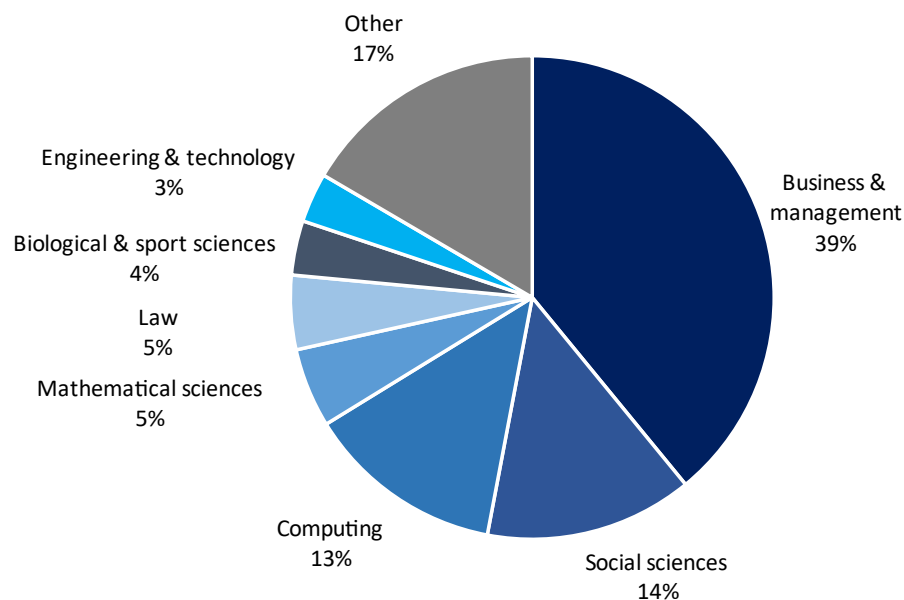
**Note:** Other includes; Law, Biological & Sports Sciences, Historical, Philosophical & Religious Studies, Geography, Earth & Environmental Studies, Combined & General Studies, Subjects Allied to Medicine, Agriculture, Food & Related Studies and Architecture, Building & Planning.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by sector (6)

Finance & insurance sector (RQF level 6+) by graduate subject mix  
(15 months after graduating), NI HEIs, 2021/22

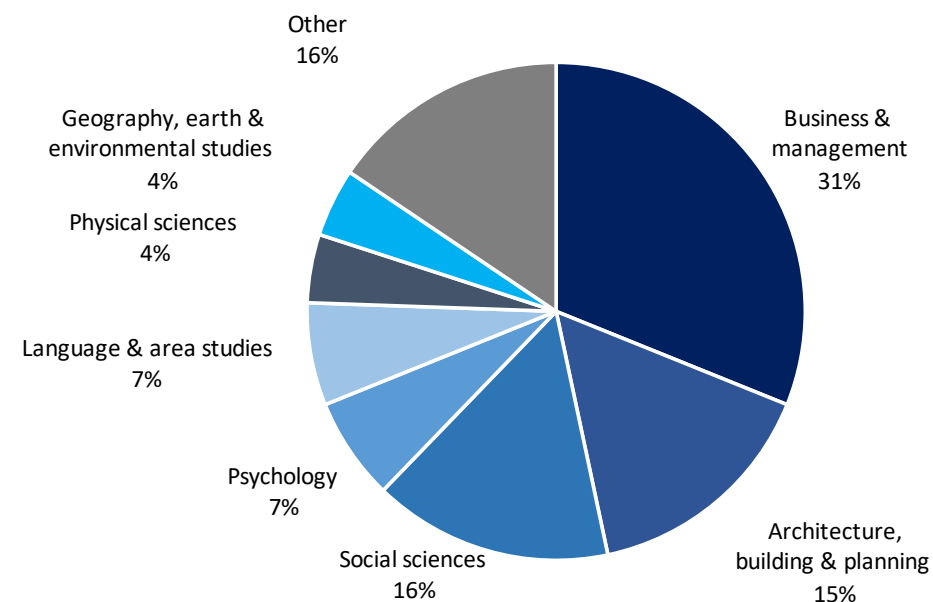


**Note:** Other includes; Physical Sciences, Language & Area Studies, Media, Journalism & Communications, Psychology, Historical, Philosophical & Religious Studies, Agriculture, Food & Related Studies, Design, & Creative & Performing Arts, Geography, Earth & Environmental Studies, Architecture, Building & Planning, Education & Teaching and Combined & General Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

Real estate sector (RQF level 6+) by graduate subject mix (15  
months after graduating), NI HEIs, 2021/22



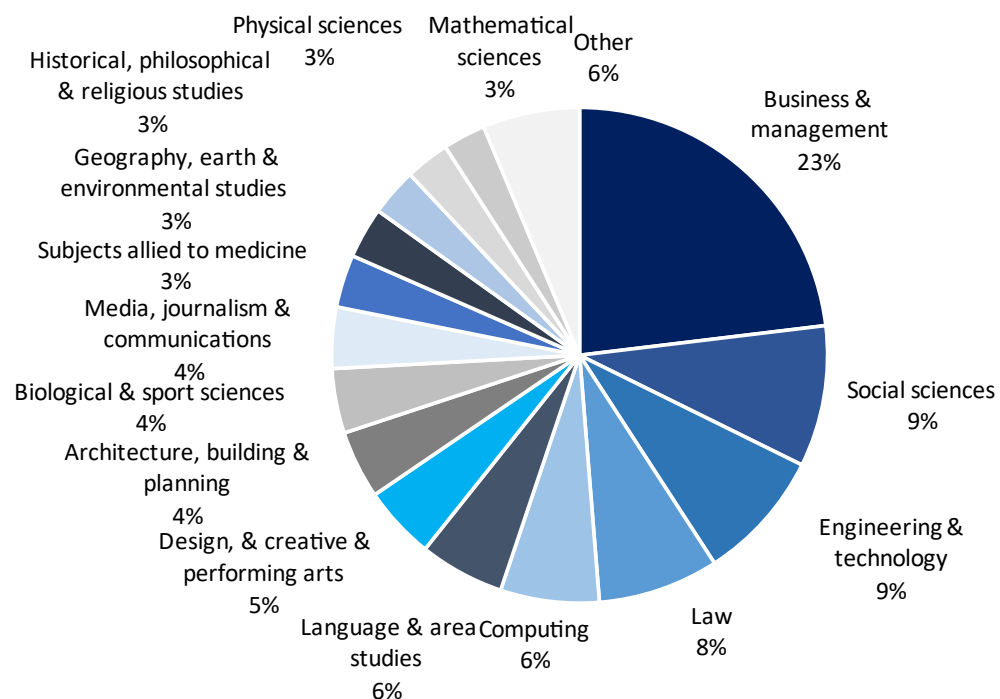
**Note:** Other includes; Subjects Allied to Medicine, Biological & Sports Sciences, Engineering & Technology, Law, Education & Teaching, Combined & General Studies and Design, & Creative & Performing Arts.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by sector (7)

**Professional, scientific & technical sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**

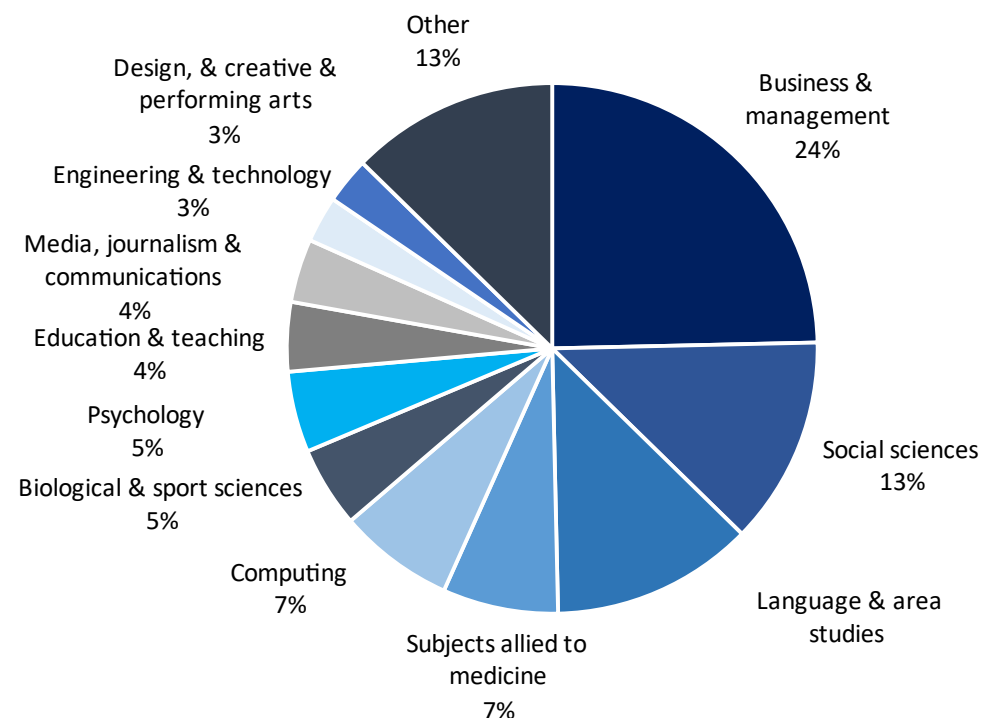


**Note:** Other includes; Psychology, Veterinary Sciences, Medicine & Dentistry, Agriculture, Food & Related Studies, Combined & General Studies and Education & Teaching,

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Admin' & support services sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**



**Note:** Other includes; Law, Historical, Philosophical & Religious Studies, Architecture, Building & Planning, Geography, Earth & Environmental Studies, Medicine & Dentistry, Agriculture, Food & Related Studies, Physical Sciences, Combined & General Studies and Mathematical Sciences.

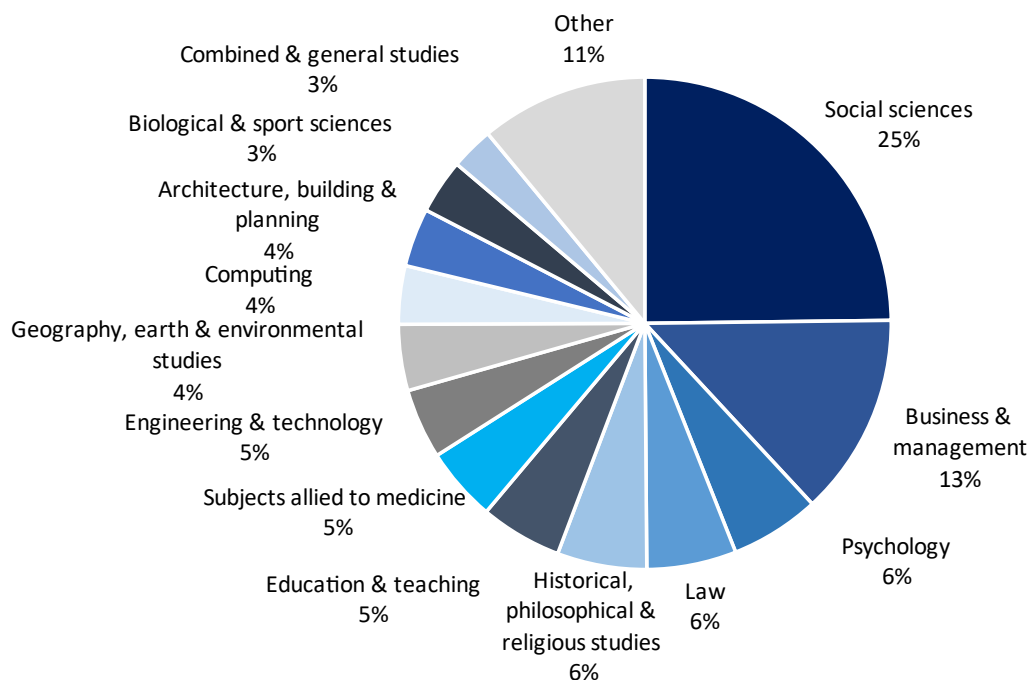
**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.



# Degree subject mix by sector (8)

**Public Admin' & Defence sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**

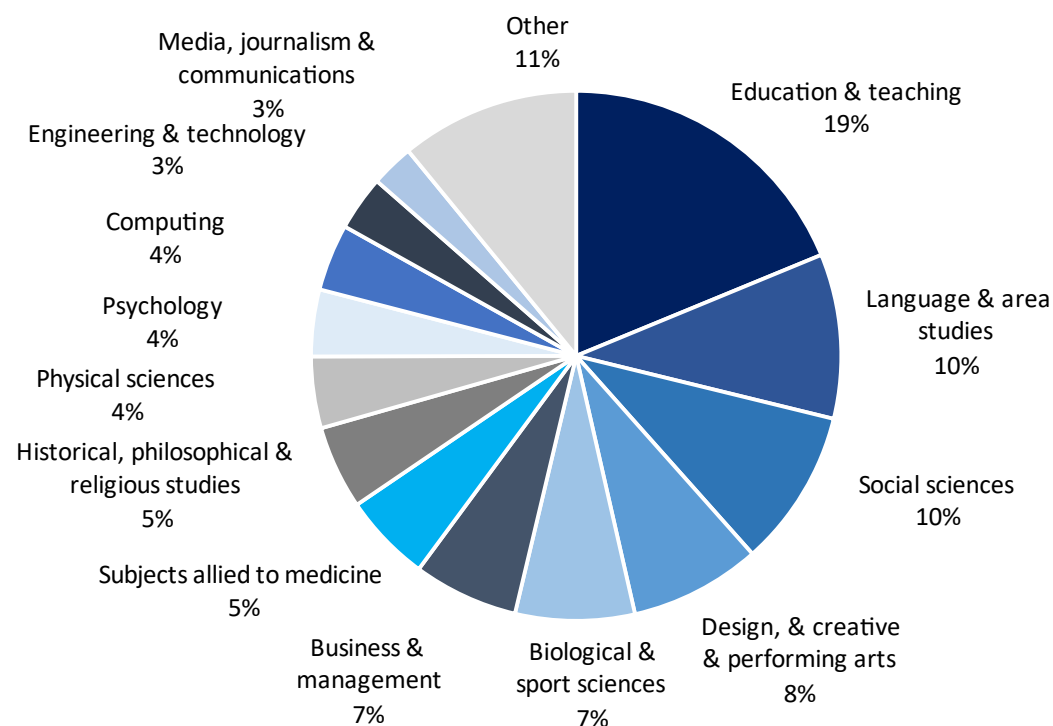


**Note:** Other includes; Media, Journalism & Communications, Design, & Creative & Performing Arts, Language & Area Studies, Mathematical Sciences, Physical Sciences and Agriculture, Food & Related Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Education sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22**



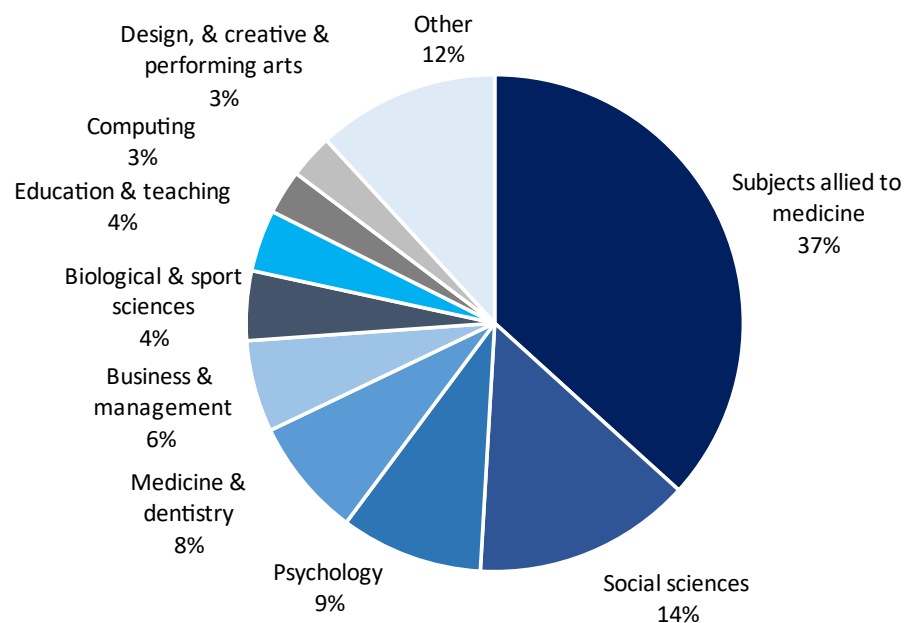
**Note:** Other includes; Geography, Earth & Environmental Studies, Law, Mathematical Sciences, Medicine & Dentistry, Agriculture, Food & Related Studies and Combined & General Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by sector (9)

**Health & social work sector (RQF level 6+) by graduate subject mix  
(15 months after graduating), NI HEIs, 2021/22**

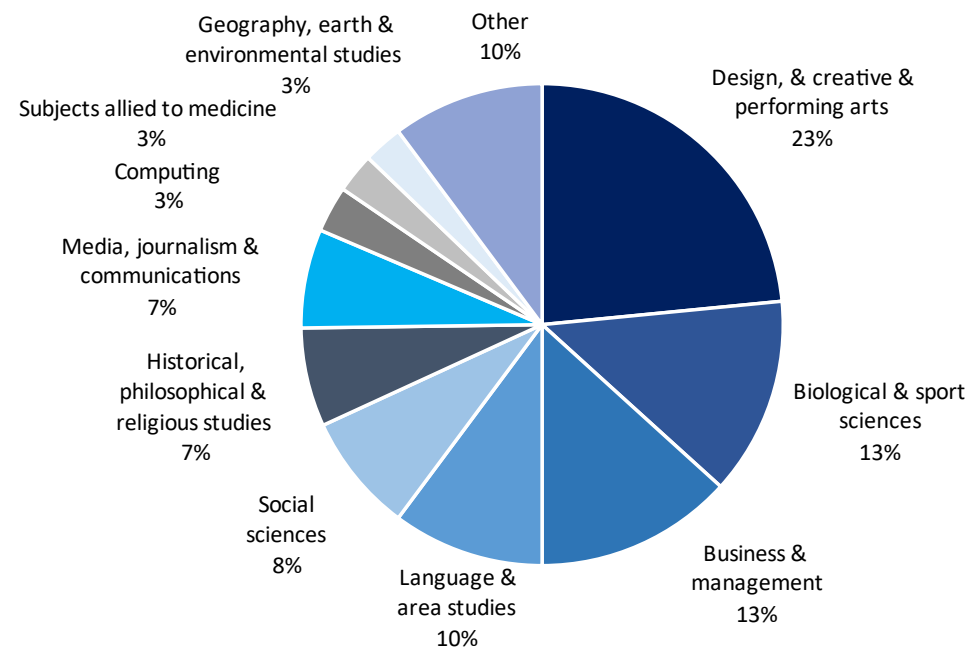


**Note:** Other includes; Languages & Area Studies, Law, Media, Journalism & Communications, Physical Sciences, Engineering & Technology, Historical, Philosophical & Religious Studies, Geography, Earth & Environmental Studies, Combined & General Studies, Mathematical Sciences and Architecture, Building & Planning.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Arts & entertainment sector (RQF level 6+) by graduate subject mix  
(15 months after graduating), NI HEIs, 2021/22**



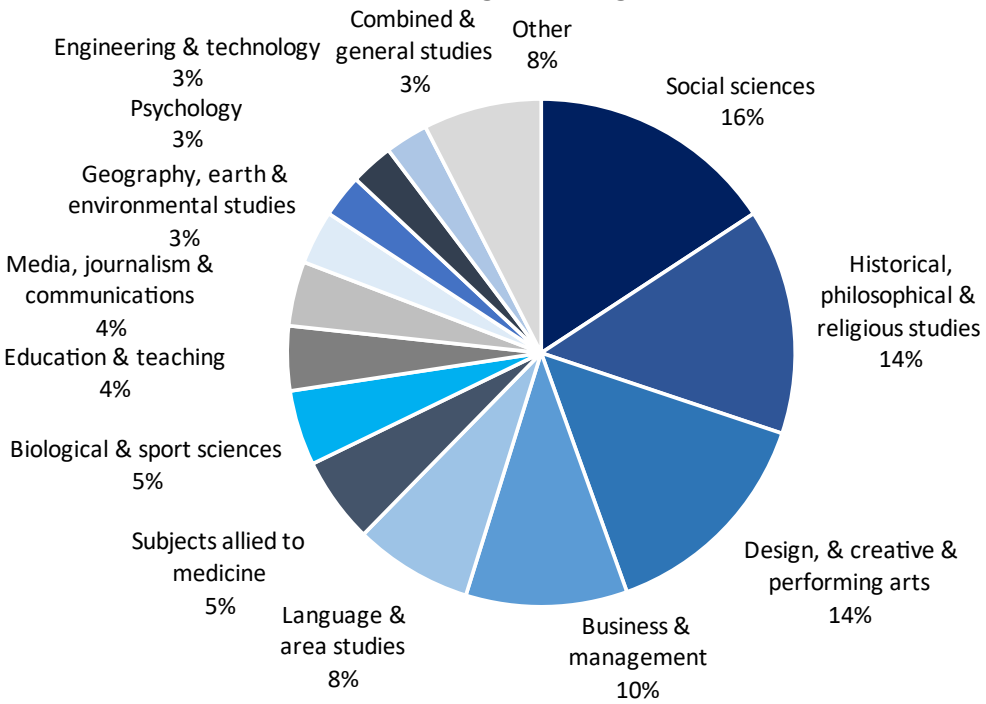
**Note:** Other includes; Psychology, Education & Teaching, Combined & General Studies, Engineering & Technology, Architecture, Building & Planning and Law.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by sector (10)

Other service activities sector (RQF level 6+) by graduate subject mix (15 months after graduating), NI HEIs, 2021/22



**Note:** Other includes; Mathematical Sciences, Computing, Law, Physical Sciences and Architecture, Building & Planning.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.



