Monitoring Ireland's Skills Supply **2021**







Monitoring Ireland's Skills Supply 2021

A report compiled by the Skills and Labour Market Research Unit in SOLAS on behalf of the National Skills Council

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List of Abbreviations

ICS	Irish Computer Society
CSO	Central Statistics Office
I/ECDL	International/European Computer Driving Licence
ETB	Education Training Board
Eurostat	Statistical Office of the European Union
FET	Further Education and Training
HE	Higher Education
HEA	Higher Education Authority
IAASA	Irish Auditing and Accounting Supervisory Authority
IoT	Institute of Technology
ICT	Information Communications Technology
n.e.c.	Not elsewhere classified
NFQ	National Framework of Qualifications
QQI	Quality and Qualifications Ireland
SSBL	Social Science, Business and Law
STEM	Science, Technology, Engineering and Manufacturing

Summary

Potential supply of skills from further and higher education in Ireland

125,700 A	The number of awards made across the FET and higher education system in 2019, up 2% on last year* and up 13% on 2015					
7,200	Science made up 6% of —	+6% compared to 2018*				
Science awards	awards in 2019	+25% compared to 2015				
8,300	ICT made up 7% of awards in	+18% compared to 2018*				
ICT awards	2019	+50% compared to 2015				
9,000 Engineering	Engineering made up 7% of	-4% compared to 2018 [*]				
awards	awards in 2019	+34% compared to 2015				
2,800 Construction	Construction made up 2% of	+18% compared to 2018*				
awards	awards in 2019	+4% compared to 2015				

36,500	Social science, business and law (SSBL) made up _	+9% compared to 2018*
SSBL awards	29% of awards in 2019	+15% compared to 2015
24,100 Health &	Health/welfare made up 10% of awards in 2010	-9% compared to 2018 *
welfare awards	1976 OF awards in 2019	+3% compared to 2015
13,700 Arts/humanities	Arts/humanities made up	-3% compared to 2018*
awards		-4% compared to 2015
7,800 Education	Education made up 6% of	+10% compared to 2018*
awaras		+70% compared to 2015
4,400 Agriculture	Agriculture made up 3% of _	-19% compared to 2018*
awards	awards in 2019	+20% compared to 2015
8,200 Sonvicos	Services made up 7% of	-15% compared to 2018*
awards	awards in 2019	-17% compared to 2015

*Note: the 2018-2019 change includes non-QQI FET awards from the SOLAS/ETBI PLSS; as this data is not available prior to 2018, the 2015-2019 changes are based on QQI-FET & HE and HEA awards data only.

Education profile of 20-74 year-olds by level, Q2 2021



Second Level Education

- 16% of Ireland's 20-74 year-olds held at most a level 3 qualification; persons at this level are concentrated in the older age cohorts with 308,000 (60%) aged 60-74 years.
- 24% held a Leaving Cert or equivalent (NFQ level 4/5)

Further Education and Training

- Over 13% of Ireland's 20-74-year-olds held FET qualifications, representing 450,000 persons, with similar shares at levels 4/5 and level 6
- Females dominate at NFQ level 4/5: 71% of all FET holders at this level are female
- Males dominate at NFQ level 6 making up 68% at this level.

Third Level (NFQ 6-8)

- More than one third of Ireland's 20-74 year-olds held third level qualifications at levels 6-8 on the NFQ, representing 1.1 million persons
- Qualification holders at this level tend to be in the younger cohorts, with 29% (or 329,100 persons) aged between 20 and 33 years.

Third Level (NFQ 9-10)

- 12% (or over 413,000) of 20-74 yearolds held level 9 or 10 qualifications.
- Nearly one half of all qualification holders at this level are aged between 30 and 44 years.