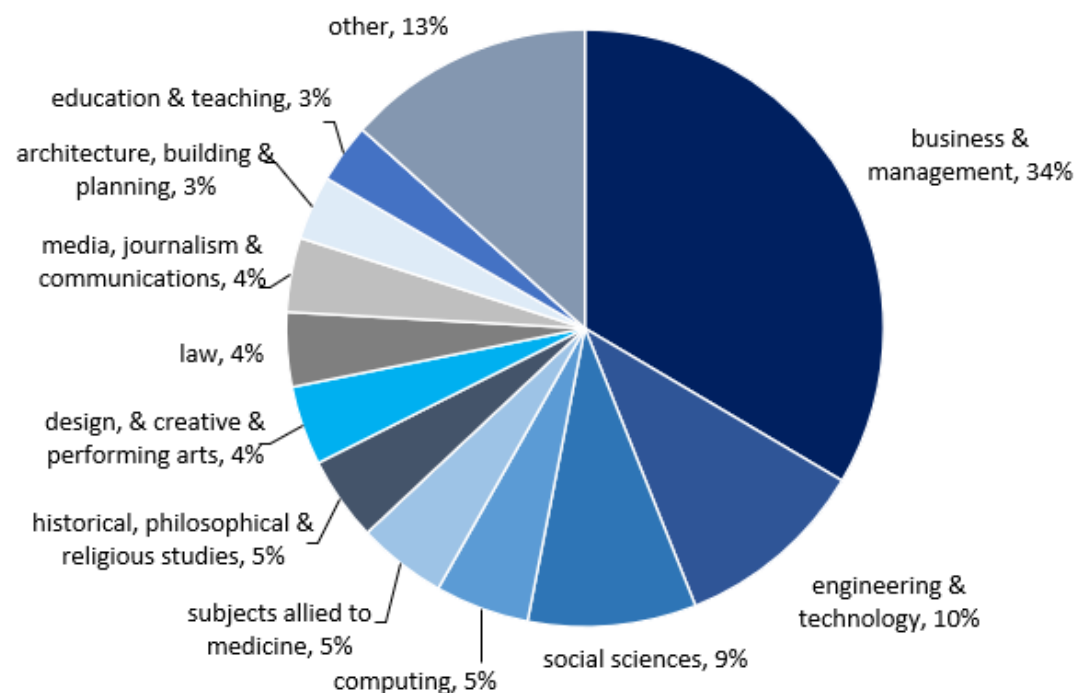


## **Annex C2 – What occupations do graduates have? (15 months after graduation)**



# Degree subject mix by occupation (1)

**Corporate management and directors by subject, NI HEIs, 2021/22**

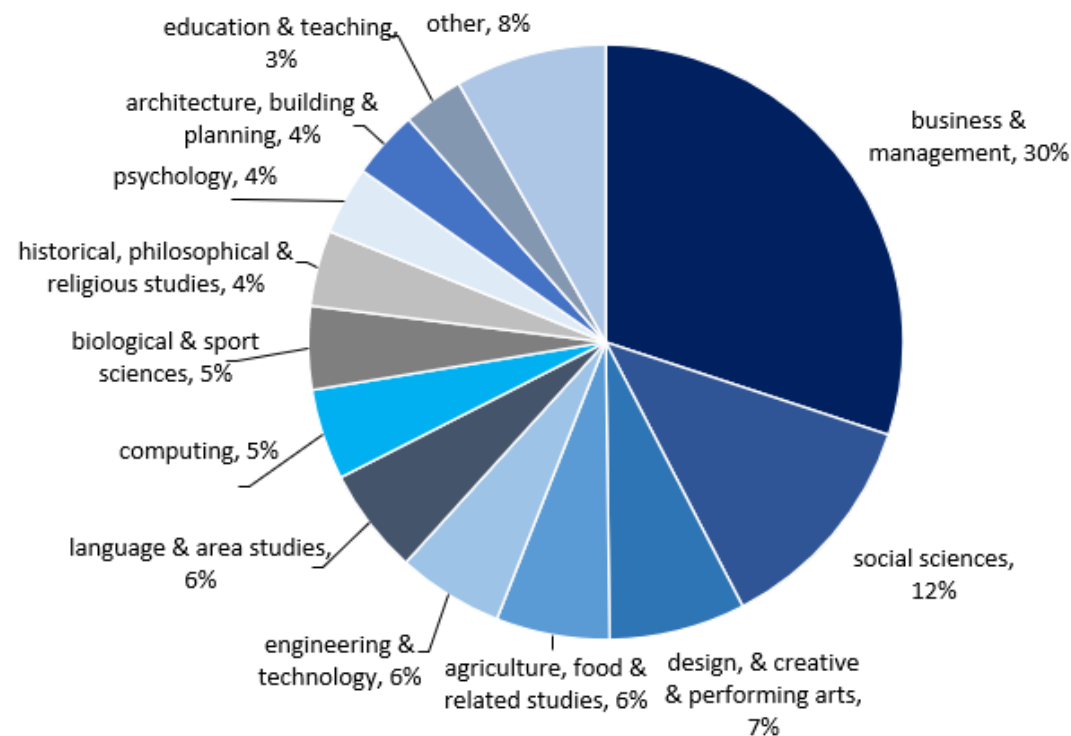


**Note:** Other includes; Languages & Area Studies, Combined & General Studies, Biological & Sports Sciences, Psychology, Agriculture, Food & Related Studies, Geography, Earth & Environmental Studies, Physical Sciences, Mathematical Sciences, and Medicine & Dentistry.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Other managers and proprietors by subject, NI HEIs, 2021/22**



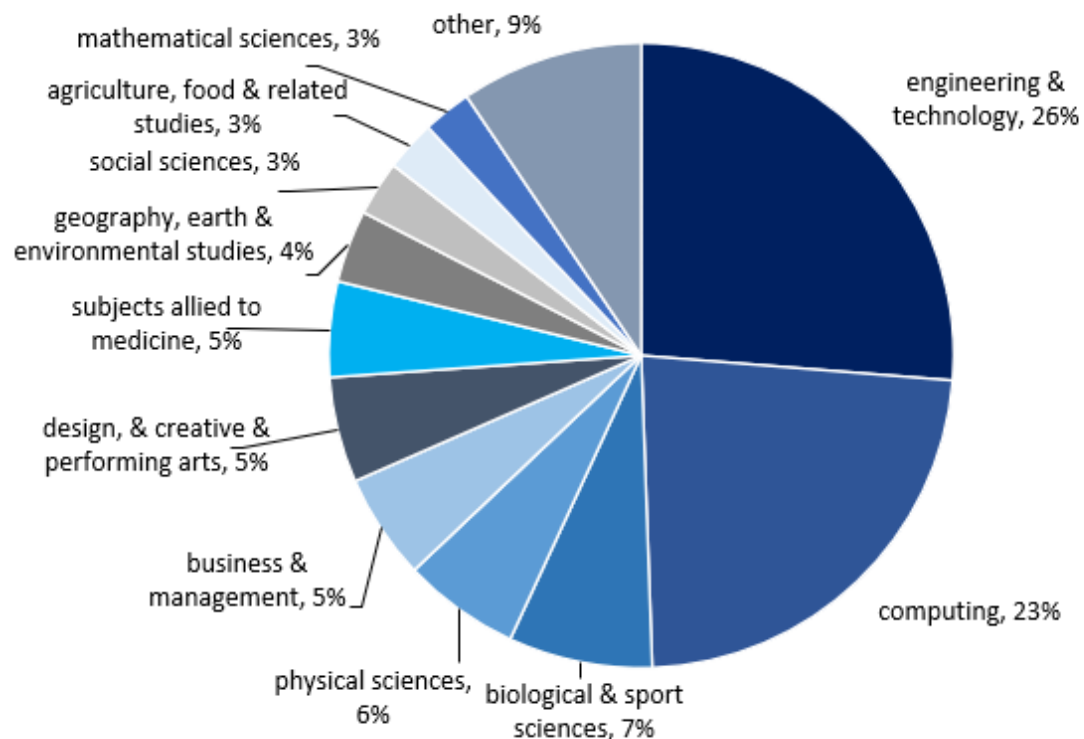
**Note:** Other includes; Law, Subjects Allied to Medicine, Combined & General Studies, Media, Journalism & Communications, Geography, Earth & Environmental Studies, Physical Sciences, and Mathematical Sciences.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by occupation (2)

**Science, research, engineering and technology professionals  
by subject, NI HEIs, 2021/22**

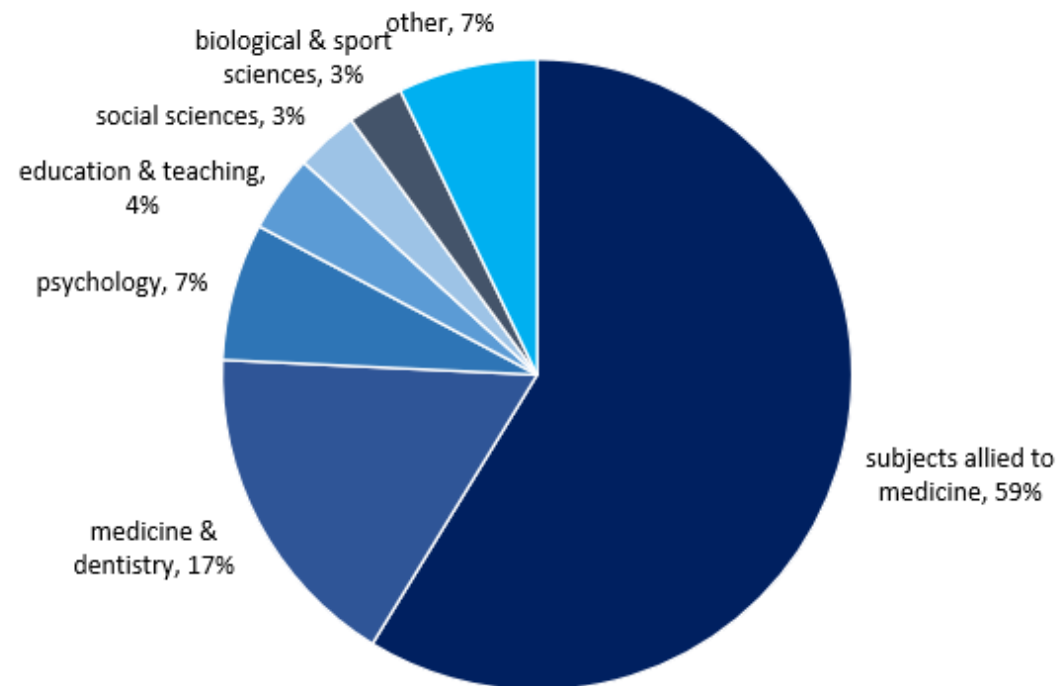


**Note:** Other includes; Architecture, Building & Planning, Medicine & Dentistry, Media, Journalism & Communications, Psychology, Historical, Philosophical & Religious Studies, Language & Area Studies, Education & Teaching, Combined & General Studies, Law, and Veterinary Sciences.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Health professionals by subject, NI HEIs, 2021/22**



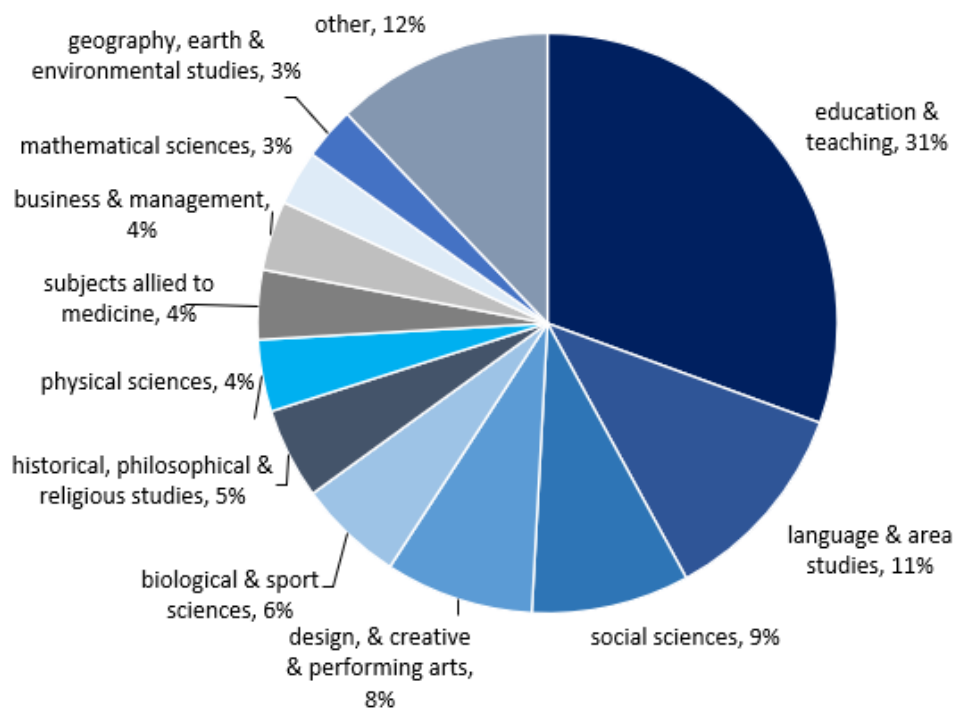
**Note:** Other includes; Veterinary Sciences, Design, & Creative & Performing Arts, Physical Sciences, Computing, Business & Management, Law, Language & Area Studies, Historical, Philosophical & Religious Studies, Combined & General Studies, Engineering & Technology, and Agriculture, Food & Related Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by occupation (3)

Teaching and other educational professionals by subject,  
NI HEIs, 2021/22

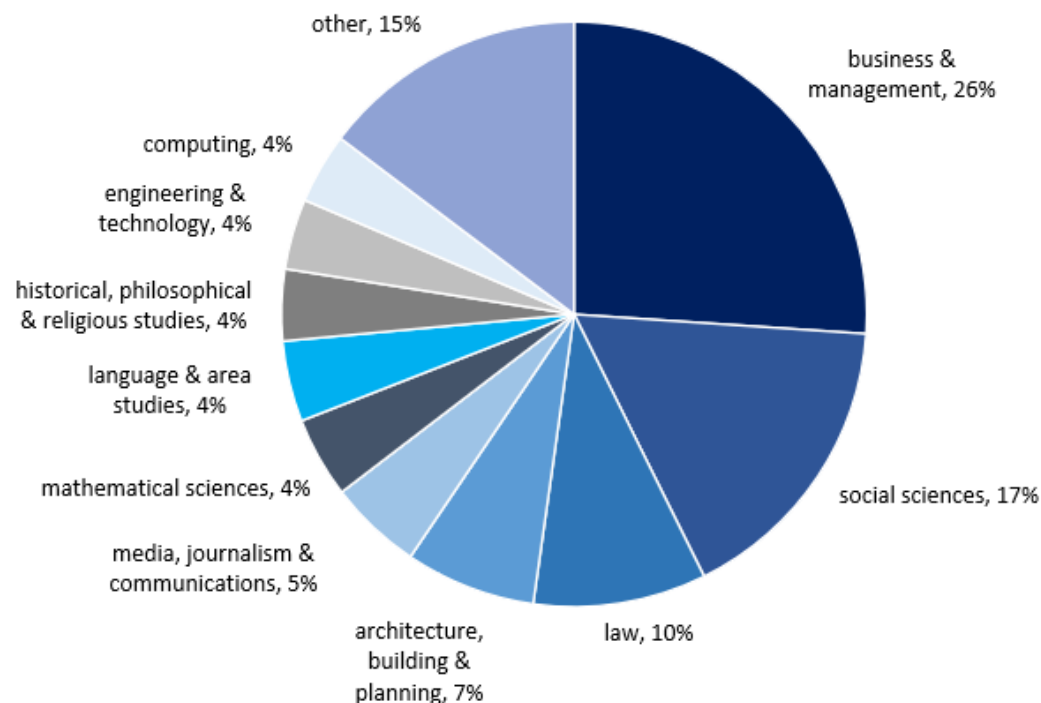


**Note:** Other includes; Psychology, Combined & General Studies, Computing, Engineering & Technology, Agriculture, Food & Related Studies, Law, Media, Journalism & Communications, Architecture, Building & Planning, Medicine & Dentistry, and Veterinary Sciences.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

Business, media and public service professionals by subject,  
NI HEIs, 2021/22



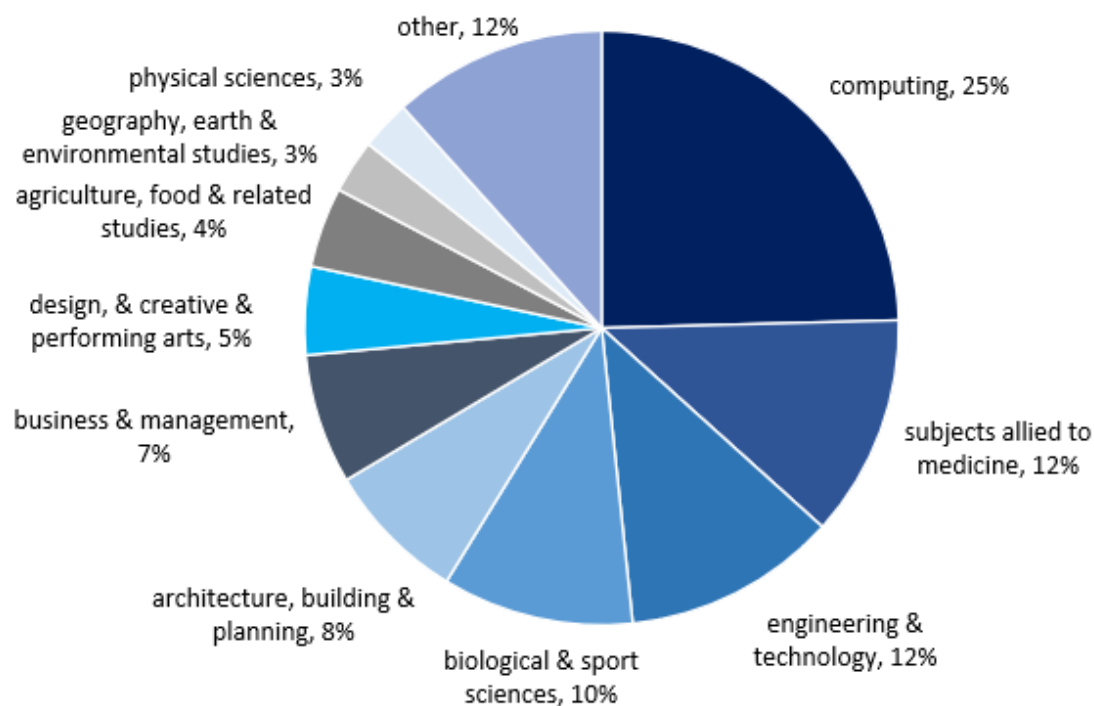
**Note:** Other includes; Design, & Creative & Performing Arts, Physical Sciences, Subjects Allied to Medicine, Psychology, Biological & Sport Sciences, Education & Teaching, Geography, Earth & Environmental Studies, Agriculture, Food & Related Studies, Medicine & Dentistry, and Combined & General Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by occupation (4)

**Science, engineering and technology associate professionals by subject, NI HEIs, 2021/22**

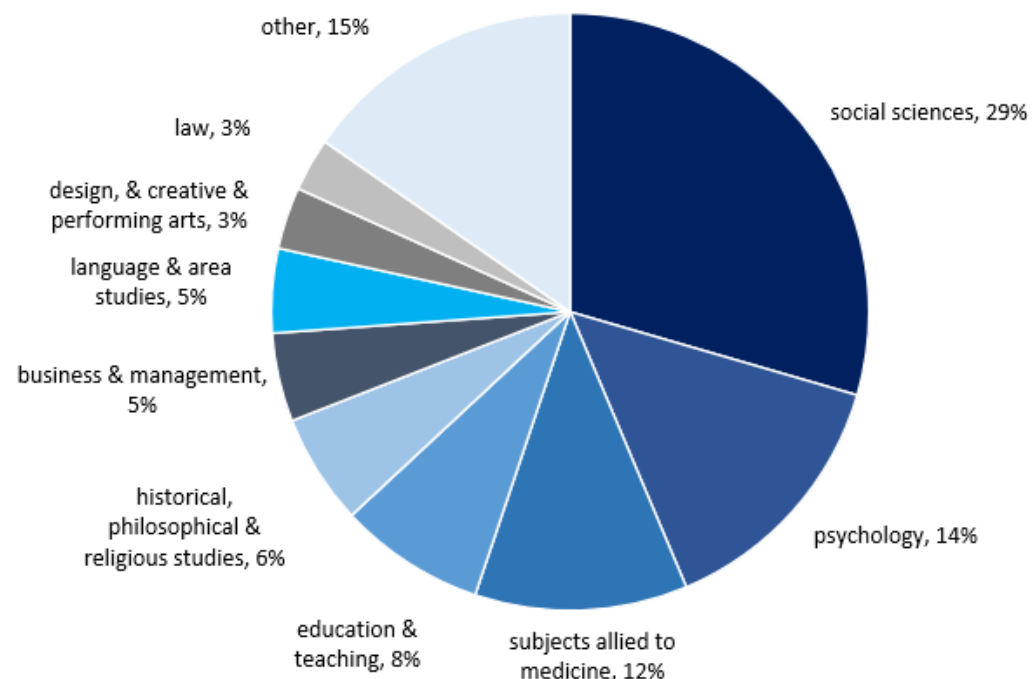


**Note:** Other includes; Language & Area Studies, Media, Journalism & Communication, Psychology, Social Sciences, Medicine & Dentistry, Mathematical Sciences, Education & Teaching, Combined & General Studies, and Historical, Philosophical & Religious Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Health and social care associate professionals by subject, NI HEIs, 2021/22**



**Note:** Other includes; Biological & Sports Sciences, Veterinary Sciences, Engineering & Technology, Geography, Earth & Environmental Studies, Combined & General Studies, Media, Journalism & Communications, Agriculture, Food & Related Studies, Mathematical Sciences, Medicine & Dentistry, Computing, Architecture, Building & Planning, and Physical Sciences.

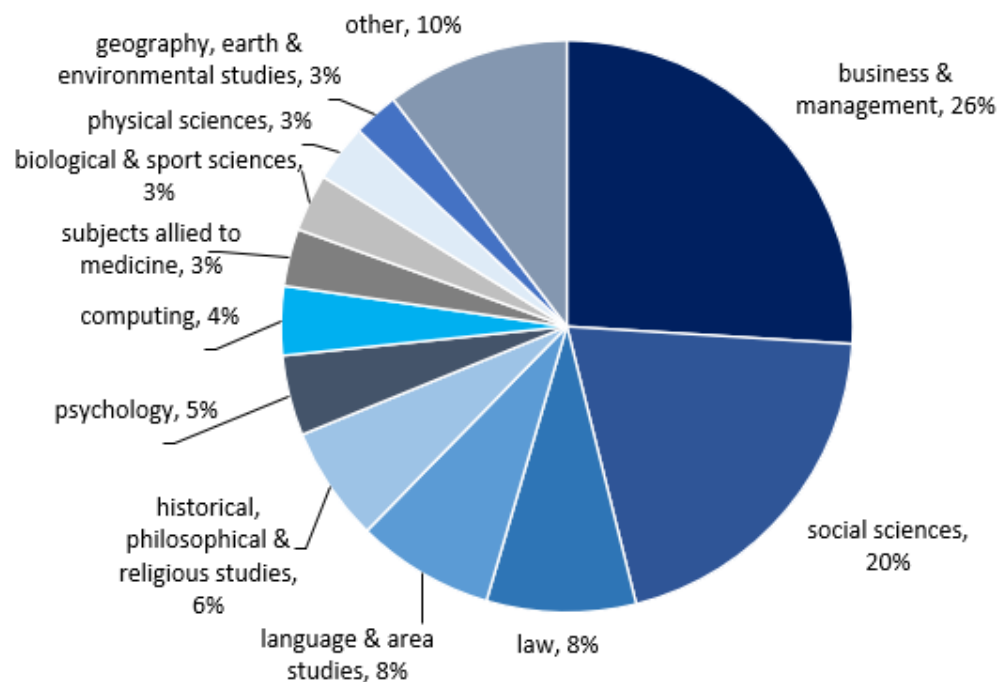
**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.