Excludes not stated

1. Introduction

This report, *Monitoring Ireland's Skills Supply 2021*, is the 15th in a series of annual reports produced by the SLMRU aimed at monitoring the potential supply of skills to the labour market from Ireland's education and training system. Not all education and training graduates will enter the labour market: some may remain in education for further studies, travel abroad, or not enter the labour market due to family commitments or other reasons. Others may already be in the workforce and therefore do not represent a new supply of skills. Bearing in mind these caveats, the analysis of the education/training outputs by level and field presented here is an overview of how Ireland's education and training can contribute to meeting the skills needs of the economy. For this reason, this report also provides an analysis of the skills profile of Ireland's adult population.

Monitoring Ireland's Skills Supply serves as a companion publication for the National Skills Bulletin, where the focus is on the demand for skills in Ireland. When taken together, these two reports provide a comprehensive summary of the demand and supply of skills in Ireland.

This report is comprised of two separate parts. Sections 1-12 examines the number of awards made to learners in Ireland's further and higher education and training system. Following a summary in the Overview section, awards are broken down by field of learning and NFQ level (where applicable).

Section 13 and 14 focus on the existing skills profile of (a) the adult population and (b) recent graduates, drawing on data from Ireland's Labour Force Survey.

Data used in this report

Further education and training (FET) data was obtained from two sources. QQI-FET data is from Quality and Qualifications Ireland's awards database. Only major awards are included as those in receipt of other award types may receive more than one award in any given year. While SOLAS/ETBs are the largest provider types, other providers include Teagasc, Bord Iascaigh Mhara, among others. All QQI-FET data is from 2019.

Other FET data is from the SOLAS/ETBI Programme and Learner Support System (PLSS). It excludes learners in receipt of QQI awards as these were already included in the QQI-FET data. The PLSS is a relatively new data system with a full data set available from 2018 only. Therefore the 'Other FET' category does not figure in the five-year time series analyses in this report. The data reported here is for 2020 (the latest available).

While some of the awards included in the 'Other FET' category have been placed on other countries' National Qualifications Frameworks (e.g. UK-based awards) and can as a result be referenced to the Irish NFQ, other FET awards in this category are not aligned to any European framework; these awards, in this report, are referred to as 'non-aligned FET'.

Third level data was also obtained from two sources. Third level (HEA) data is from the Higher Education Authority's Student Record System. It includes awards made to learners at each of Ireland's universities (including the technical university), institutes of technology and colleges (e.g. RCSI, NCAD and St. Angela's). HEA data in this report spans the five-year period 2014/15 to 2018/2019.

QQI-HE data was obtained from Quality and Qualifications higher education awards data (excluding those made to learners at institutes of technology, which are already included in the HEA data). This data represents the major awards made to learners at private, independent colleges, including Griffith College, Dublin Business School, Hibernia College. It should be noted that these colleges also make awards through other awarding bodies (e.g. UK awarding bodies) for which data is unavailable. All QQI-HE data is from 2019.

In terms of awards, this report also includes data in relation to persons obtaining qualifications from professional bodies including the Irish Auditing and Accounting Supervisory Authority (IAASA) and the Irish Tax Institute.

European comparison data is from the EU database, Eurostat and provides the share of third level graduates by discipline for each EU country as well as the employment rates of persons by education attainment level.

Labour Force Survey data is from the Central Statistics Office and, in the report, focuses on the educational profile of adults in Ireland. It looks at the educational attainment level of adults aged 20 years and over, as well as a subset of this cohort (recent graduates).

In this report, the term **graduate** refers to any individual who has completed a programme, regardless of education level. For example, an upper secondary school graduate refers to a person who has completed second level education and/or obtained a Leaving Certificate qualification or equivalent.

Data Classifications

Education levels

The two main classifications used to analyse education levels in this report are Ireland's National Framework of Qualifications (NFQ) and UNESCO's International System of Education Classification (ISCED) levels of education. The NFQ describes the level of the award obtained on successful completion of a relevant programme, while ISCED levels of education refers to the level of the programme. Table A1 in the Appendix details the award types at each NFQ level, as well as the programmes in the education system that typically prepare learners for such awards.

Fields of education and training

ISCED fields of learning classifications are also used in the analysis. For ease of reading, some field names have been shortened. In addition, in instances where numbers are too small to report, some fields have been grouped. Column 1 of Table 1.1 shows the broad fields of learning according to the ISCED classification, along with an example of specific subjects covered in these areas. Column 2 (Grouped/Abbreviated Fields) shows the fields of education and training that were grouped for the analysis of education awards data.

ISCED field 2013	Grouped/Abbreviated Fields
STEM subjects	
Science & mathematics e.g. biological & biomedical sciences	Science & mathematics
ICT e.g. computer science	ICT
Engineering, manufacturing & construction e.g. civil engineering	Engineering, manufacturing & construction
Health, vet and agriculture	subjects
Health & welfare e.g. healthcare assistant	Health
Agriculture, forestry & veterinary e.g. agricultural science	Agriculture & vet
Other subjects	
Social sciences journalism & information e.g. economics, psychology	Casial asianaa kuusiaasa anal lawu (CCDL)
Business, administration & law e.g. accounting, sales	Social science, business and law (SSBL)
Generic programmes & qualifications e.g. literacy training, Leaving certificate,	
Interdisciplinary programmes (occurs in Labour Force Survey data only)	Generic etc.
Education e.g. primary teaching	Education
Arts & humanities	
e.g. graphic design, English	Arts, etc

Table 1.1 ISCED fields of education and training

2. Awards overview

2.1 Awards

How many awards were made in 2019?

In 2019, approximately 125,700 awards were made in Ireland's further and higher education and training systems. This number comprises learners gaining awards or qualifications in the FET sector (both QQI and non-QQI awarding bodies), the third level sector (both HEA-aided and non-HEA-aided institutes) and through selected professional bodies (e.g. accountancy).

In what fields of learning were most awards made?

As in preceding years, the highest number of awards were made to learners who had studied programmes in the social science, business and law field, followed by the health and welfare field (Figure 2.1). Combined these two fields accounted for 60,600 awards, representing nearly one half (48%) of the total. STEM subjects (i.e. science, ICT and engineering etc) made up more than 27,300 awards (or 22% of the total).



Figure 2.1 Further & higher education awards and prof. qualifications by field (000s), 2019

Source: HEA, QQI (FET & selected HE), SOLAS, IAASA and Irish Tax Institute

* includes some data from 2020 (i.e. PLSS (SOLAS))

At what levels were awards made in 2019?

Figure 2.2 shows the number of awards made by NFQ level in 2019. Third level awards at levels 6-8 on the NFQ accounted for almost half (47%) of all awards made in 2019; the vast majority (nearly 41,000) of these awards were made at level 8, typically for honours bachelor degrees. FET awards, most of which were either on or aligned to the NFQ, made up almost a third, and awards at NFQ levels 9 and 10 made up approximately a fifth. Other non-NFQ-aligned qualifications (e.g. from professional bodies) made up 2%.



Figure 2.2 Awards (000s) by NFQ level and sector, 2019*

Source: HEA, QQI, SOLAS. IAASA, Irish Tax Institute

* PLSS (SOLAS) data refers to the year 2020.

Awards by field and sector

Figure 2.3 shows the number of awards made by field and sector. At almost 10,000, the largest number of FET awards (NFQ and non-aligned awards (i.e. other FET)) was for health and welfare programmes, followed by social science, business and law, with almost 7,000 awards. In the higher education sector (NFQ 6-10), the largest number of awards were made in social science, business and law (with nearly 27,500 awards) and health and welfare (approximately 14,100 awards).

While for most fields of learning, higher education awards outnumber FET awards, the number of FET awards was higher for three fields: generic programmes, agriculture and

vet, and services, where FET sector awards accounted for 84%, 72% and 61% of all awards made in these fields, respectively.