# Degree subject mix by occupation (5)

**Protective service occupations by subject, NI HEIs, 2021/22**

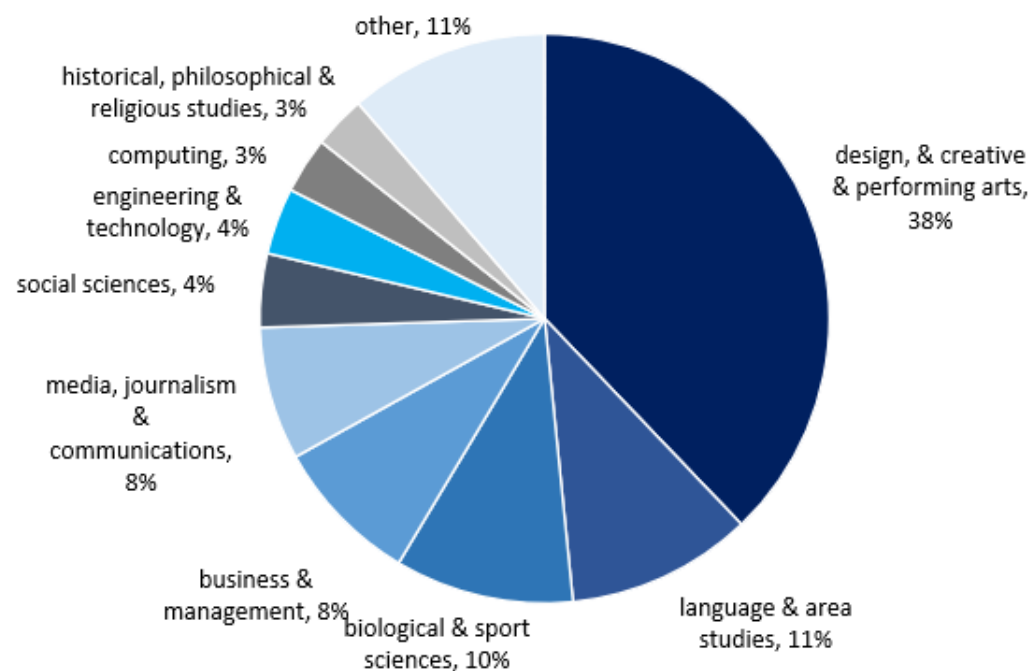


**Note:** Other includes; Engineering & Technology, Education & Teaching, Combined & General Studies, Media, Journalism & Communications, Medicine & Dentistry, Mathematical Sciences, Architecture, Building & Planning, and Design, & Creative & Performing Arts.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Culture, media and sports occupations by subject, NI HEIs, 2021/22**



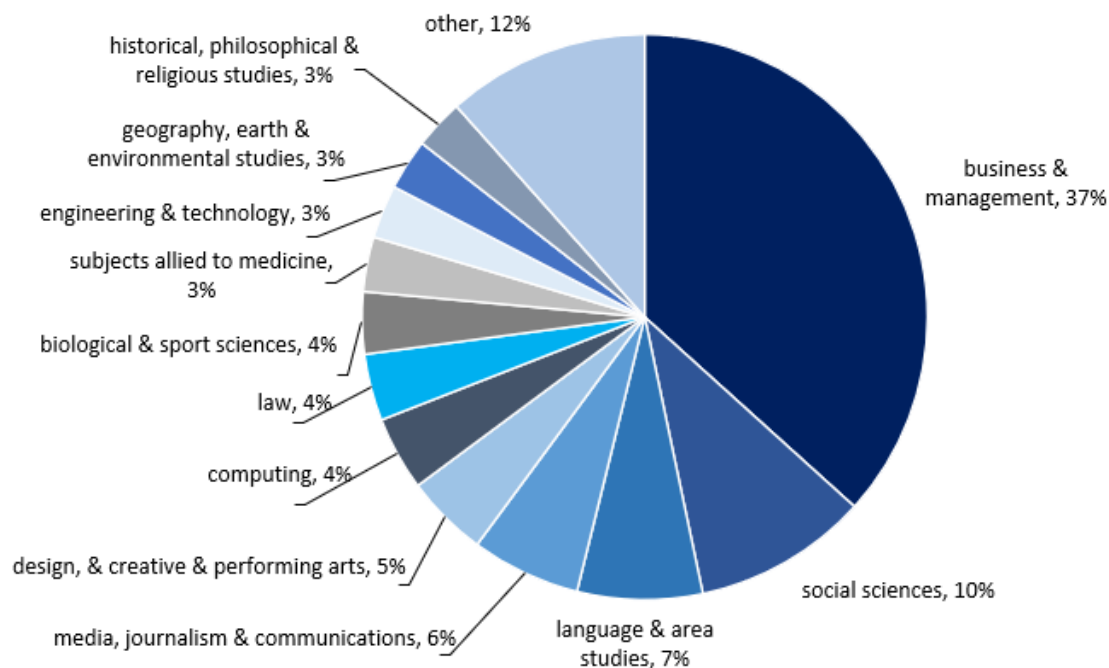
**Note:** Other includes; Education & Teaching, Subjects Allied to Medicine, Psychology, Architecture, Building & Planning, Law, Medicine & Dentistry, Physical Sciences, Geography, Earth & Environmental Studies, Agriculture, Food & Related Studies, Mathematical Sciences, and Combined & General Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by occupation (6)

**Business and public service associate professionals by subject, NI HEIs, 2021/22**

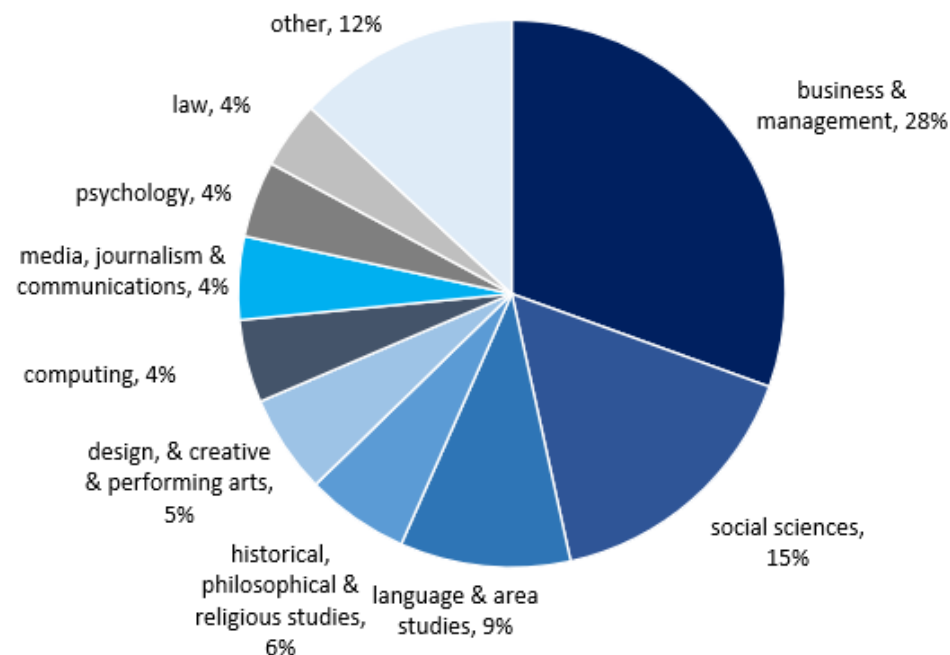


**Note:** Other includes; Mathematical Sciences, Psychology, Architecture, Building & Planning, Education & Teaching, Agriculture, Food & Related Sciences, Physical Sciences, Combined & General Studies, Medicine & Dentistry, and Veterinary Sciences.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Administrative occupations by subject, NI HEIs, 2021/22**



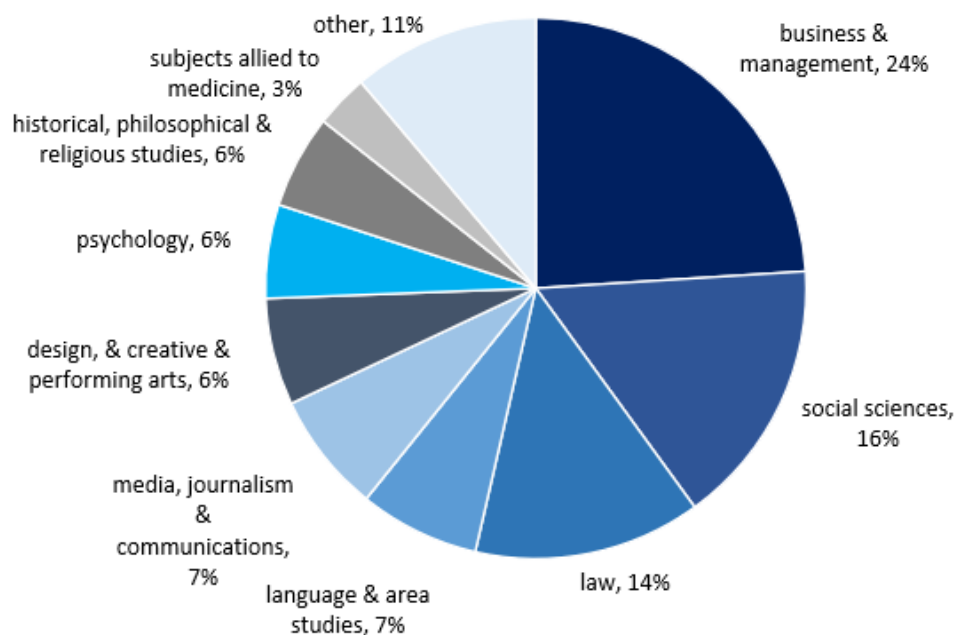
**Note:** Other includes; Engineering & Technology, Architecture, Building & Planning, Combined & General Studies, Education & Teaching, Agriculture, Food & Related Studies, Physical Sciences, Mathematical Sciences, and Medicine & Dentistry.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by occupation (7)

Secretarial and related occupations by subject, NI HEIs, 2021/22

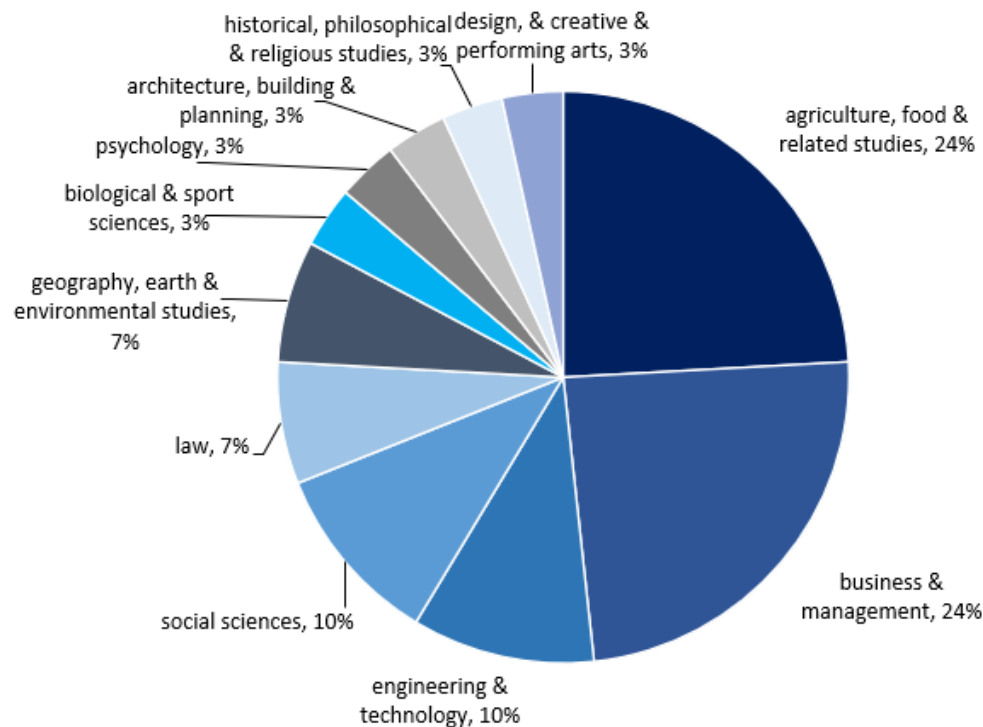


**Note:** Other includes; Biological & Sports Sciences, Combined & General Studies, Geography, Earth & Environmental Studies, Agriculture, Food & Related Studies, Physical Sciences, Engineering & Technology, Computing, and Education & Teaching.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

Skilled agricultural and related trades by subject, NI HEIs, 2021/22

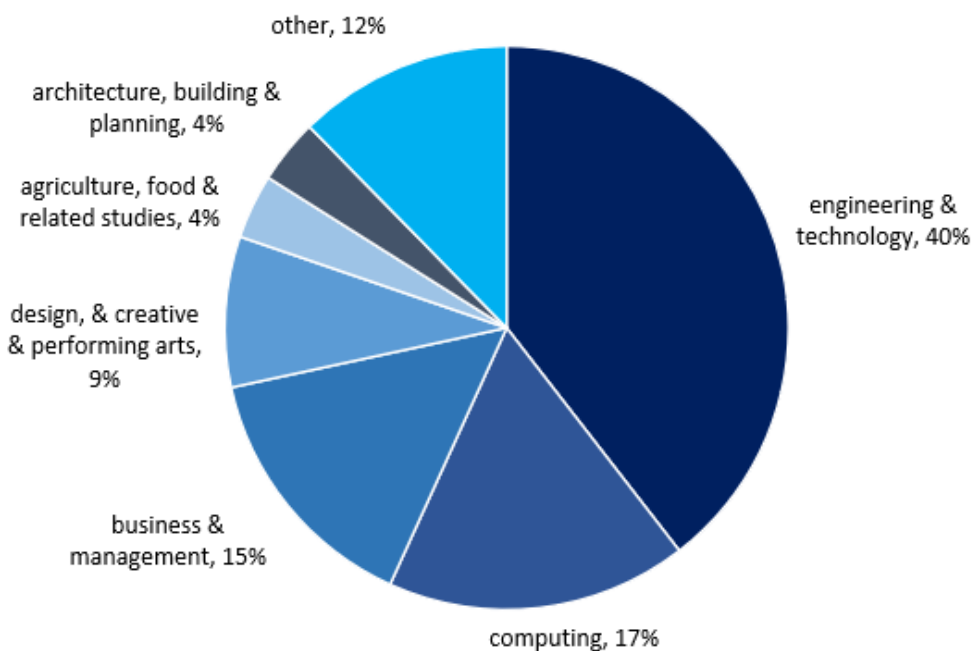


**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by occupation (8)

**Skilled metal, electrical and electronic trades by subject, NI HEIs, 2021/22**

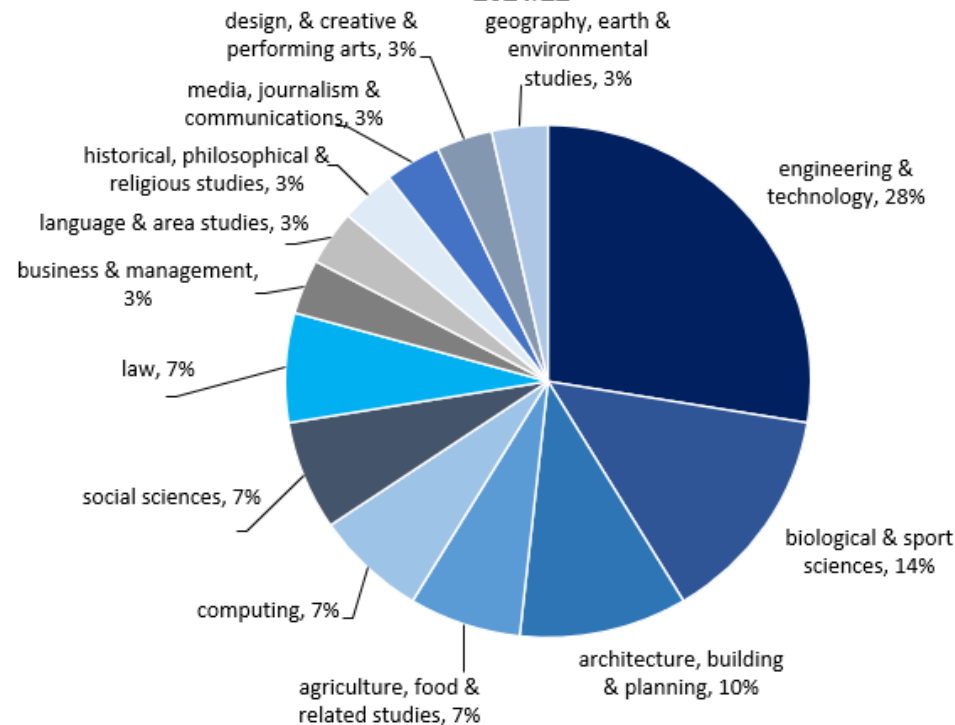


**Note:** Other includes; Biological & Sports Sciences, Historical, Philosophical & Religious Studies, Combined & General Studies, Media, Journalism & Communications, and Geography, Earth & Environmental Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Skilled construction and building trades by subject, NI HEIs, 2021/22**



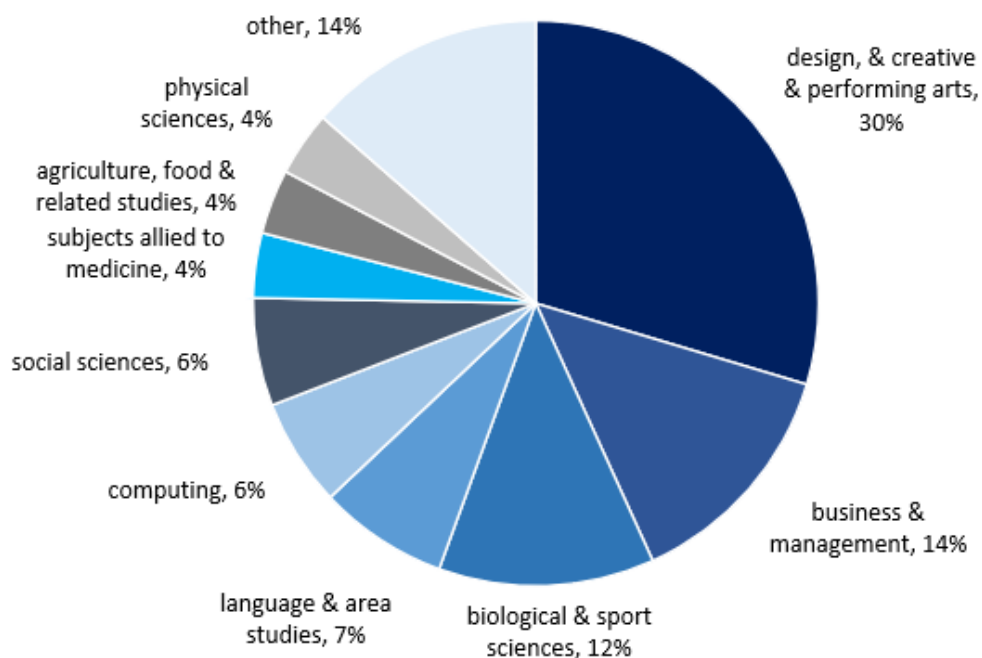
**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.



# Degree subject mix by occupation (9)

Textiles, printing and other skilled trades by subject, NI HEIs, 2021/22

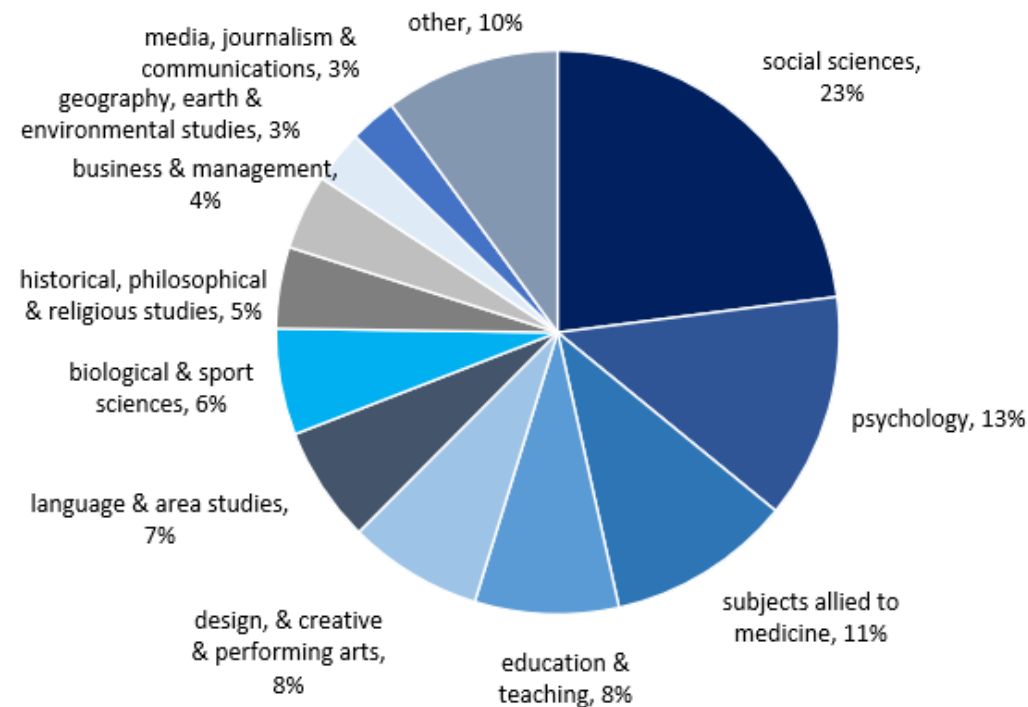


**Note:** Other includes; Mathematical Sciences, Historical, Philosophical & Religious Studies, Veterinary Sciences, Engineering & Technology, Architecture, Building & Planning, Law, Education & Teaching, Media, Journalism & Communications, and Geography, Earth & Environmental Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

Caring personal service occupations by subject, NI HEIs, 2021/22



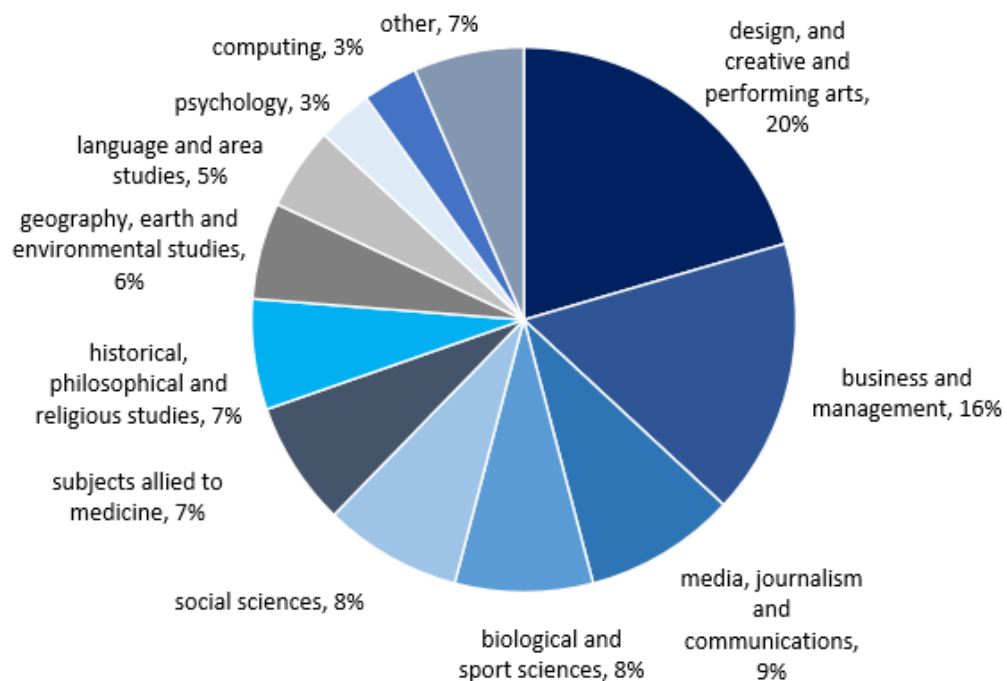
**Note:** Other includes; Combined & General Studies, Agriculture, Food & Related Studies, Physical Sciences, Engineering & Technology, Computing, Law, Medicine & Dentistry, Architecture, Building & Planning, and Mathematical Sciences.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by occupation (10)

Leisure, travel and related personal service occupations by subject, NI HEIs, 2021/22

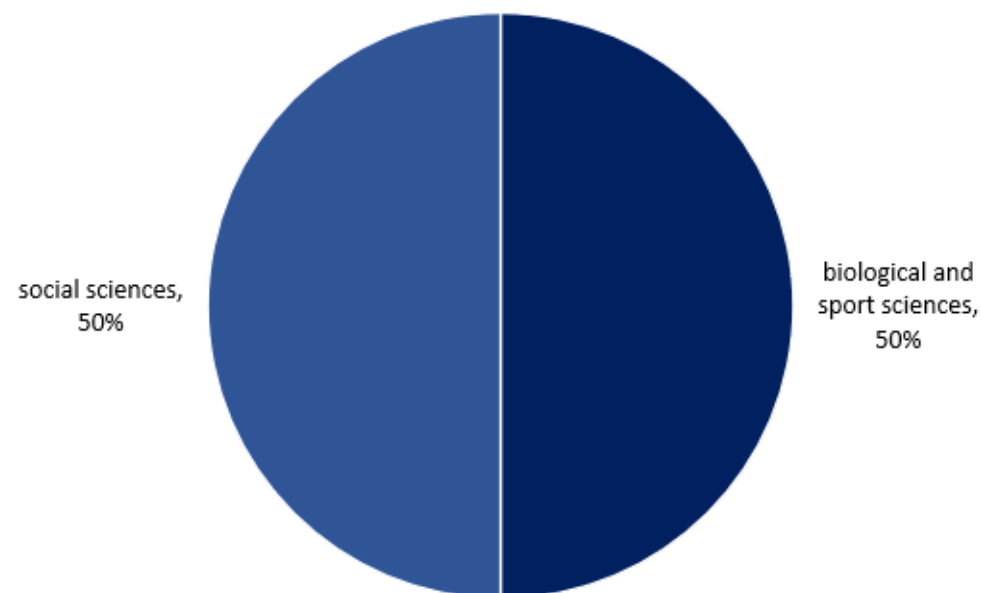


**Note:** Other includes; Education & Teaching, Mathematical Sciences, Engineering & Technology, Architecture, Building & Planning, Law, and Combined & General Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

Community and civil enforcement occupations by subject, NI HEIs, 2021/22

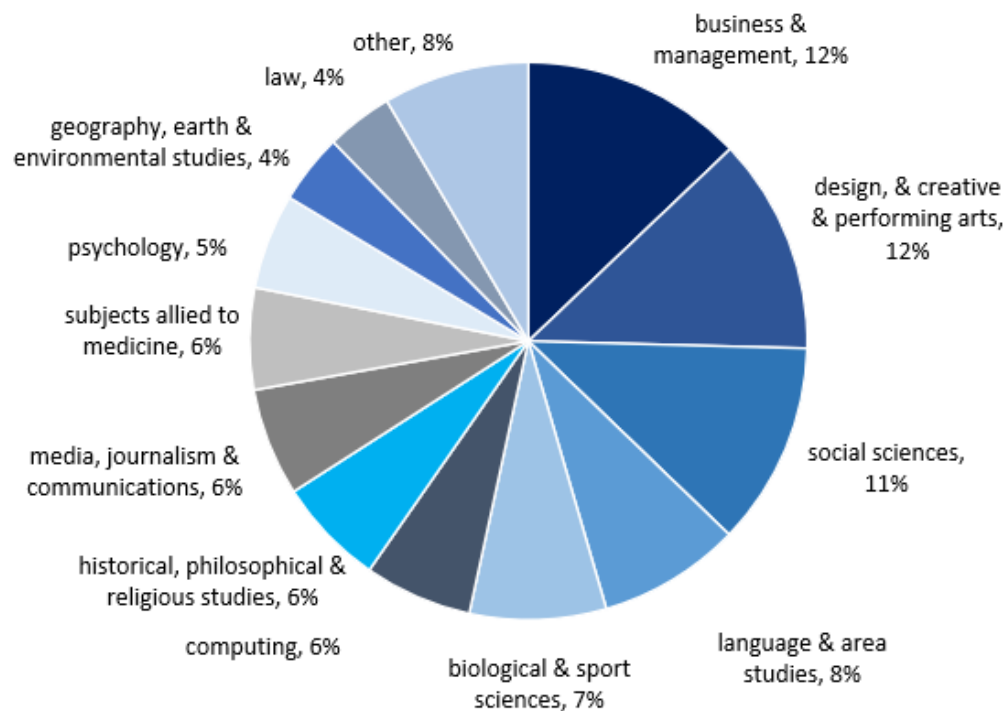


**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by occupation (11)

Sales occupations by subject, NI HEIs, 2021/22

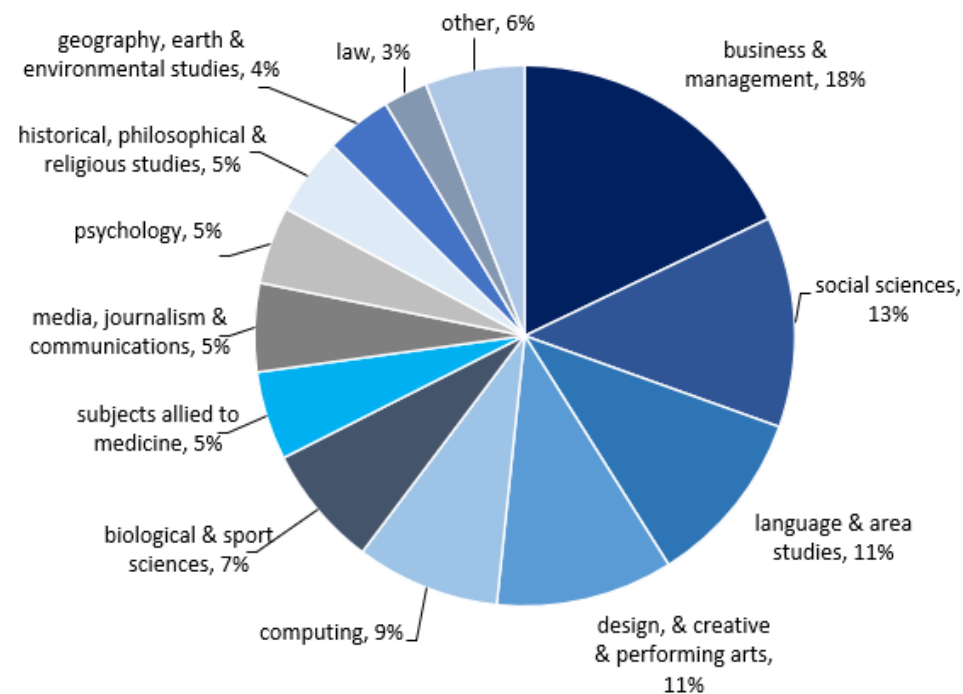


**Note:** Other includes; Agriculture, Food & Related Studie, Combined & General Studies, Mathematical Sciences, Physical Sciences, and Medicine & Dentistry.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

Customer service occupations by subject, NI HEIs, 2021/22



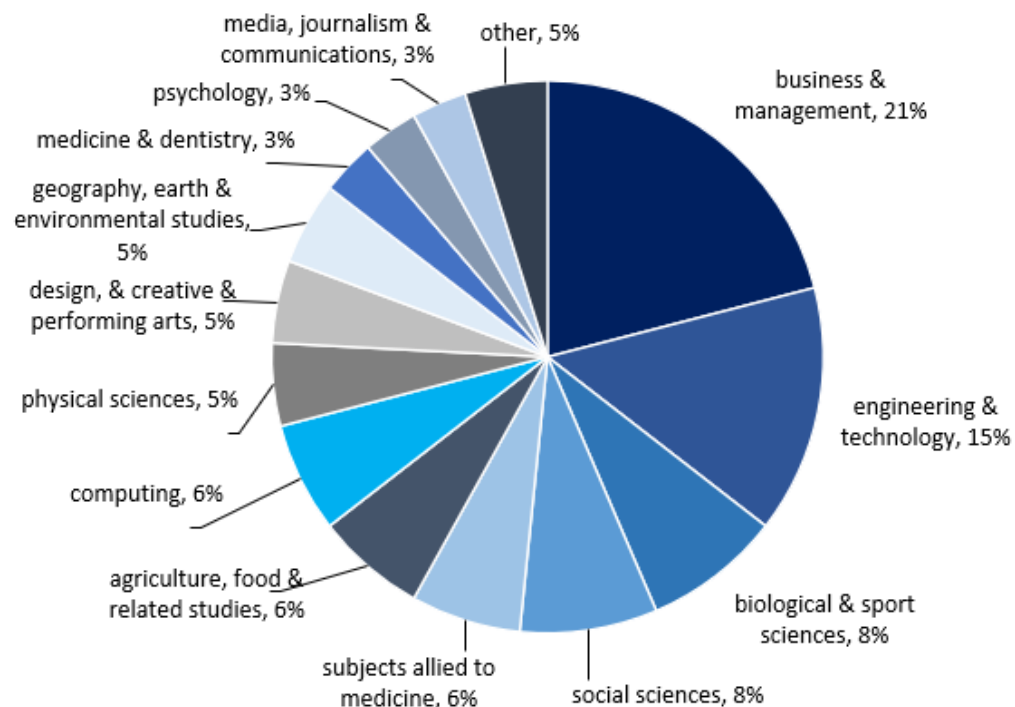
**Note:** Other includes; Education & Teaching, Agriculture, Food & Related Studies, Mathematical Sciences, and Architecture, Building & Planning.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

# Degree subject mix by occupation (12)

**Process, plant and machine operatives by subject, NI HEIs, 2021/22**

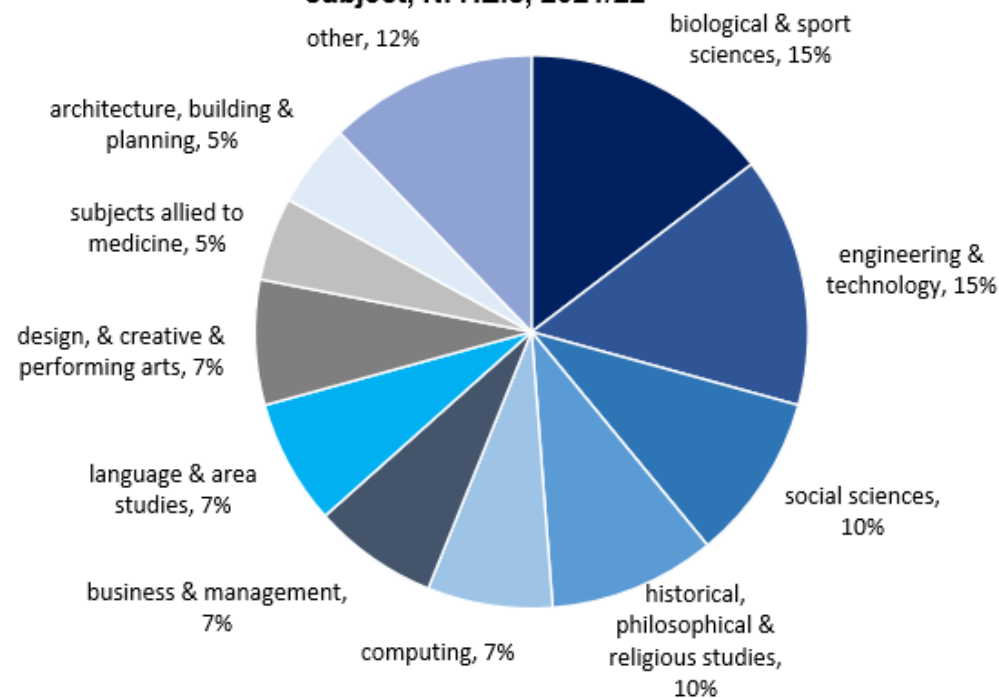


**Note:** Other includes; Architecture, Building & Planning, Language & Area Studies, and Historical, Philosophical & Religious Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

**Transport and mobile machine drivers and operatives by subject, NI HEIs, 2021/22**



**Note:** Other includes; Agriculture, Food & Related Sciences, Law, Education & Teaching, Combined & General Studies, and Geography, Earth & Environmental Studies.

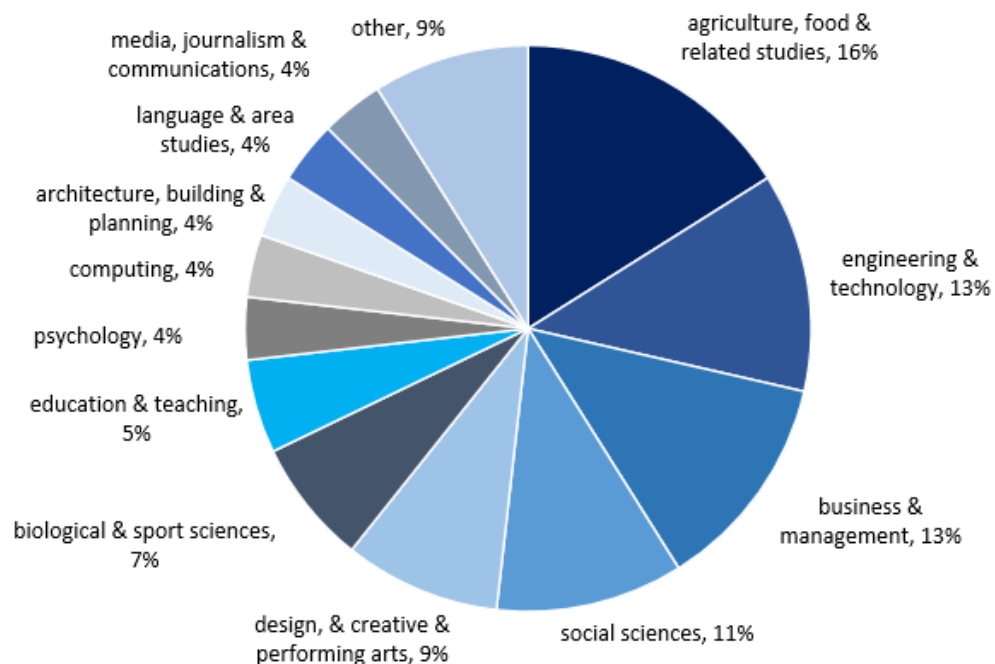
**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.



# Degree subject mix by occupation (13)

Elementary trades and related occupations by subject, NI HEIs, 2021/22

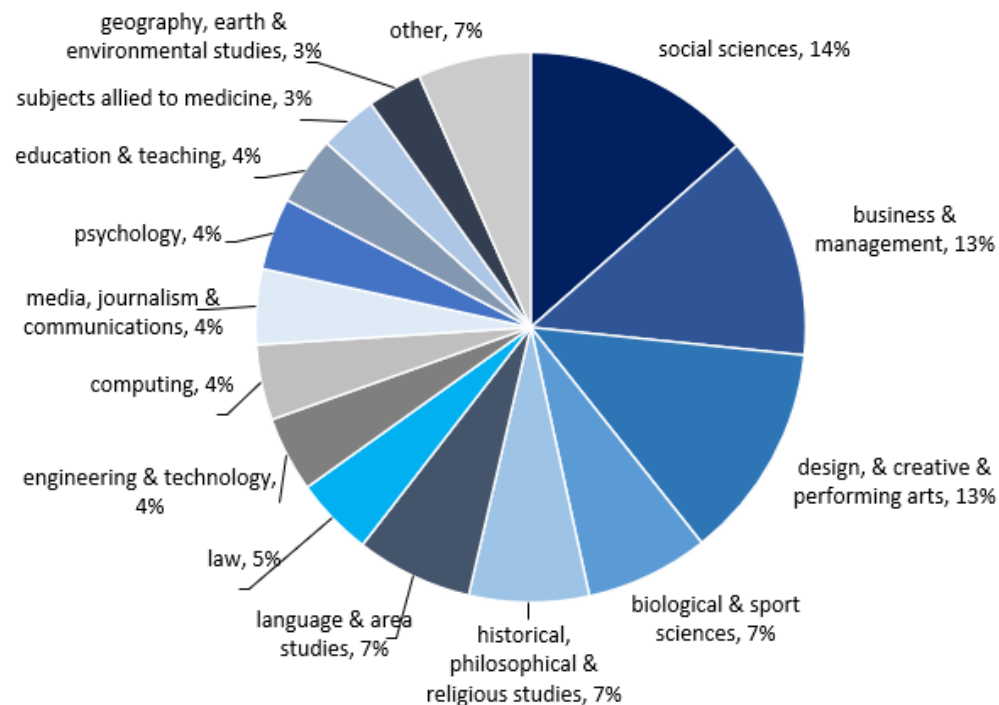


**Note:** Other includes; Subjects Allied to Medicine, Veterinary Sciences, Mathematical Sciences, and Historical, Philosophical & Religious Studies.

**Source:** Graduate Outcomes, HESA

**Note:** Figures may not sum due to rounding.

Elementary administration and service occupations by subject, NI HEIs, 2021/22



**Note:** Other includes; Agriculture, Food & Related Sciences, Physical Sciences, Architecture, Building & Planning, Combined & General Studies, Mathematical Sciences, Medicine & Dentistry, and Veterinary Sciences.

**Source:** Graduate Outcomes, HESA

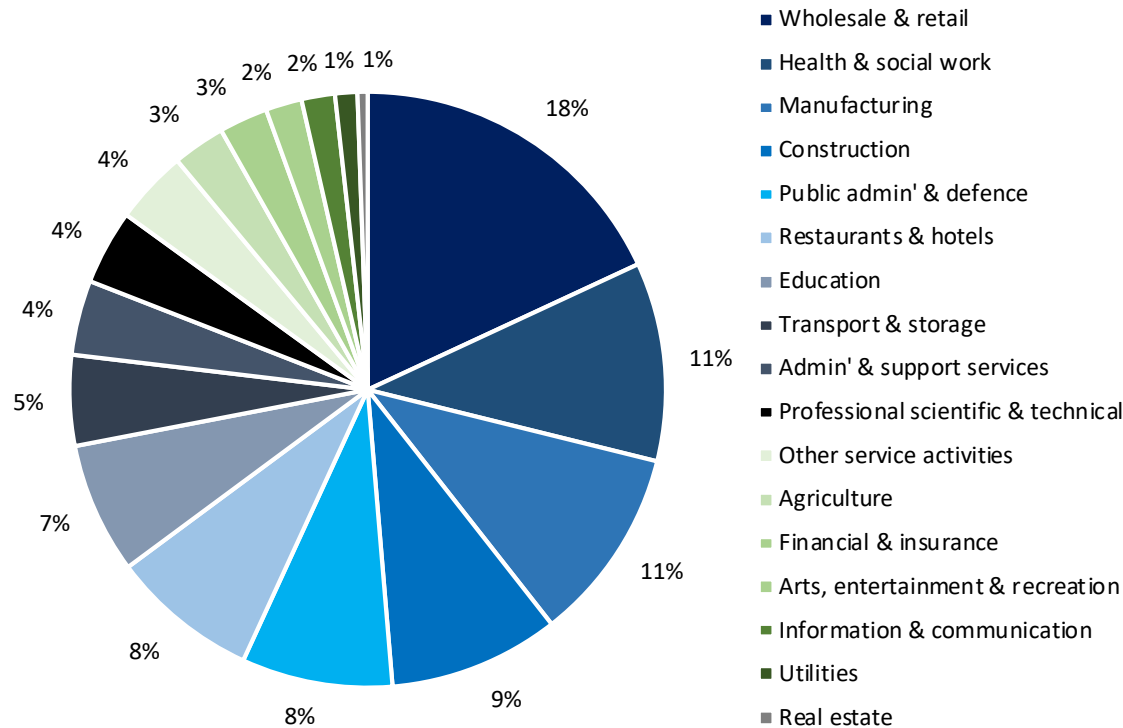
**Note:** Figures may not sum due to rounding.



## **Annex D1 – RQF level 3 and below demand side outputs (high growth)**

# Stock of RQF level 3 and below in the labour market

Highest qualification RQF level 3 or below by sector (1-digit), NI, 2023

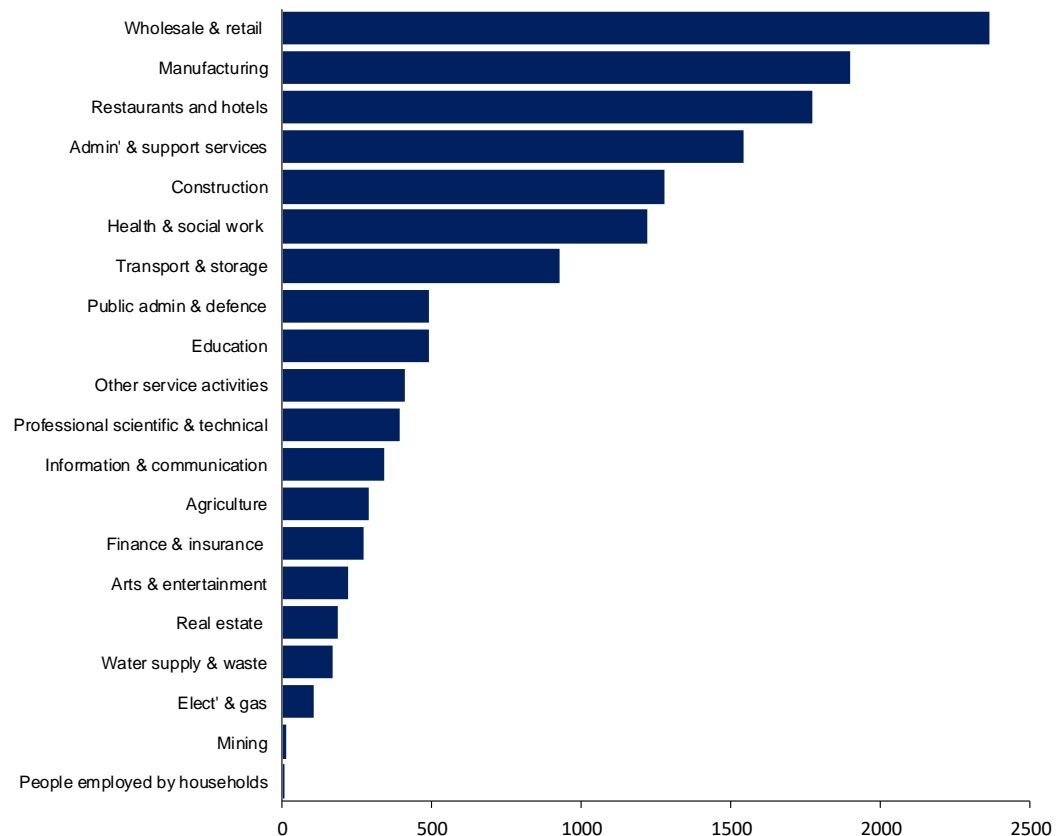


Source: Labour Force Survey



# Net requirement (RQF level 3 and below) by sector

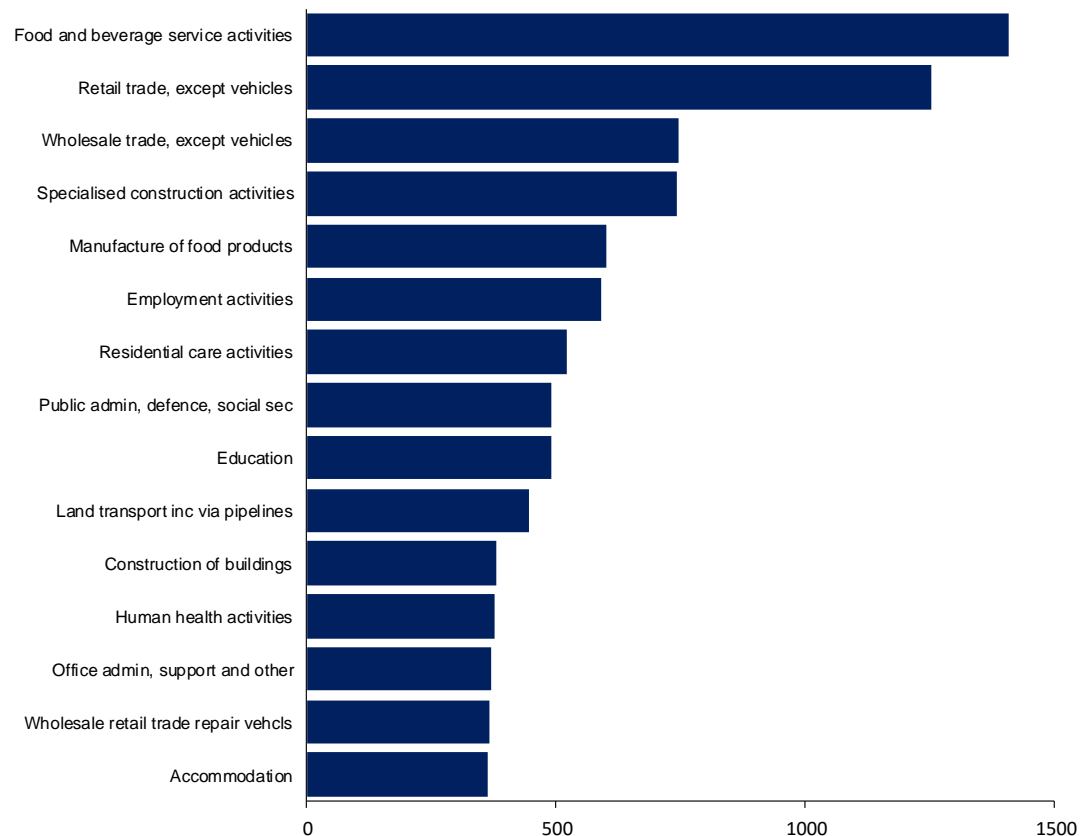
**Average annual RQF level 3 and below net requirement by sector  
(1 digit), NI (2023-2033)**