Figure 2.3 Awards (000s) by broad level and field of learning, 2019*

Source: HEA, QQI, SOLAS. IAASA, Irish Tax Institute

* Some FET data from PLSS (SOLAS) refers to the year 2020.

What has changed compared to one year ago?

Changes by NFQ level

Between 2018 and 2019, the number of awards made across the FET and higher education sectors rose by 2%, or nearly 2,000 additional awards (Figure 2.4). The growth was due entirely to increases in the number of awards in the higher education sector (almost 5,900 additional awards), where growth was particularly strong (16%) at level 9 (e.g. masters or postgraduate certs/diplomas). The number of awards in the FET sector declined by nearly 4,200 awards, due mainly to declines of 9% (2,100 awards) and 20% (1,200 awards) at level 5 and in the 'other FET' category respectively.



Figure 2.4 Awards (000s) by NFQ level, 2018 and 2019

Source: HEA, QQI, SOLAS. IAASA, Irish Tax Institute

* PLSS (SOLAS) data refers to the year 2020.

Changes by field of learning

Despite the 2% increase that occurred between 2018 and 2019, the number of awards decreased for five fields: services and agriculture/vet had the largest absolute declines, with falls of approximately 1,500 and 1,000 awards respectively. Smaller decreases occurred for arts/humanities, health/welfare and generic programmes.

However, increases in the remaining fields were more than enough to offset these declines; the growth was particularly strong, in absolute terms, for social science, business and law (SSBL) where there were an additional 3,000 awards made year-on-year. The ICT field had the second largest increase, with nearly 1,300 additional awards (representing an 18% growth).

Figure 2.5 Awards (000s) by field 2018 and 2019



Source: HEA, QQI, SOLAS. IAASA, Irish Tax Institute

* PLSS (SOLAS) data refers to the year 2020.

3. Science Awards

How many awards were made in the science field in 2019?

- There were almost 7,200 awards in science-related subjects in 2019 (Figure 3.1).
- This field accounted for 6% of all awards in 2019.
- Science awards are concentrated in the higher education sector, with 94% of all awards made in 2019 at levels 6-10; the FET sector accounted for just 6%, one of the smallest shares observed across all fields of learning, except the education field.
- The highest number of awards were made at NFQ level 8 (almost 3,800 awards), accounting for over half of all awards made in this field.
- With 400 awards in 2019, science subjects accounted for the largest number of PhDs awards; (the next highest number awards was 315, issued for those who studied programmes in social science, business and law).



Figure 3.1 Awards in science by NFQ level and sector, 2019*

Source: HEA, QQI, SOLAS/ETBI

* Excludes 14 'Other FET' awards

^{**} Higher ed (QQI-HE) awards include only major awards those made to learners at private, independent colleges and other non-HEA aided institutions.

How does this compare to preceding years¹?

- Between 2015 and 2019, the number of science awards grew by a quarter, amounting to an additional 1,445 awards (Figure 3.2).
- The largest increases were at level 8 (+525 awards) and levels 9/10 (nearly 400 additional awards).
- The number of FET awards also grew strongly, albeit from a small base, due to the increases at level 5, where the number of awards almost doubled, going from approximately 200 in 2015 to just over 400 in 2019.
- Between 2018 and 2019, the number of science awards rose by 6%, well above the average of 2%. (This comparison excludes 14 non-QQI awards made to learners in the FET sector).



Figure 3.2 Awards in science related subjects by NFQ level and year, 2015-2019

Source: HEA, QQI

How do the 2019 awards breakdown by detailed field?

Biological, environmental & related sciences: With more than 3,800 awards in 2019, biological, environmental and related sciences accounted for just over one half of all science awards. Of these, approximately 1,200 were for programmes in medical, biomedical and pharmaceutical-related areas, a rise of 18% (or nearly 200 additional awards) compared to the preceding year; the increase was concentrated at NFQ level 6.