Average annual net requirement (2023-2033)

Source: UUEPC

**Average annual RQF level 3 and below net requirement by sector  
(top 15, 2 digit), NI (2023-2033)**



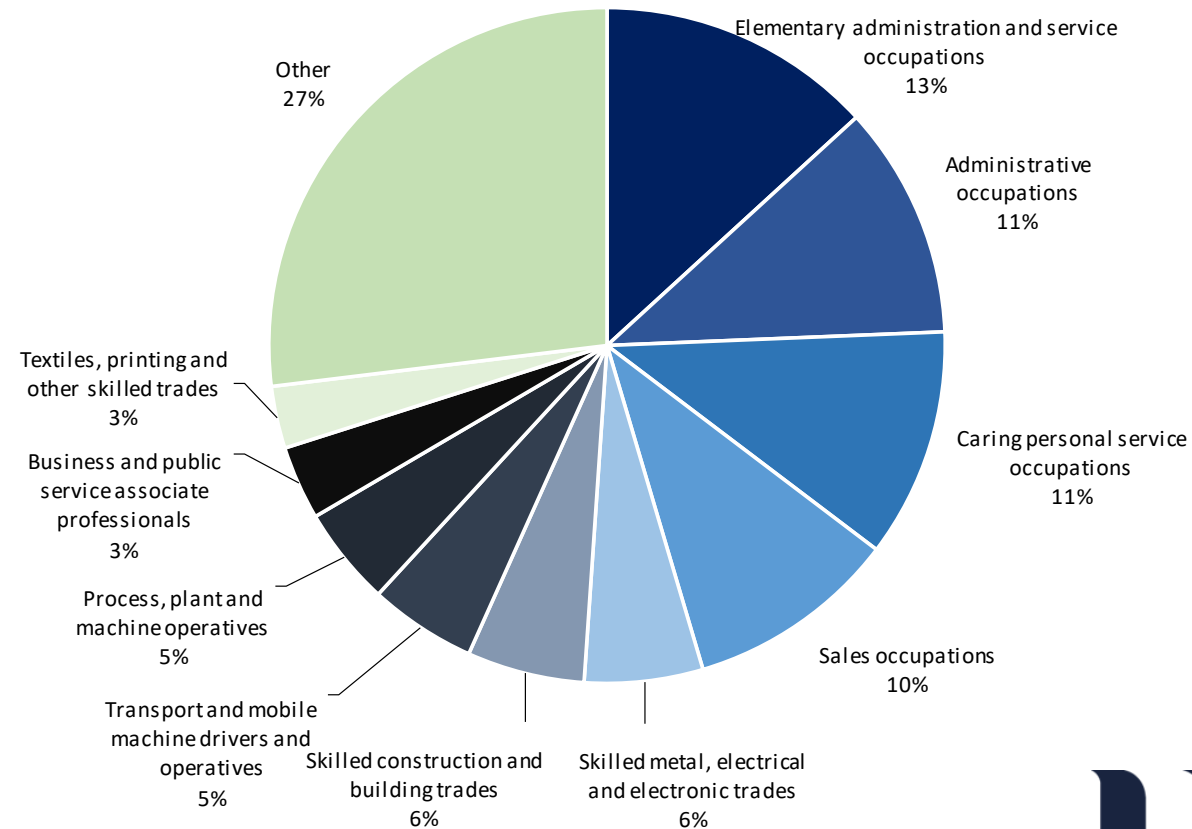
Average annual net requirement (2023-2033)

Source: UUEPC



# Stock of RQF level 3 and below in the labour market

Highest qualification RQF level 3 and below by occupation (SOC, 2-digit) , NI, 2023



Source: Labour Force Survey

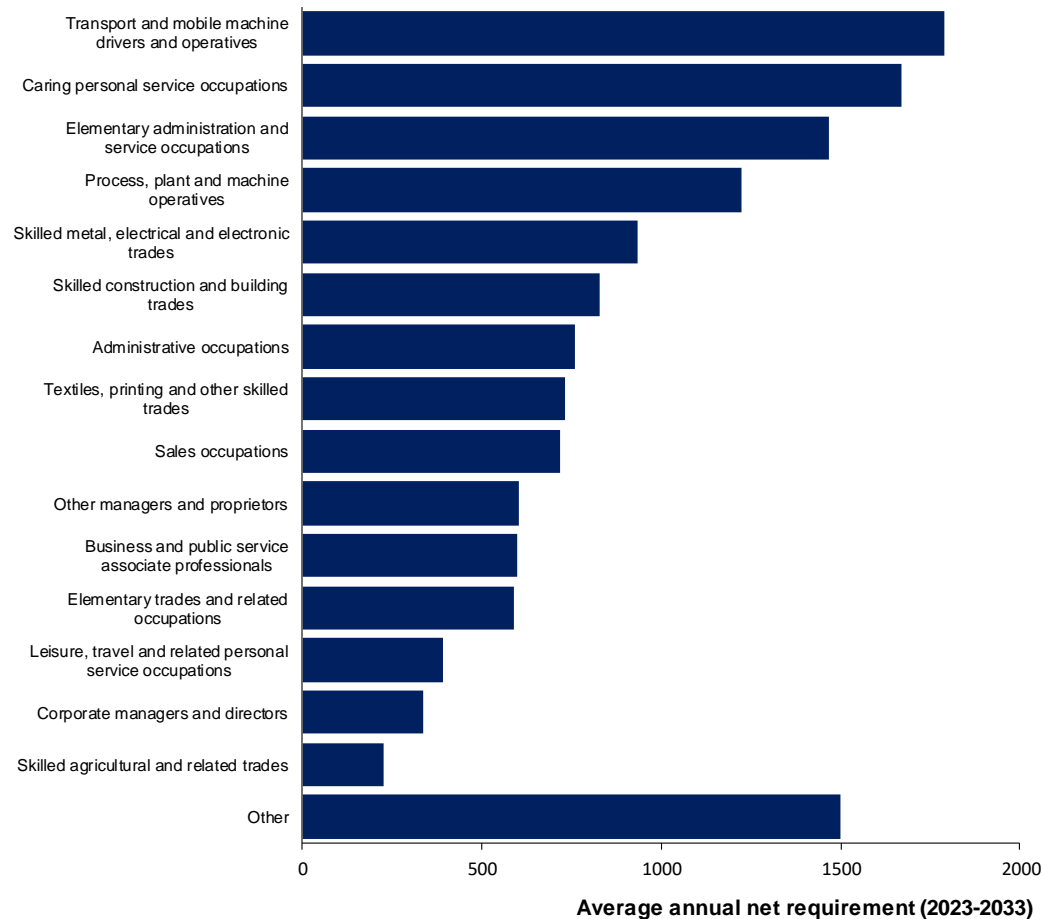
Note: Figures may not sum due to rounding.





# Net requirement (RQF level 3 and below) by occupation

**Average annual RQF level 3 and below net requirement by occupation (2 digit SOC), NI (2023-2033)**



Source: UUEPC

**RQF level 3 and below net requirement by occupation (top 15, 3-digit), NI (annual average 2023-2033)**

Occupation (3-digit)	% of RQF level 3 and below net requirement
Road Transport Drivers	10.1%
Caring Personal Services	8.9%
Process Operatives	5.1%
Food Preparation and Hospitality Trades	4.6%
Construction and Building Trades	4.4%
Sales Assistants and Retail Cashiers	4.0%
Elementary Cleaning Occupations	4.0%
Elementary Storage Occupations	3.3%
Teaching and Childcare Support Occupations	2.4%
Administrative Occupations: Government and Related Organisations	2.4%
Elementary Construction Occupations	2.0%
Other Elementary Services Occupations	2.0%
Elementary Process Plant Occupations	2.0%
Metal Machining, Fitting and Instrument Making Trades	2.0%
Electrical and Electronic Trades	1.9%

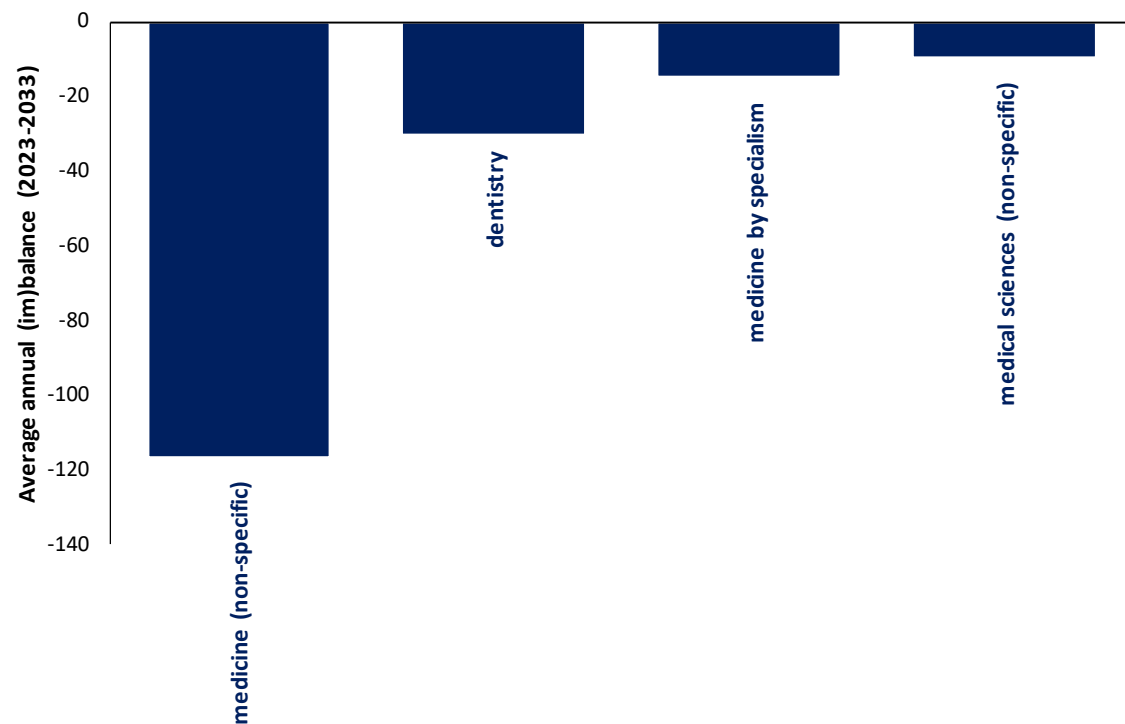
Source: UUEPC



## **Annex E1 - Supply gap by RQF level 6+ - detailed subjects (high growth)**

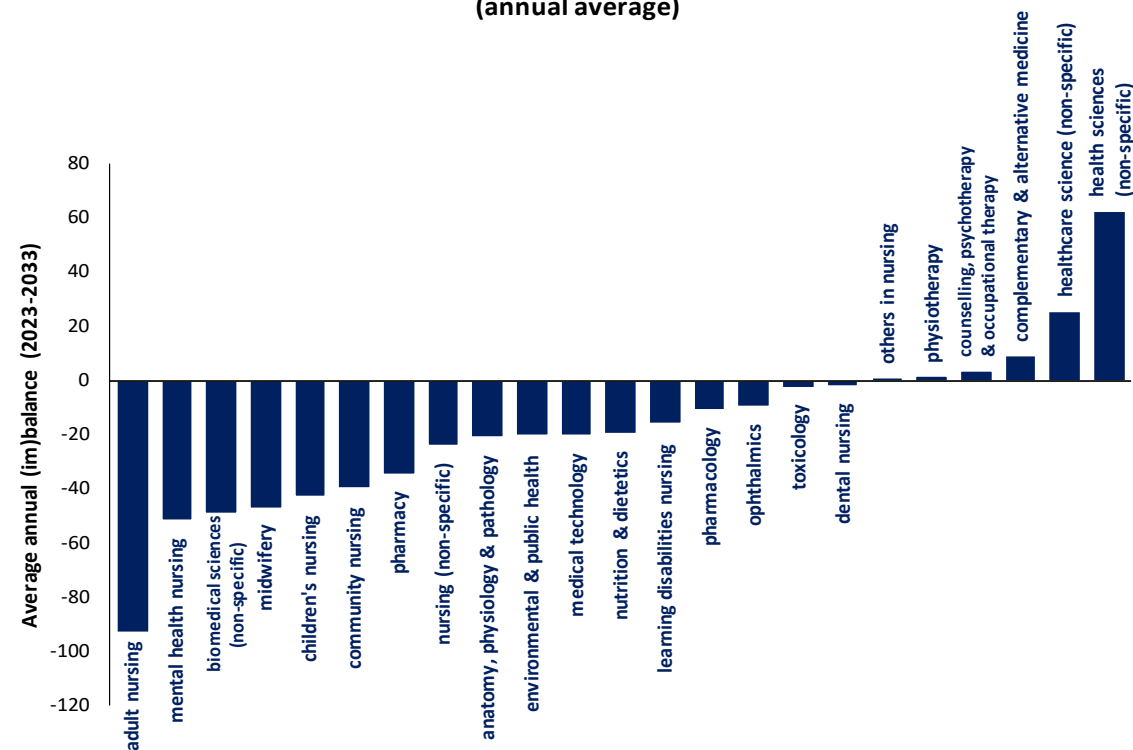
# Supply gap by degree subject (1)

RQF Level 6+ net supply gap, medicine & dentistry subjects, NI, 2023-2033 (annual average)



Source: UUEPC

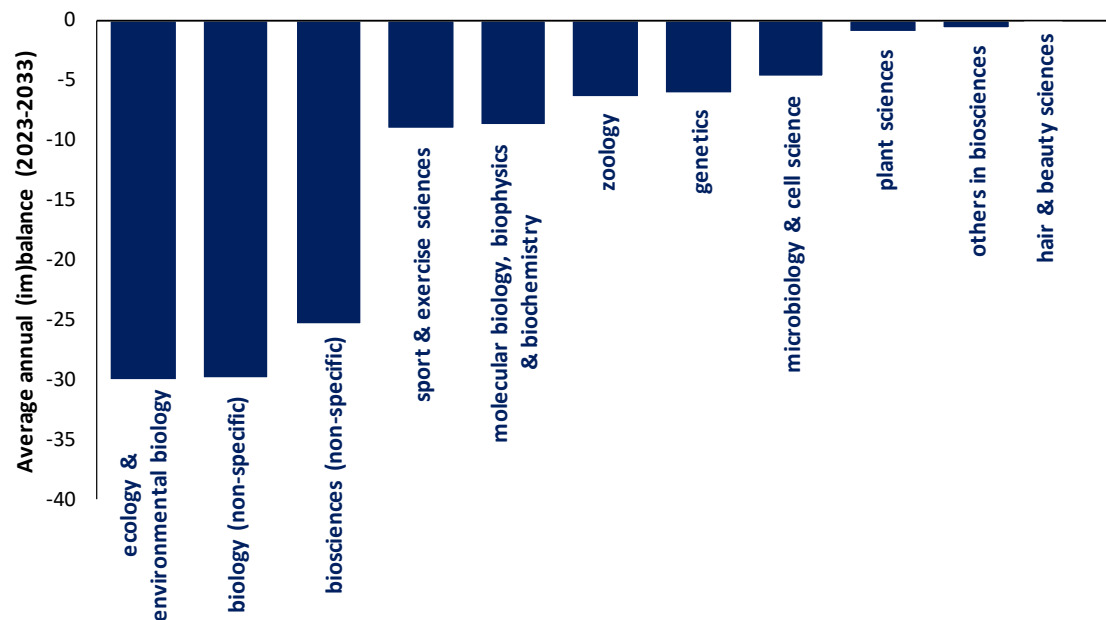
RQF Level 6+ net supply gap, subjects allied to medicine, NI, 2023-2033 (annual average)



Source: UUEPC

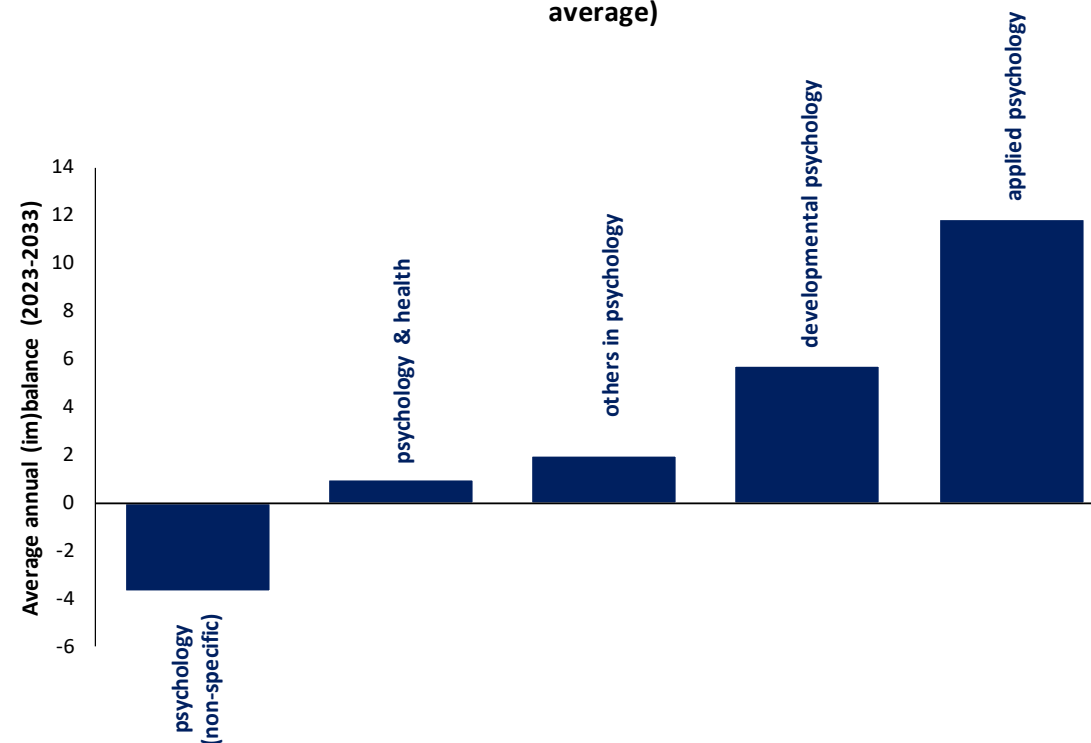
# Supply gap by degree subject (2)

RQF Level 6+ net supply gap, biological & sport sciences, NI, 2023-2033  
(annual average)



Source: UUEPC

RQF Level 6+ net supply gap, psychology subjects, NI, 2023-2033 (annual average)

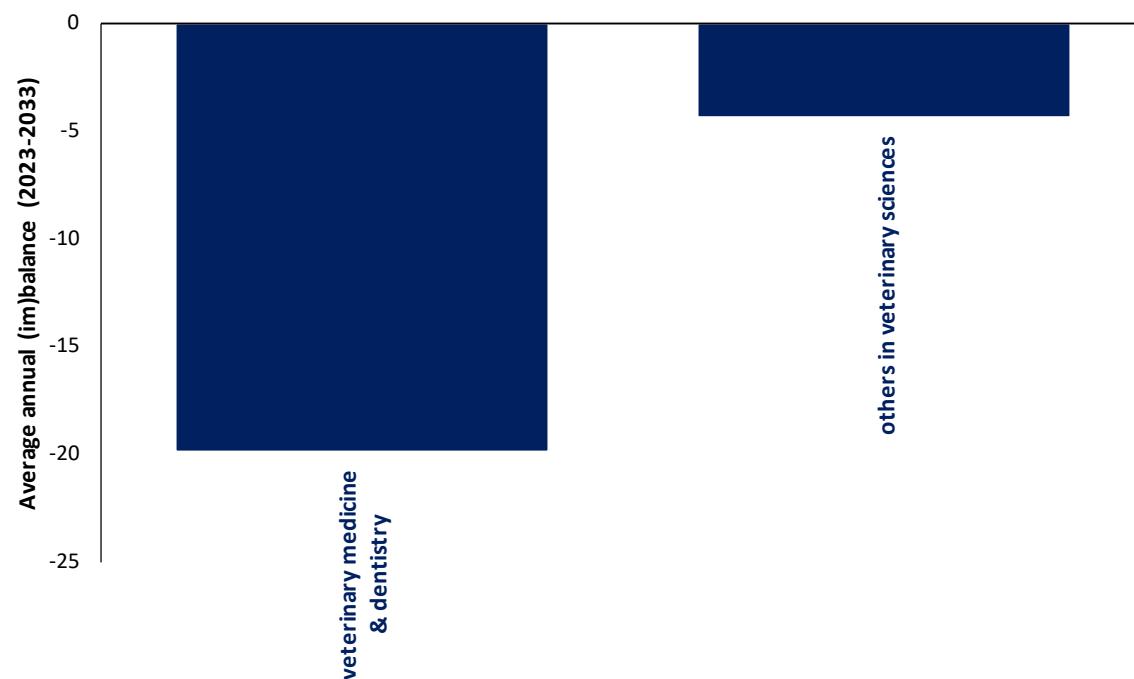


Source: UUEPC



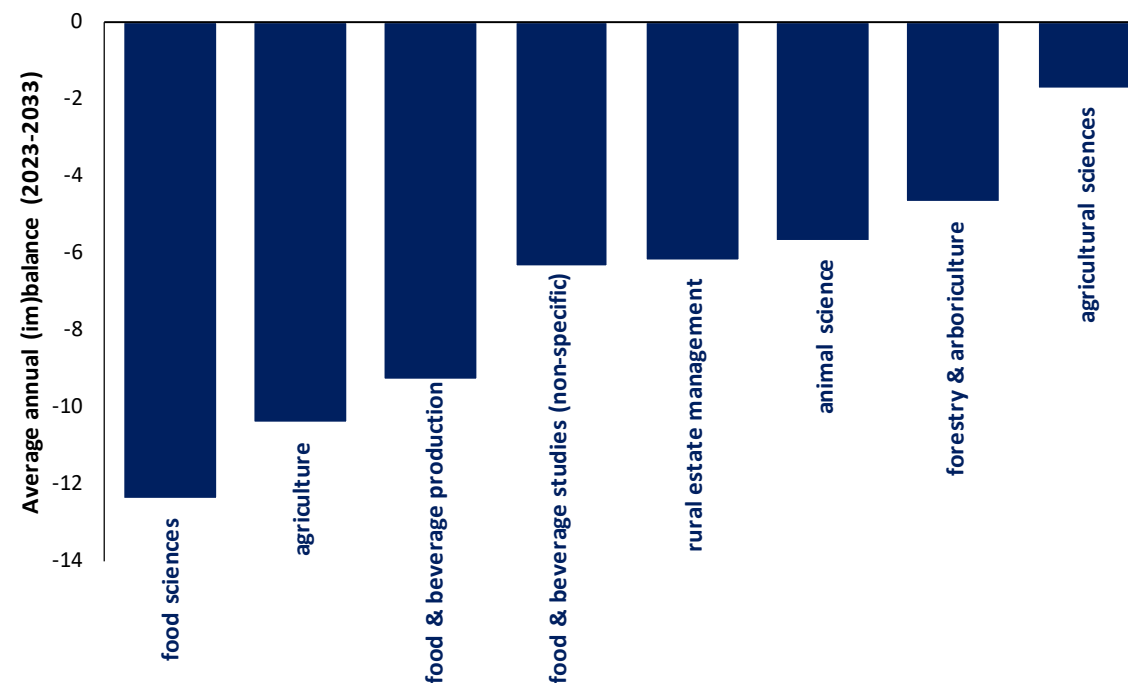
# Supply gap by degree subject (3)