¹This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018). PLSS data represents a negligible share of awards for the science field of learning.

Of the awards made in environmental sciences, some specific areas included wildlife/ecology subjects (79 awards), sustainability-related subjects (76 awards), and agriculture/marine environment related subjects (68 awards). The total number of awards in environmental sciences grew slightly (by 3%) when compared to 2018.

Physical sciences: chemistry made up almost one half of the 1,690 awards in the physical sciences, with almost 350 for pharmaceutical related areas. Physics courses led to over 300 awards (mostly at level 8) and earth sciences (e.g. marine or geosciences) courses led to 168 awards. Between 2018 and 2019, the number of awards in physical sciences decreased slightly (24 fewer awards); the declines, however, were confined to the areas of general physical sciences and physics as there were small increases for chemistry and earth sciences.

Maths and statistics: this included 142 awards in data analytics, with more than three quarters at level 9; the number of maths and statistics awards increased each year between 2015 and 2019, with 2019 levels nearly 50% greater than in 2015.

2010° awards	FET		Higher Education				
	NFQ 5	NFQ 6 (HE)	NFQ 7	NFQ 8	NFQ 9/10	Total	
Biological, environmental & related, of which		533	461	1,982	863	3,839	
Biology		16	91	616	139	862	
Biochemistry		54	51	353	144	602	
Environment (includes 0520, 0521, 0522)		7	88	253	264	612	
Physical sciences, of which		57	141	1,174	318	1,690	
Chemistry		50	88	529	154	812	
Maths and statistics		4	3	495	365	867	
Other science not further defined	412		5	55	16	488	
QQI -HE			28	61	176	265	
Total awards	412	594	638	3,767	1,738	7,149**	

Table 3.1 Science awards by sector, NFQ level and detailed field, 2019*

Source: HEA, QQI, SOLAS/ETBI

*Excludes a small number of non-QQI awards made to learners in the FET sector.

How does Ireland compare internationally in terms of the share of third level graduates in this field?

Ireland's share of third level graduates who had studied science subjects was the 5th highest in the EU, at 8%, above the EU 27 average of 6%. Ireland's strong performance in science is due in part to higher than average shares having studied biological sciences (including biochemistry).



Figure 3.3. Science graduates as a share of total third level graduates, 2019

Source: Eurostat (date extracted 12.07.2021)

4. ICT Awards

How many awards were made in the ICT field in 2019?

In order to avoid over-estimating the potential supply of skills to ICT occupations (as outlined in the National Skills Bulletin), some FET awards (e.g. ECDL and basic MS Office awards) were deemed to be more relevant to the social science, business and law field and are therefore excluded from the analysis of ICT awards data in this section.

- There were almost 8,300 awards in ICT-related subjects in 2019, more than a fifth of which were QQI higher education made to learners in colleges outside the HEA-aided sector (Figure 4.1).
- This field accounted for 7% of all awards in 2019.
- ICT awards were concentrated at the higher end of the National Framework of Qualifications, with more than two thirds of the total in this field made at levels 8-10. Only the education and science fields had larger shares at these levels.
- The non-QQI FET category included awards from CompTIA, CISCO, Microsoft, among others.
- Not included in these numbers were over 100 special purpose and minor awards made in the non-HEA aided sector. Of these three quarters were for data analytics.



Figure 4.1 Awards in ICT by NFQ level and sector 2019*

Source: HEA, QQI, SOLAS/ETBI

*Other FET awards data is from 2020

** Higher education (OQ) awards include only major awards those made to learners at private, independent colleges and other non-HEA aided institutions.

How does this compare to preceding years²?