RQF Level 6+ net supply gap, veterinary sciences, NI, 2023-2033 (annual average)



Source: UUEPC

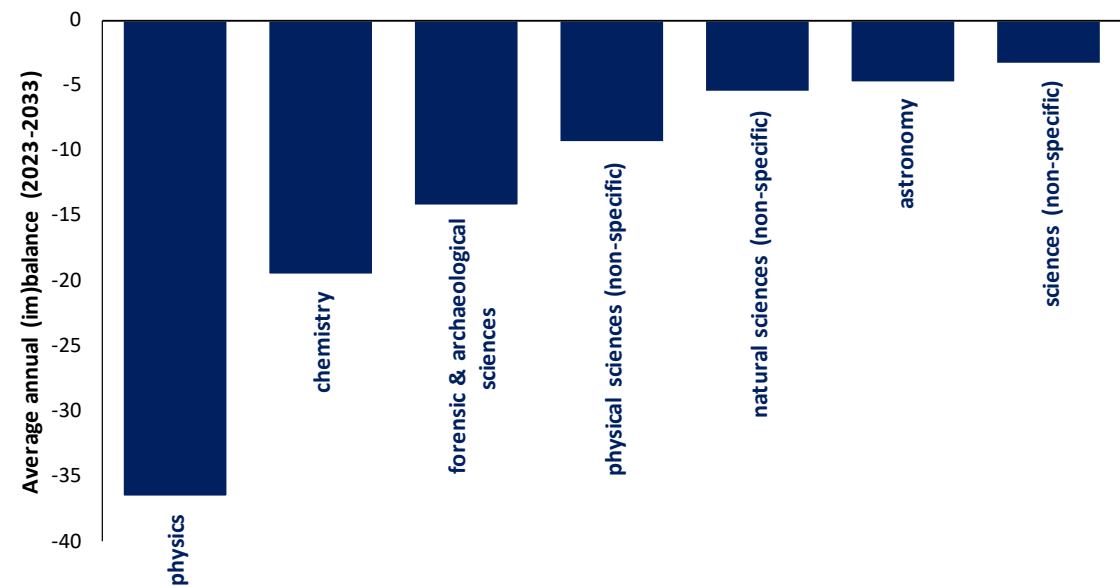
RQF Level 6+ net supply gap, agriculture, food & related studies, NI, 2023-2033 (annual average)



Source: UUEPC

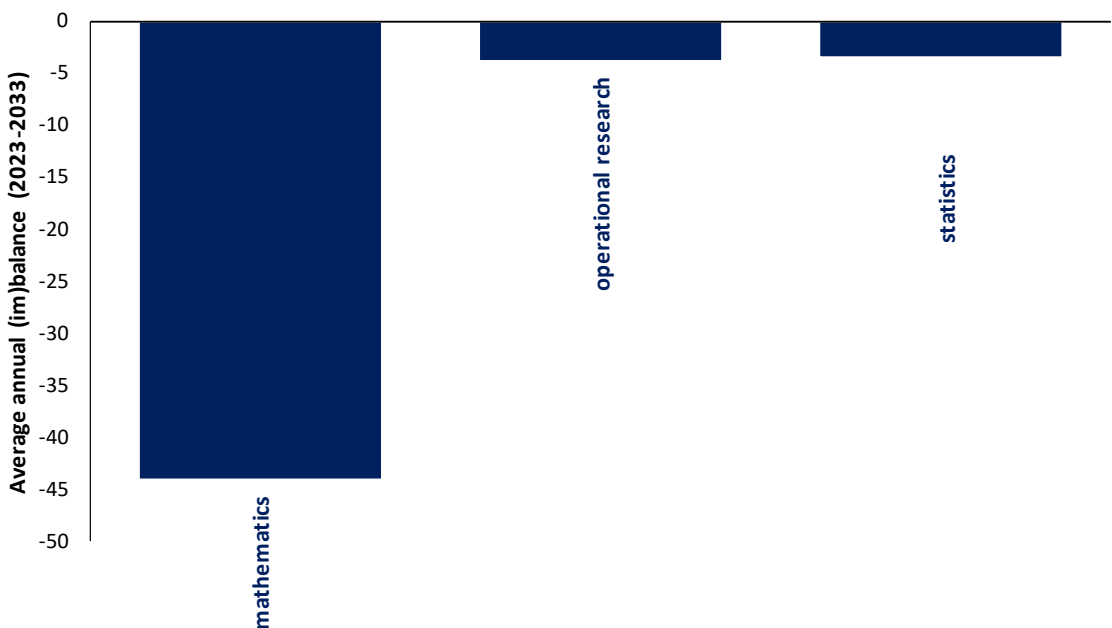
# Supply gap by degree subject (4)

RQF Level 6+ net supply gap, physical sciences, NI, 2023-2033 (annual average)



Source: UUEPC

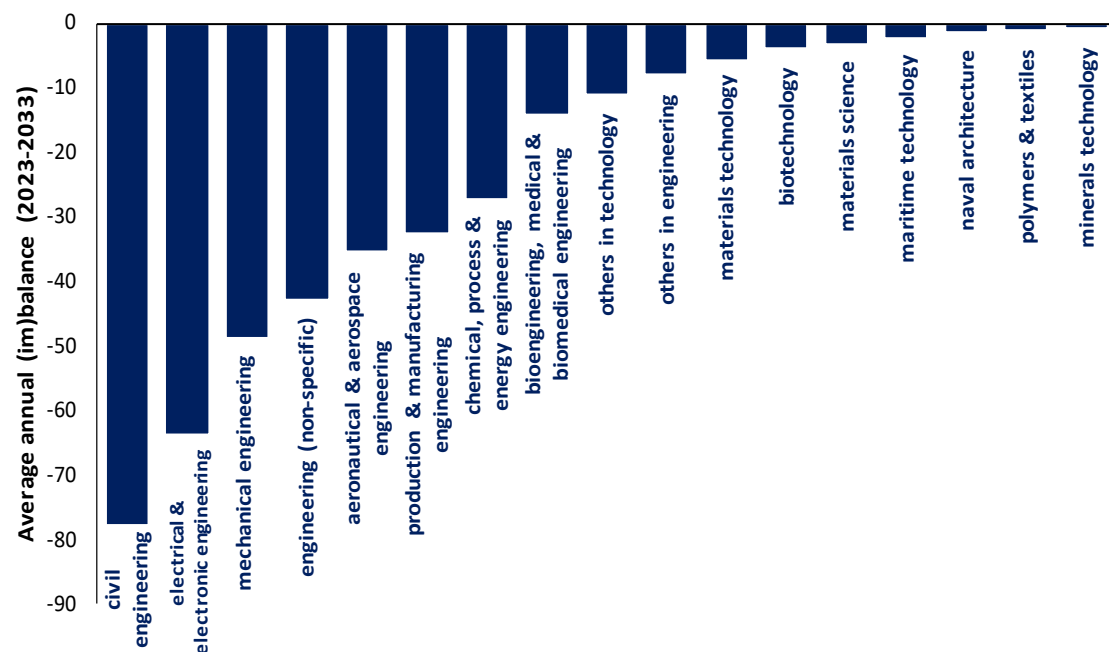
RQF Level 6+ net supply gap, mathematical sciences, NI, 2023-2033 (annual average)



Source: UUEPC

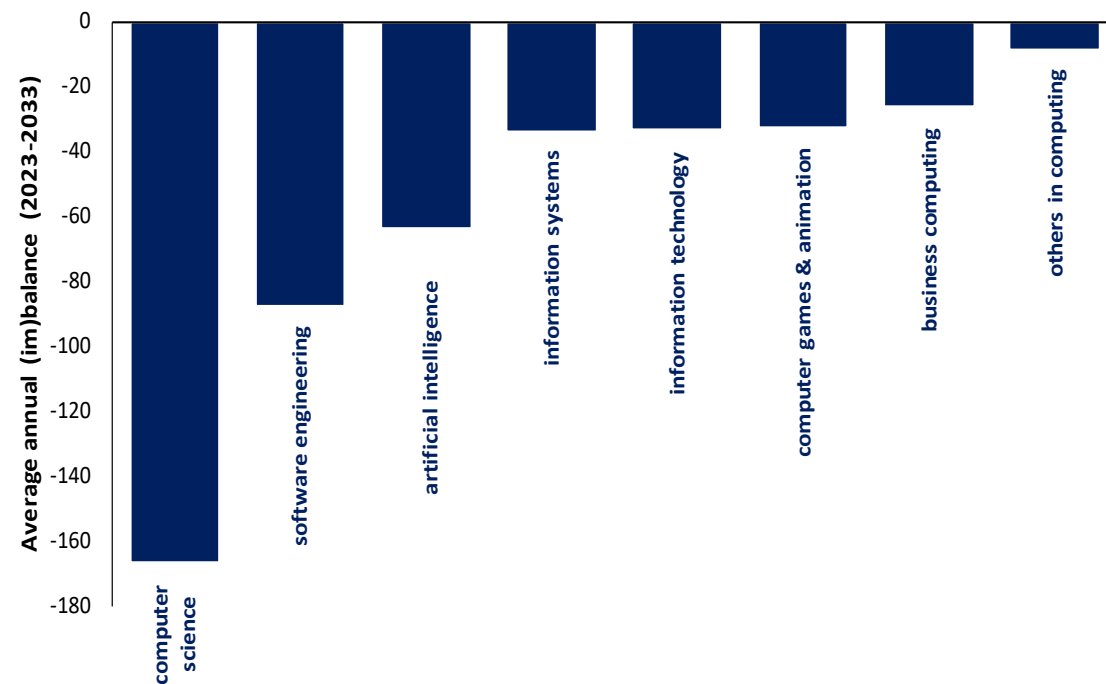
# Supply gap by degree subject (5)

RQF Level 6+ net supply gap, engineering & technology subjects, NI, 2023-2033 (annual average)



Source: UUEPC

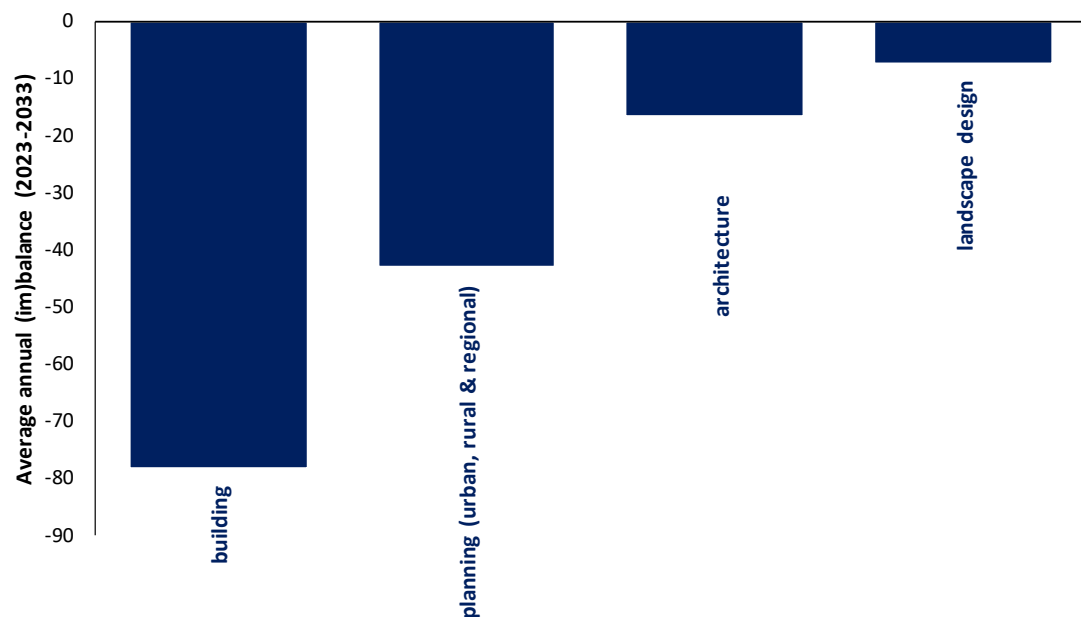
RQF Level 6+ net supply gap, computing subjects, NI, 2023-2033 (annual average)



Source: UUEPC

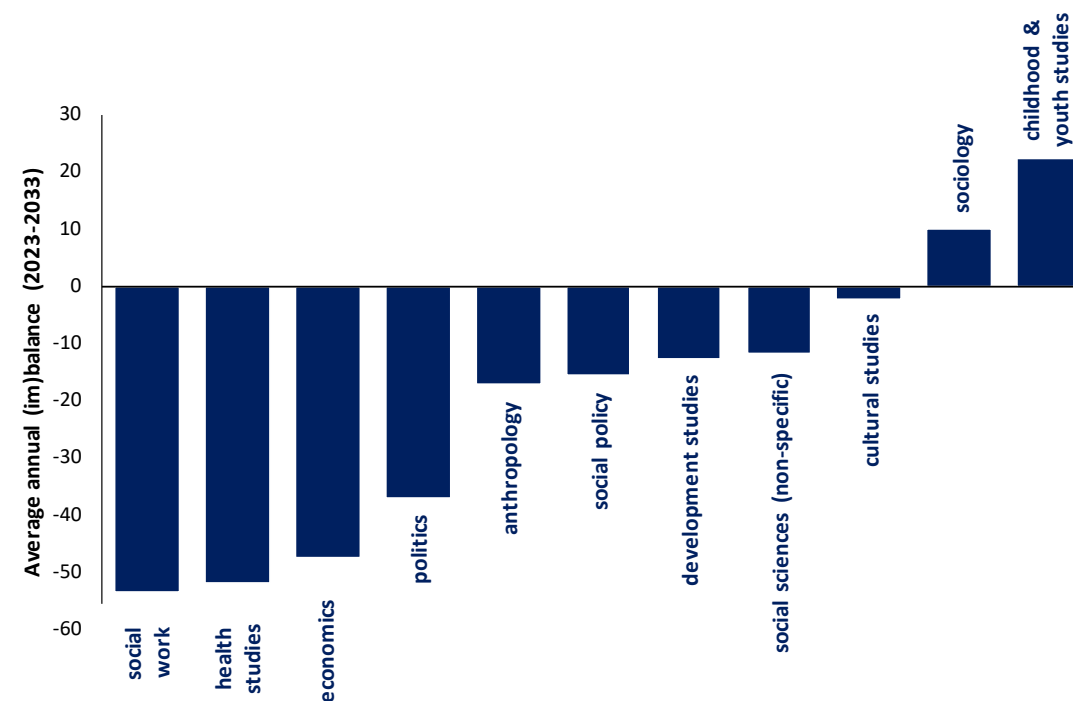
# Supply gap by degree subject (6)

RQF Level 6+ net supply gap, architecture, building & planning subjects, NI, 2023-2033 (annual average)



Source: UUEPC

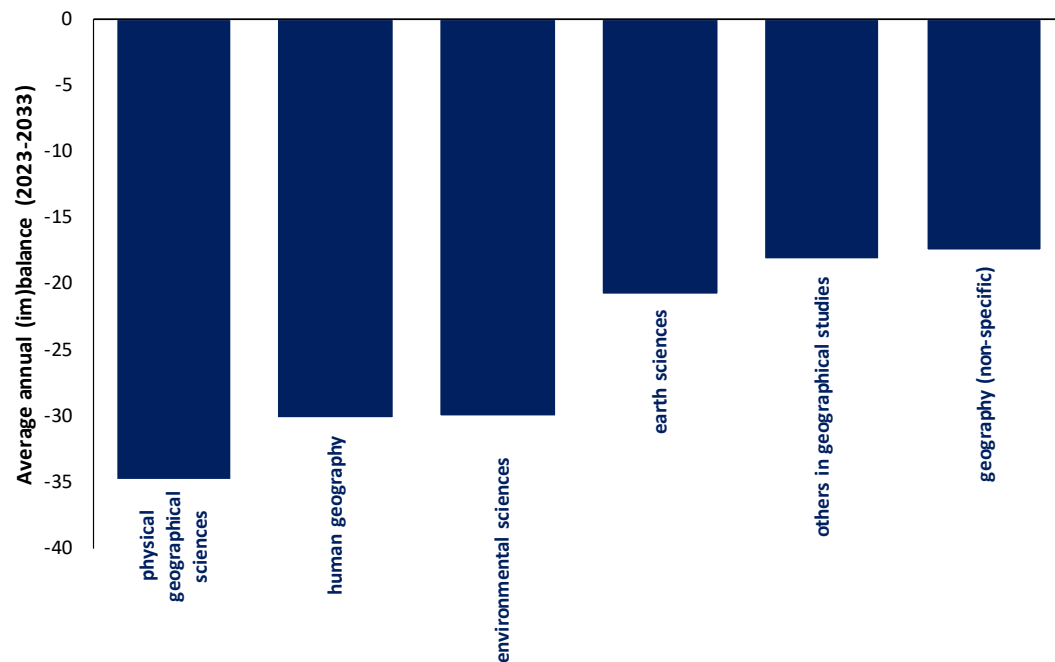
RQF Level 6+ net supply gap, social sciences, NI, 2023-2033 (annual average)



Source: UUEPC

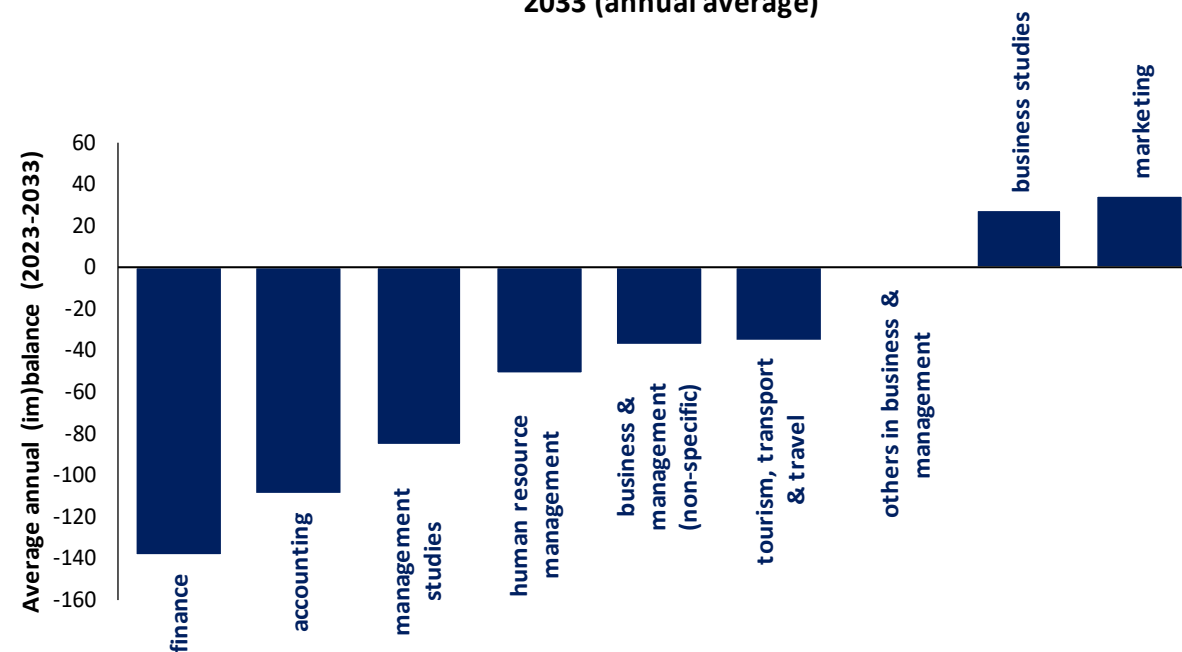
# Supply gap by degree subject (7)

RQF Level 6+ net supply gap, geography, earth and environmental sciences, NI, 2023-2033 (annual average)



Source: UUEPC

RQF Level 6+ net supply gap, business and management subjects, NI, 2023-2033 (annual average)

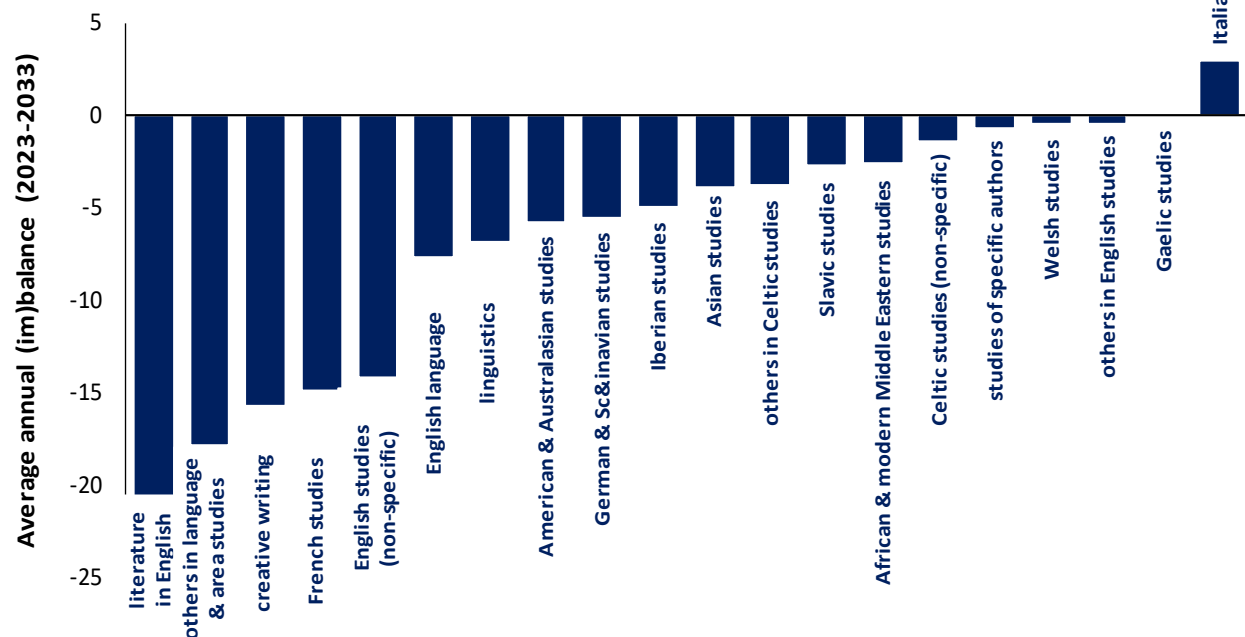


Source: UUEPC



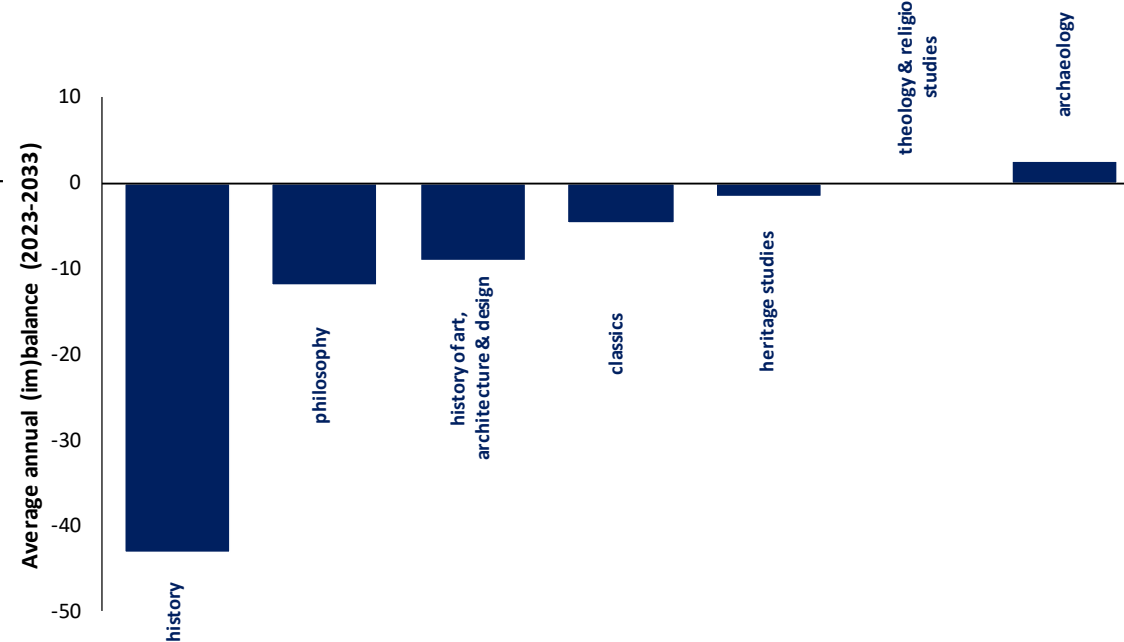
# Supply gap by degree subject (8)

RQF Level 6+ net supply gap, languages and area studies, NI, 2023-2033  
(annual average)



Source: UUEPC

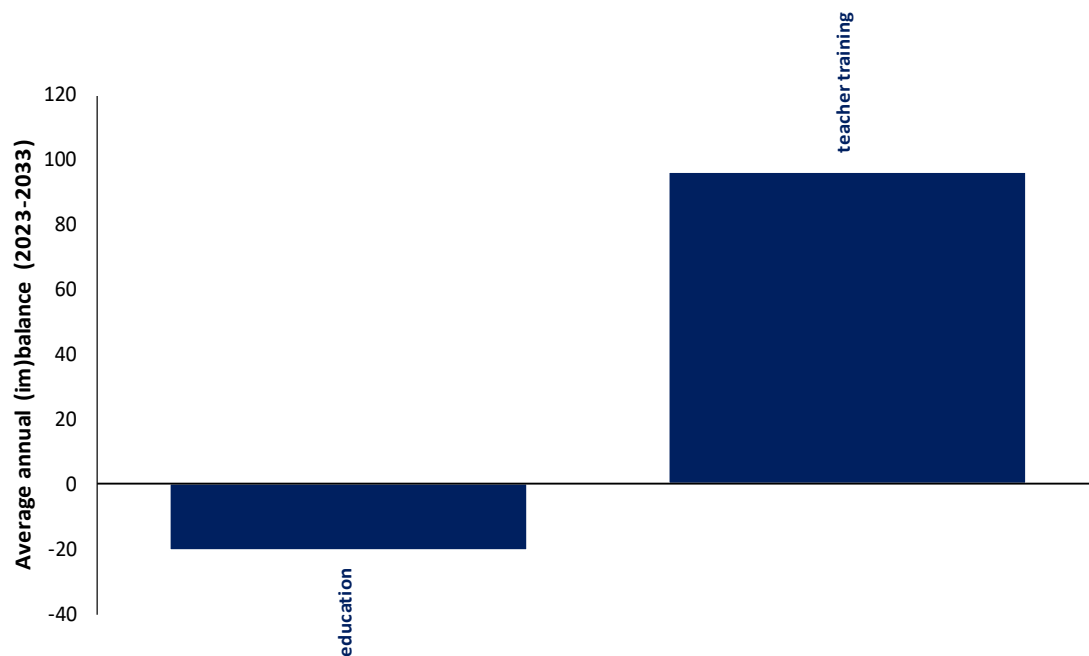
RQF Level 6+ net supply gap, historical, philosophical and religious studies, NI, 2023-2033 (annual average)



Source: UUEPC

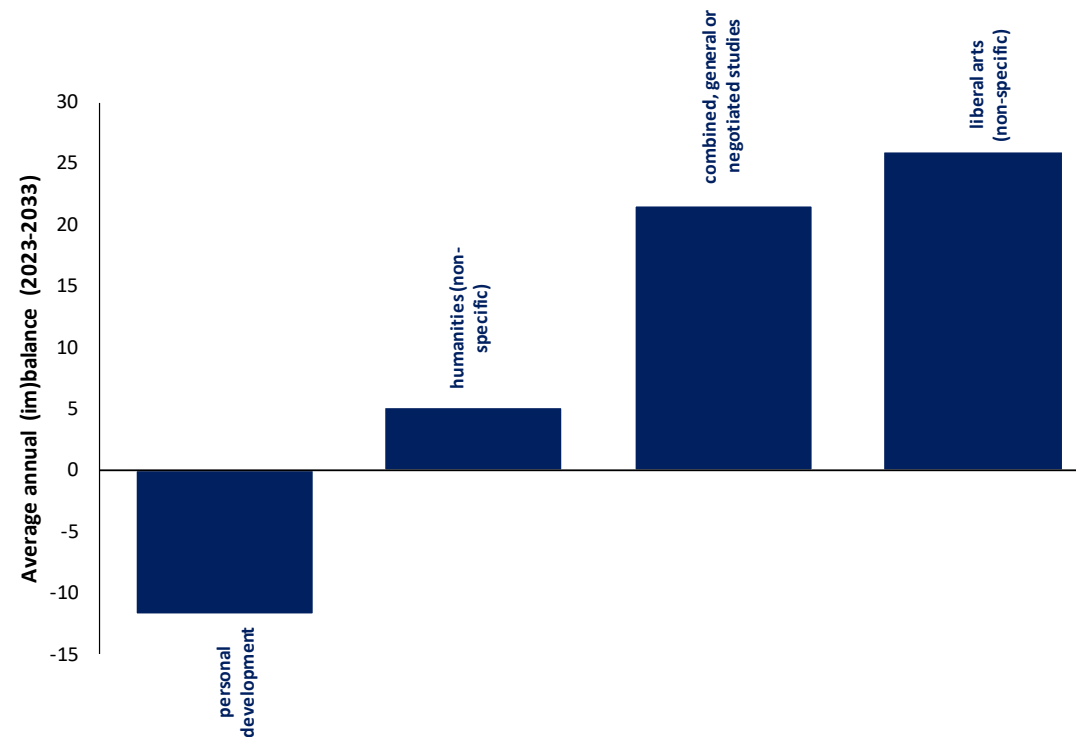
# Supply gap by degree subject (9)

RQF Level 6+ net supply gap, education and teaching subjects, NI, 2023-2033 (annual average)



Source: UUEPC

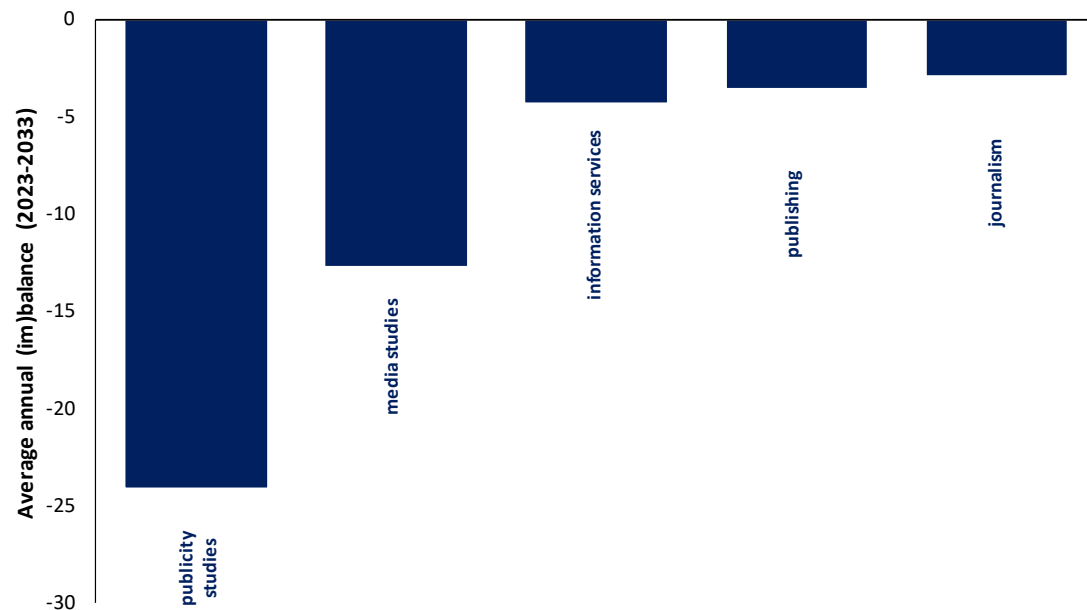
RQF Level 6+ net supply gap, combined and general studies, NI, 2023-2033 (annual average)



Source: UUEPC

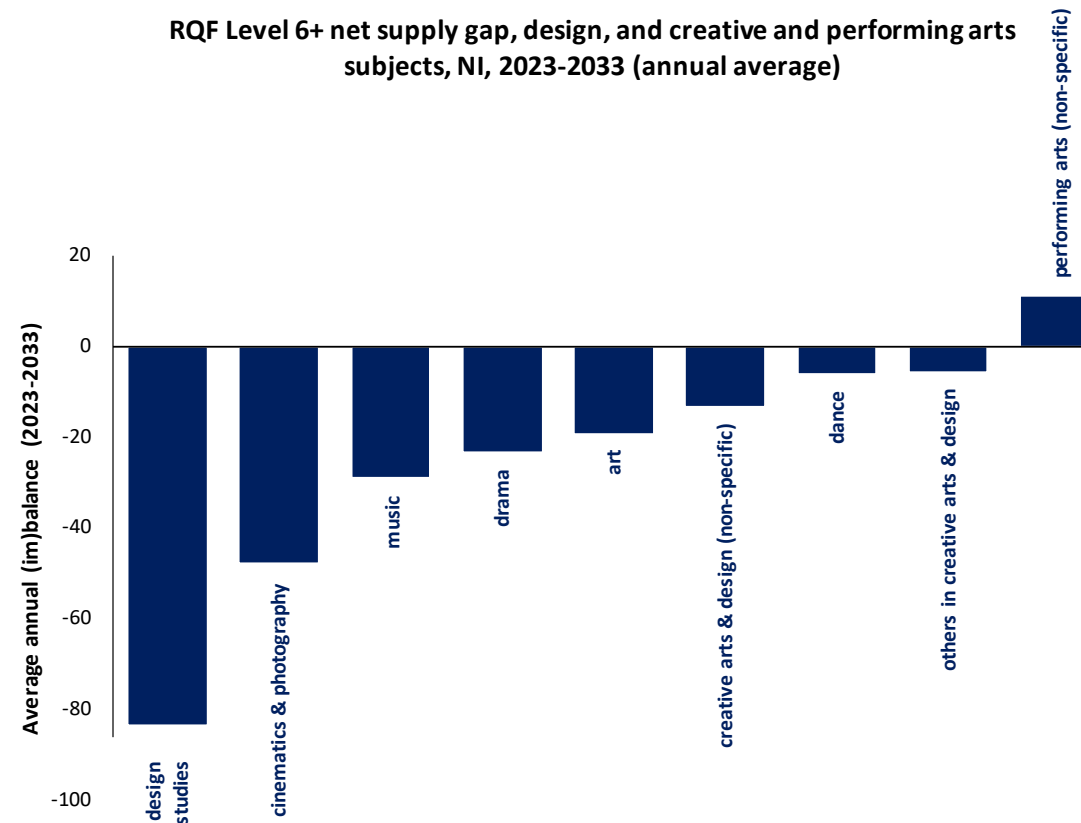
# Supply gap by degree subject (10)

RQF Level 6+ net supply gap, media, journalism and communication subjects, NI, 2023-2033 (annual average)



Source: UUEPC

RQF Level 6+ net supply gap, design, and creative and performing arts subjects, NI, 2023-2033 (annual average)



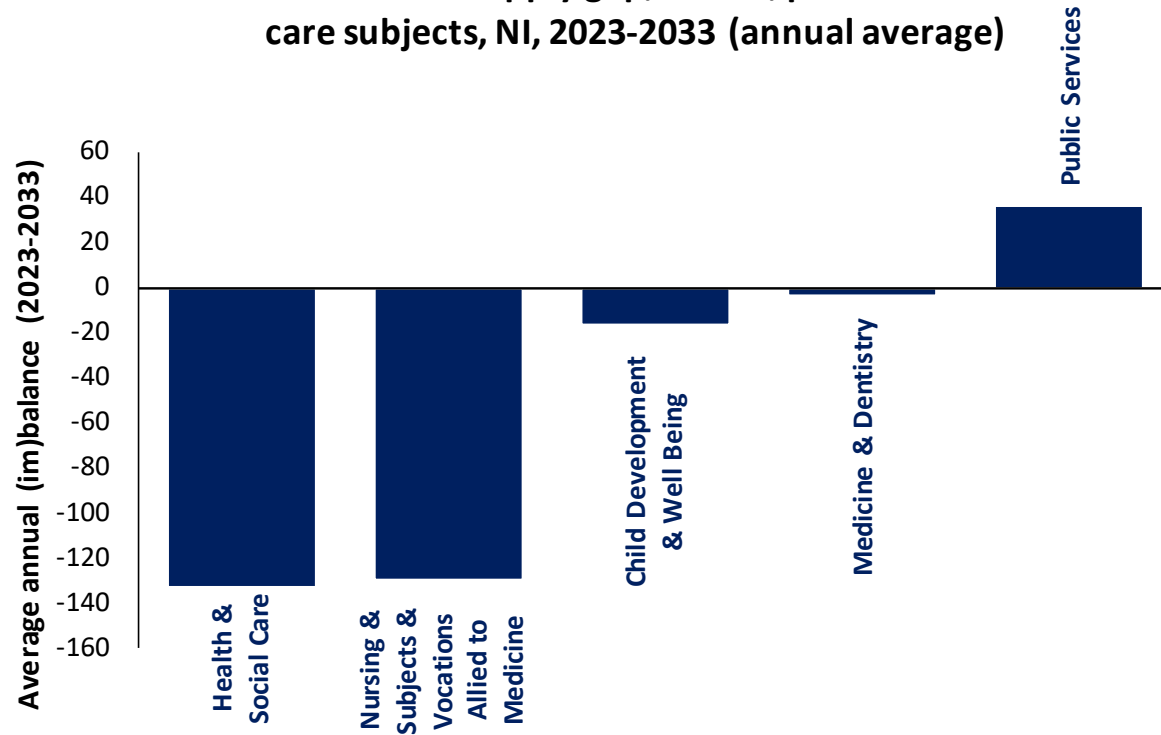
Source: UUEPC



## **Annex E2 - Supply gap by RQF level 4-5 - detailed subjects (high growth)**

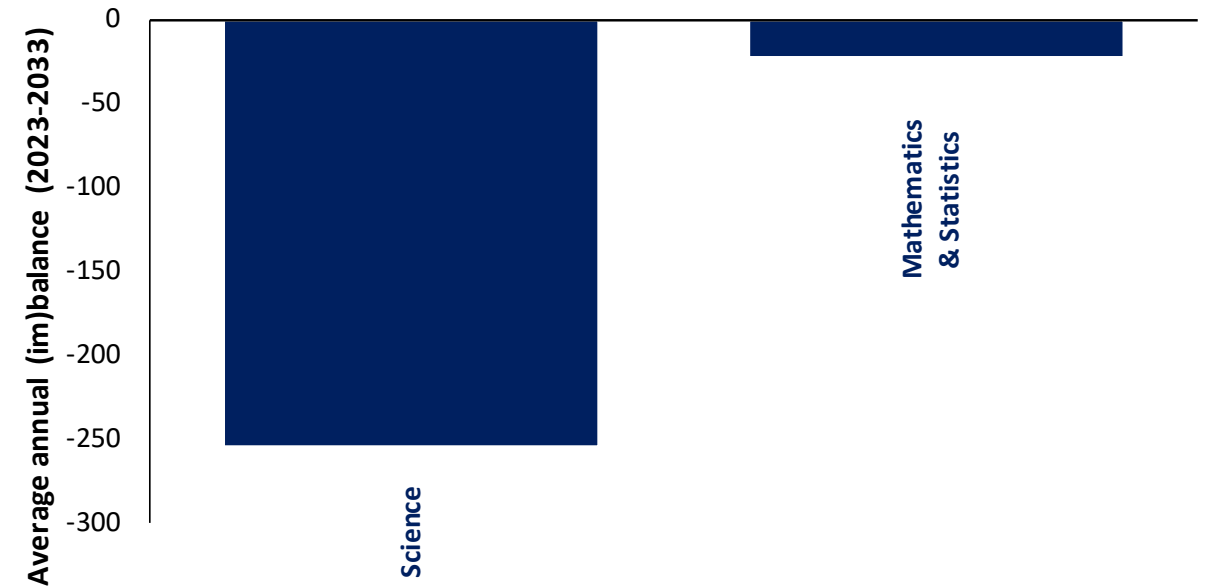
# Supply gap by sub-degree subject (1)

RQF Level 4-5 net supply gap, health, public services and care subjects, NI, 2023-2033 (annual average)



Source: UUEPC

RQF Level 4-5 net supply gap, science and mathematics subjects, NI, 2023-2033 (annual average)

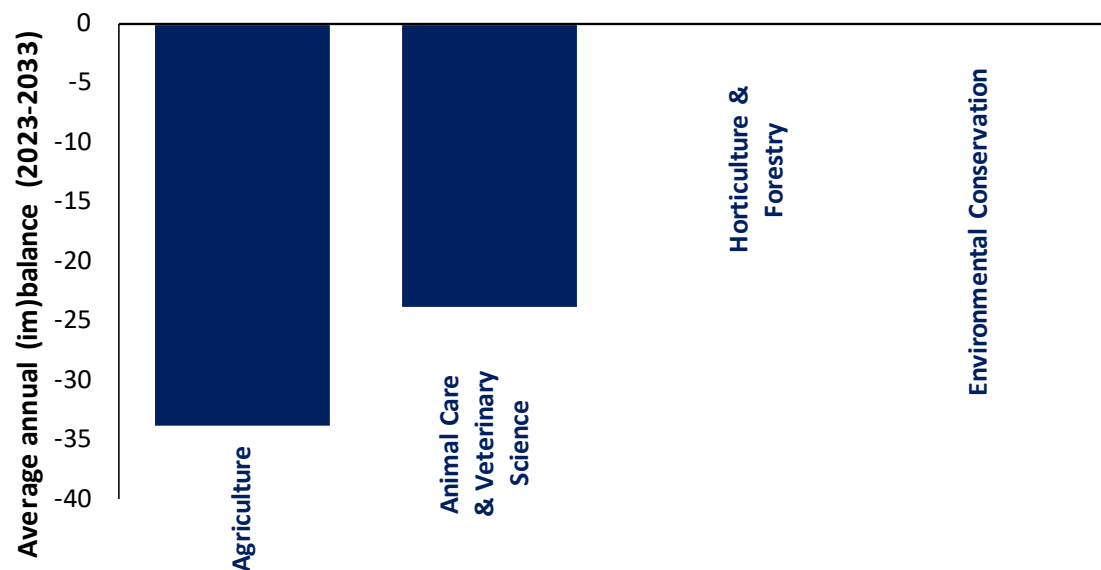


Source: UUEPC



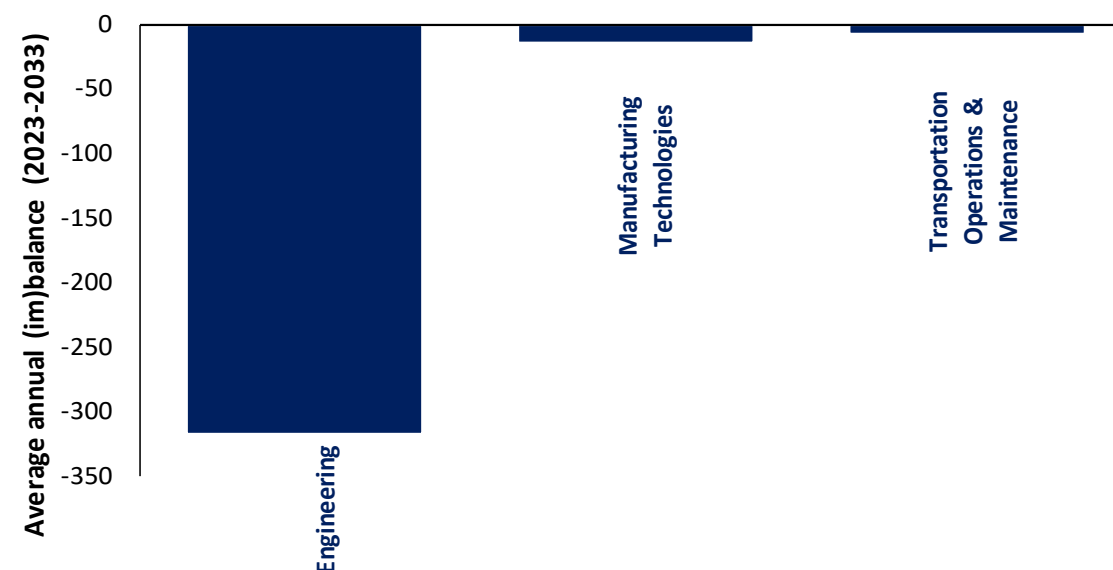
# Supply gap by sub-degree subject (2)

RQF Level 4-5 net supply gap, agriculture, horticulture and animal care subjects, NI, 2023-2033 (annual average)



Source: UUEPC

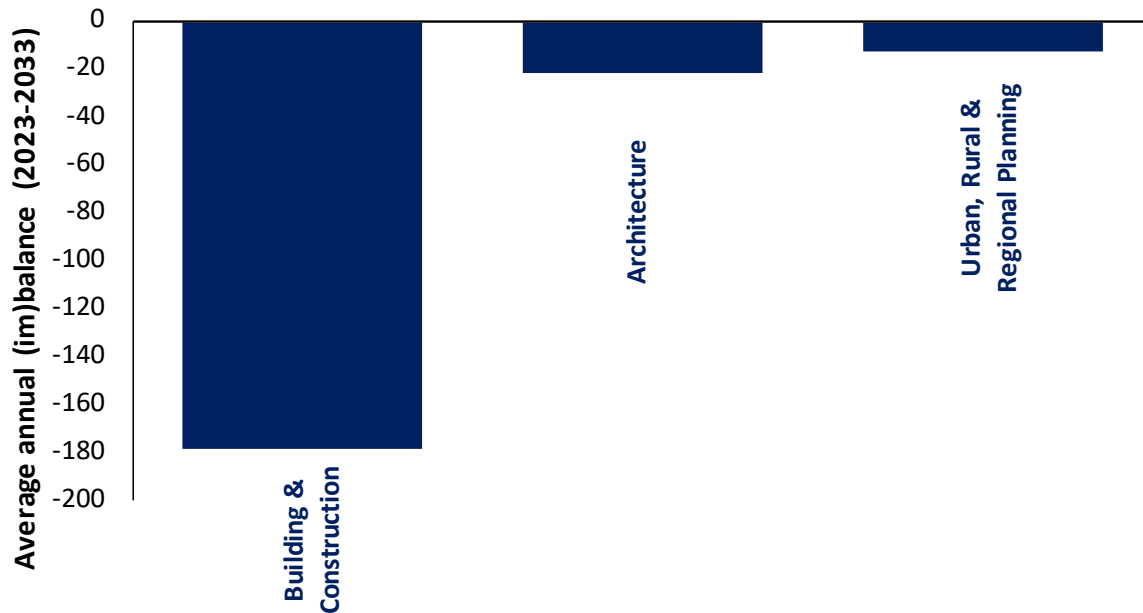
RQF Level 4-5 net supply gap, engineering and manufacturing technologies, NI, 2023-2033 (annual average)



Source: UUEPC

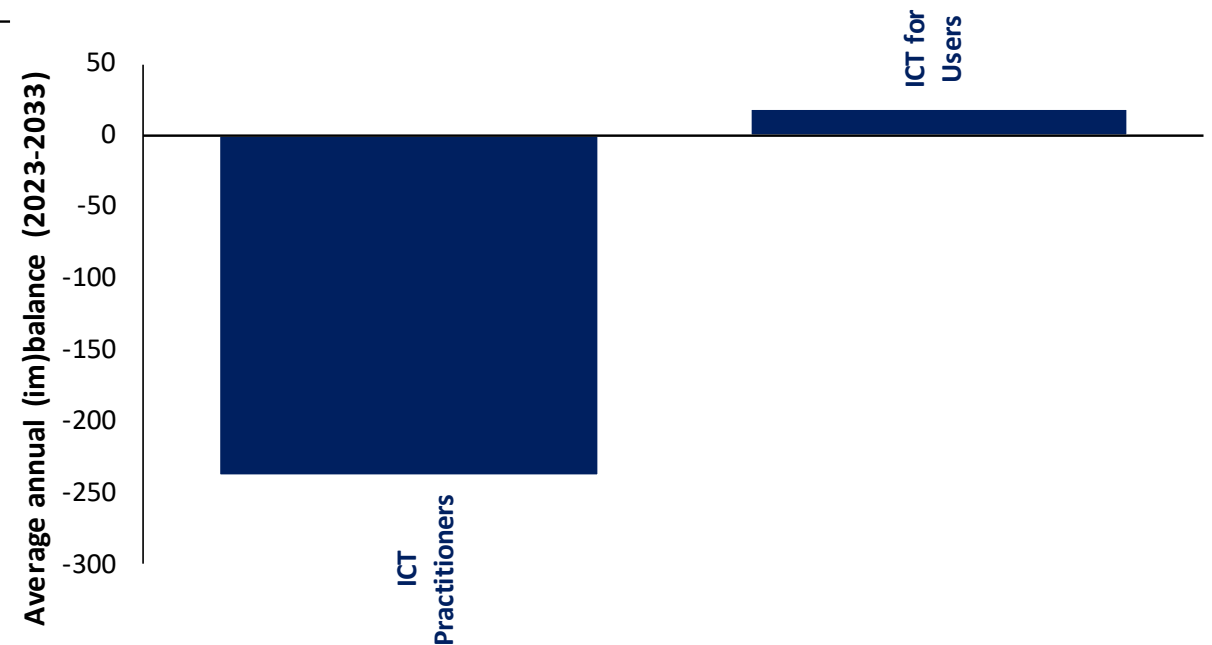
# Supply gap by sub-degree subject (3)

RQF Level 4-5 net supply gap, construction, planning and the built environment, NI, 2023-2033 (annual average)



Source: UUEPC

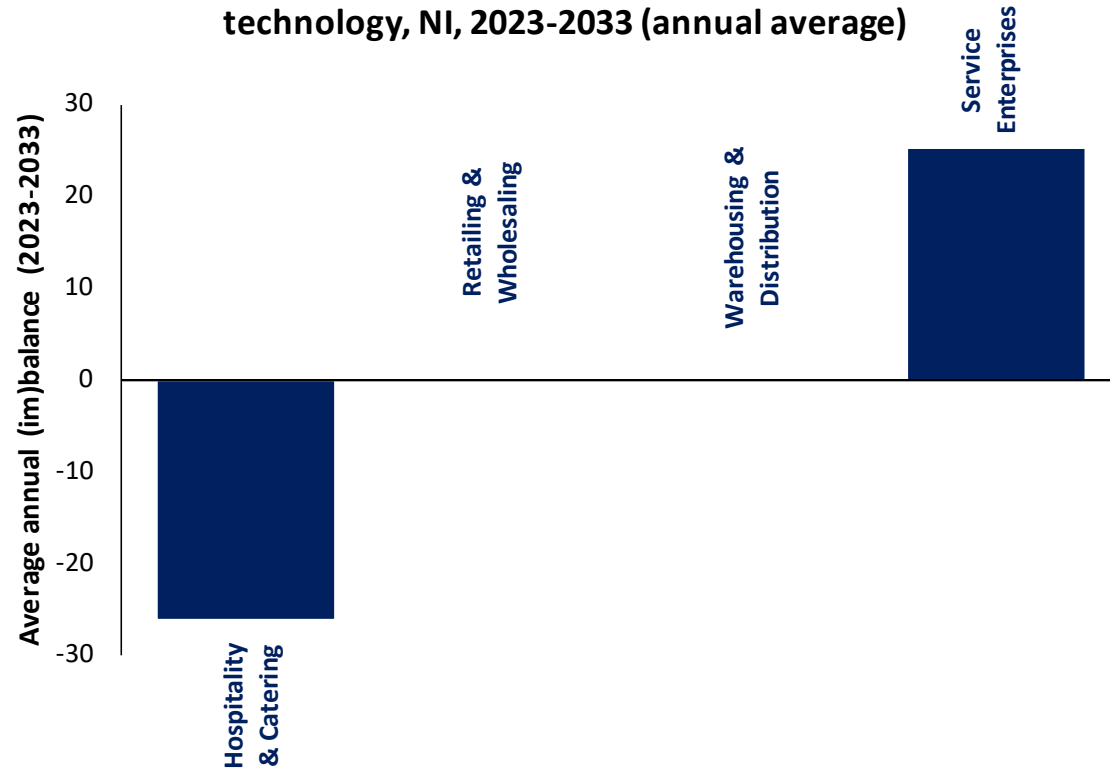
RQF Level 4-5 net supply gap, information and communication technology, NI, 2023-2033 (annual average)



Source: UUEPC

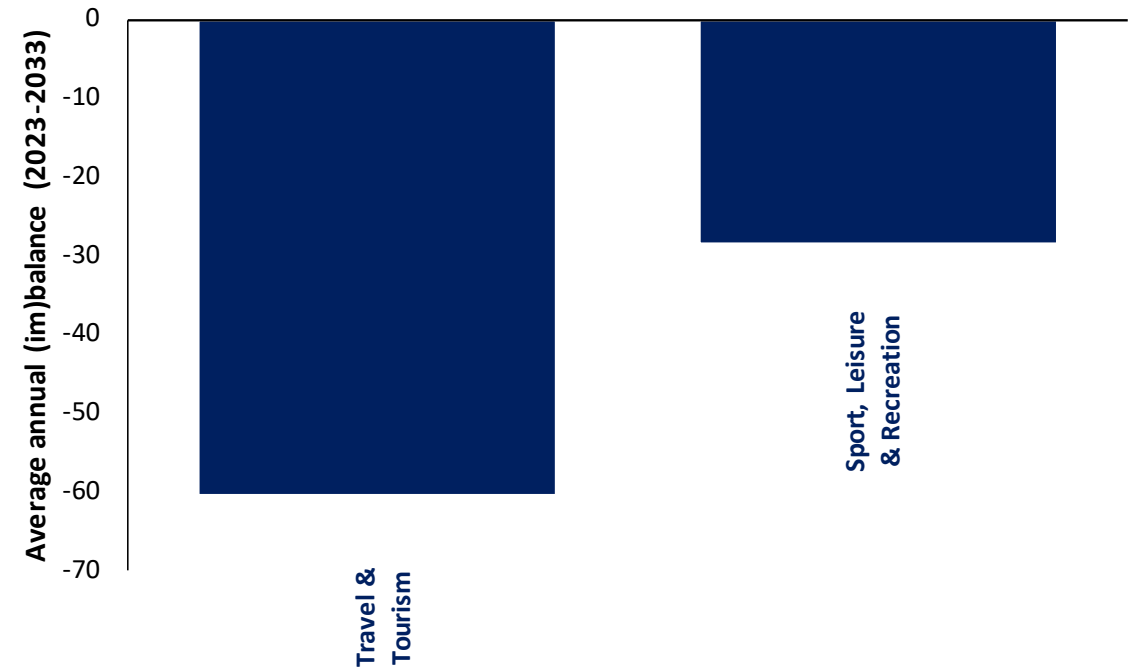
# Supply gap by sub-degree subject (4)

RQF Level 4-5 net supply gap, retail and commercial  
technology, NI, 2023-2033 (annual average)



Source: UUEPC

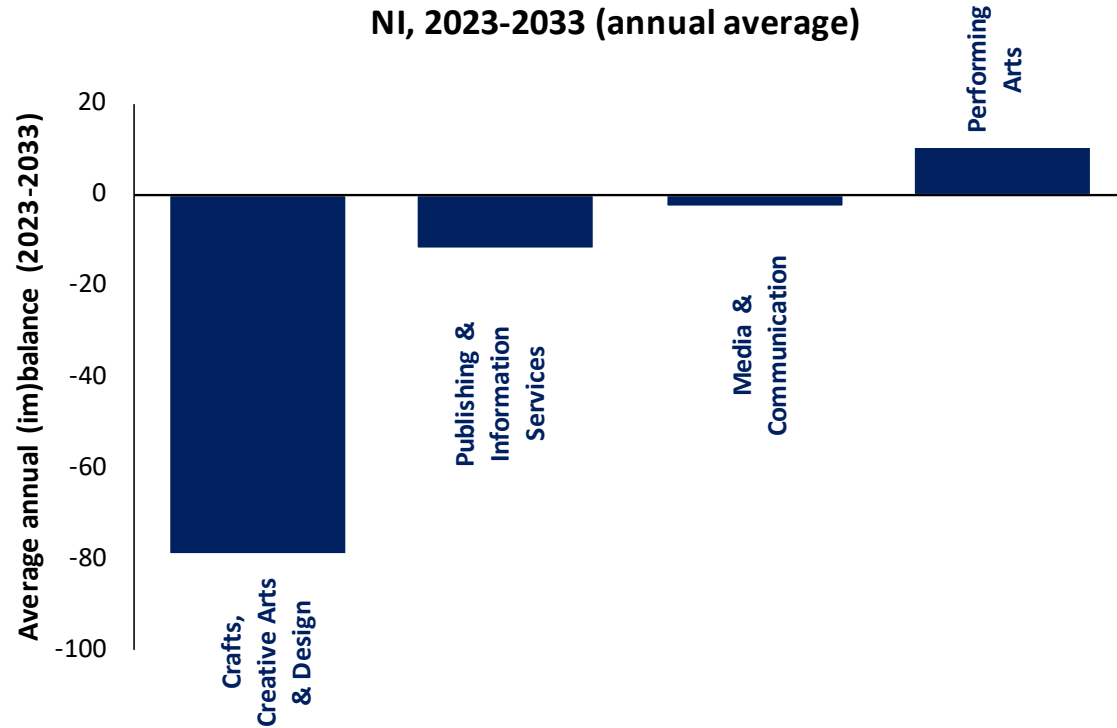
RQF Level 4-5 net supply gap, leisure, travel and tourism,  
NI, 2023-2033 (annual average)



Source: UUEPC

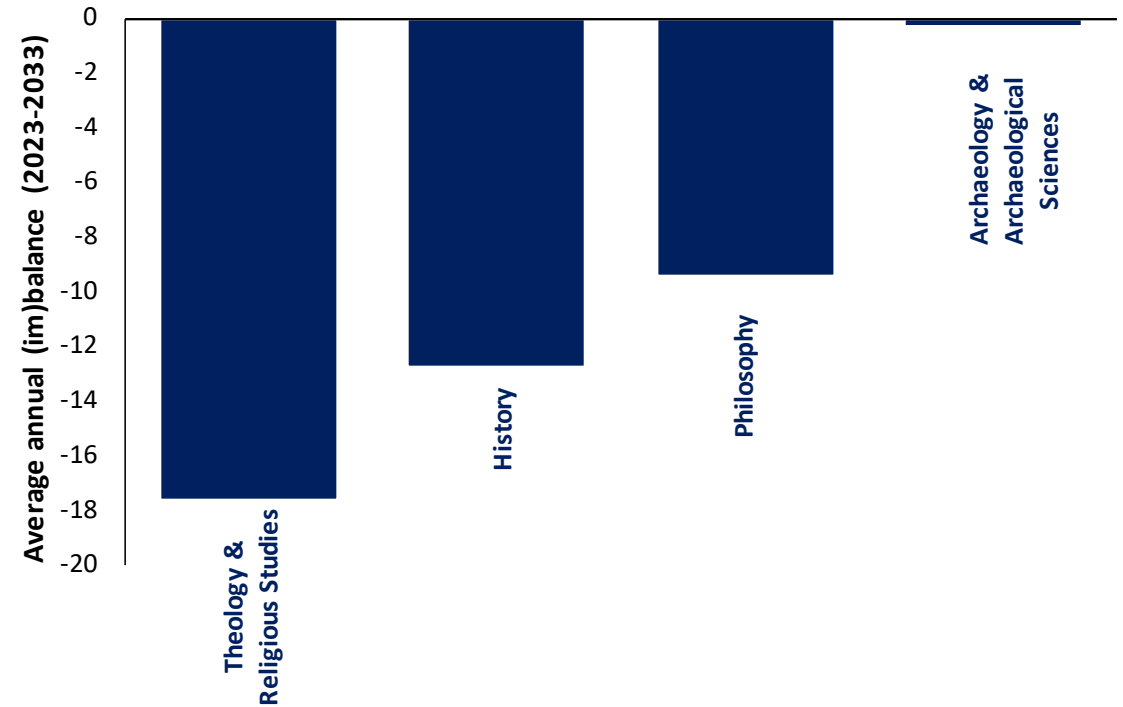
# Supply gap by sub-degree subject (5)

RQF Level 4-5 net supply gap, arts, media and publishing,  
NI, 2023-2033 (annual average)



Source: UUEPC

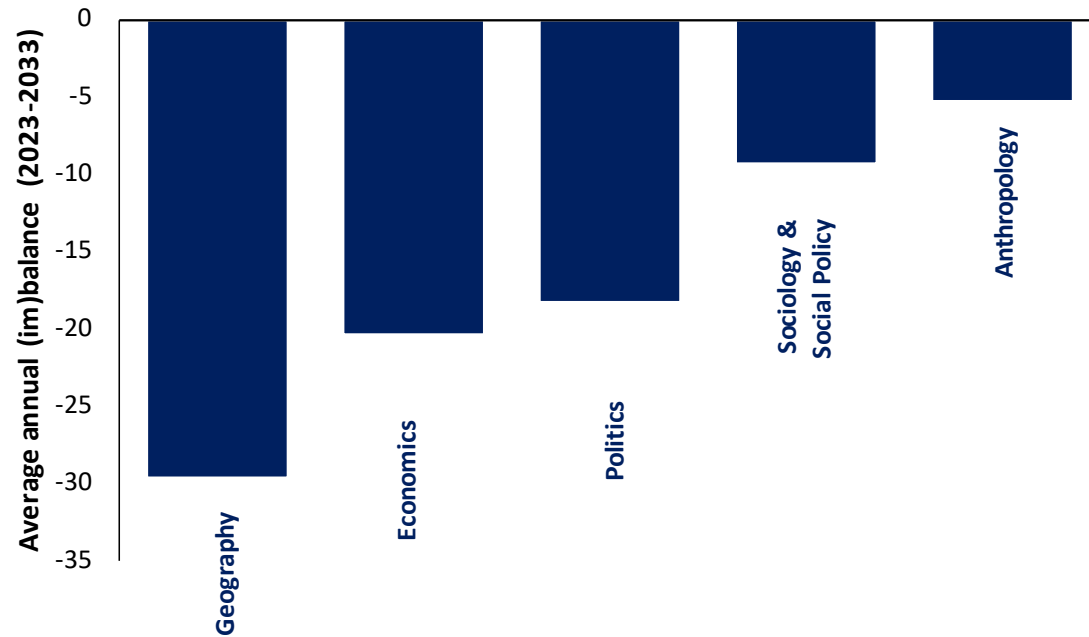
RQF Level 4-5 net supply gap, history, philosophy and  
theology, NI, 2023-2033 (annual average)



Source: UUEPC

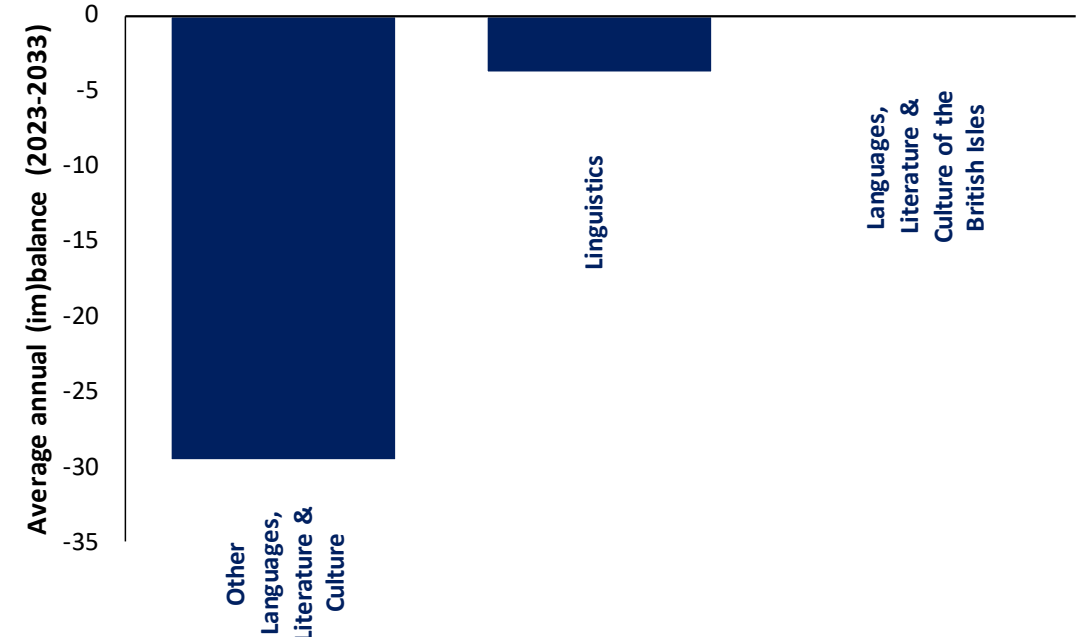
# Supply gap by sub-degree subject (6)

RQF Level 4-5 net supply gap, social sciences, NI, 2023-  
2033 (annual average)



Source: UUEPC

RQF Level 4-5 net supply gap, languages, literature and  
culture, NI, 2023-2033 (annual average)

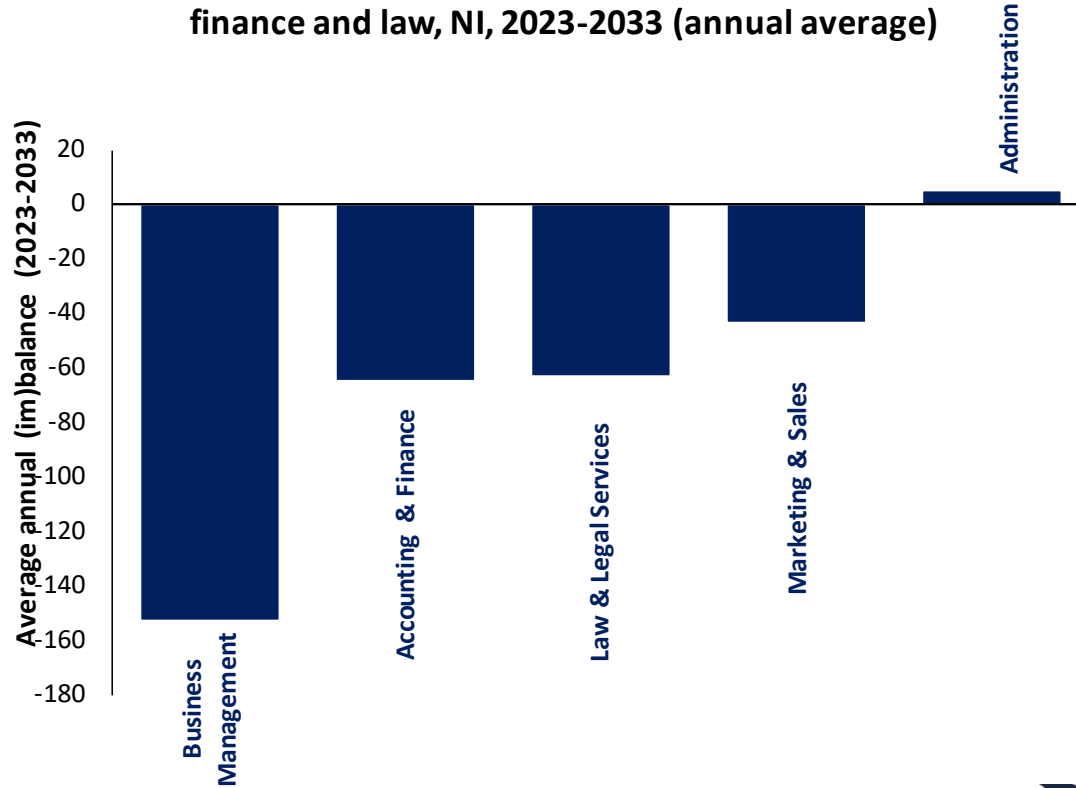


Source: UUEPC



# Supply gap by sub-degree subject (8)

RQF Level 4-5 net supply gap, business, administration, finance and law, NI, 2023-2033 (annual average)



Source: UUEPC



# Contacts

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