- Between 2015 and 2019, the total number of ICT awards rose by more than a half (or more than 2,600 additional awards) (Figure 4.2). Nearly half of this growth was due to increases in major awards made by QQI-HE to learners at private, independent, third level colleges.
- Growth in the FET sector was particularly strong, albeit from a low base of fewer than 50 awards in 2015, reaching in excess of 600 in 2019.
- Between 2018 and 2019, ICT awards increased by 16% (or by 18% when the FET learner data from the PLSS is included).
- The decline in the number of QQI-FET awards between 2018 and 2019 was offset by an increase in the number of learners in the 'Other FET' category (not illustrated in Figure 4.2), where the number of learners rose to almost 1,000, up from over 500 the previous year.



Figure 4.2 ICT awards by NFQ level 2015-2019

How do the 2019 awards breakdown by detailed field?

• Almost one third (or 2,446) of ICT awards were for software development subjects, with the vast majority at level 8 or above (Table 4.1). The number of software development awards made in higher education grew each year over the period

Source: HEA; QQI

² This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018).

2015-2019, amounting to almost 600 additional awards, an increase of well over a third.

Within IT, a number of specific areas of direct relevance to the skills needs of the economy cannot be identified by ISCED sub-fields alone. The following subject areas were identified by course titles and appear in the data across more than one detailed field.

- Security: there were approximately 600 awards security related awards (e.g. cyber, network etc) in the further and higher education sector.
- Games: following several years where the number of awards either remained unchanged or declined slightly, the number in 2019, at 160 awards, reached their highest level at any point over the period 2015-2019.
- Artificial intelligence: there were 125 awards in higher education in 2019, the first year courses specifically dedicated to AI featured in the data (at course name level).
- Data analytics: there were almost 1,100 awards for courses in data analytics, with the vast majority (over 800) made to learners at private independent third level colleges. In addition, there were 142 data analytics awards also captured in the mathematics and statistics field of learning, examined in Section 3.

2019		FE	ΞT			Total			
	NFQ 3-4	NFQ 5	NFQ 6	Other FET	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	
Computer use	31	29		200	19	152	199	32	662
Database/network design & admin	10	234	54	135	12	92	128	164	829
Software development, etc		279	94	159	20	196	978	720	2,446
Other	4		14	361	91	196	1,070	847	2,583
QQI-HE					35	120	706	903	1,764
Total awards	45	542	162	855	177	756	3,081	2,666	8,284

Table 4.1 ICT awards by sector, NFQ level and detailed field, 2019*

Source: HEA, QQI, SOLAS/ETBI

*Other FET awards refer to the year 2020

How does Ireland compare internationally in terms of the share of third level graduates in this field?

In 2019, 8% of third level graduates in Ireland had studied ICT related subjects, the second highest share in the EU.



Figure 5.3 ICT graduates as a share of third level graduates in EU 27 countries, 2019

Source: Eurostat (date extracted 12.07.2021)

5. Engineering, Manufacturing & **Construction Awards**

How many awards were made in the engineering, manufacturing and construction field in 2019?

- There were over 11,800 awards in engineering, manufacturing and construction • related fields in 2019, with approximately 9,000 (76%) in engineering (including manufacturing) and 2,800 (24%) in construction (Figure 5.1).
- This field accounted for 9% of all awards made in 2019. •
- Level 8 made up for the largest number of awards, with nearly 2,000 in engineering/manufacturing and over 1,000 in construction. However, the share of awards at this level in engineering, manufacturing and construction, at 25%, was below the average across all fields (33%).
- In contrast, this field had the largest number of level 6 FET awards. In fact, • engineering, manufacturing and construction accounted for a guarter of all level 6 FET awards made in 2019, mostly due to the number of qualifying apprentices achieving craft awards (e.g. electrical, carpentry, motor mechanics, etc.).

Construction Engineering 3,000 3,000 2,500 2,500 2.000 2.000 1,500 1.500 1.000 1.000 500 500 \cap AFOO (FET) SF0° ×100/20 0 AFOOHEN NFO15HET NF09/20 4500/1 440°

Figure 5.1 Awards in the engineering, manuf. & construction sub-field by NFQ level, 2019 *

Source: HEA, QQI & SOLAS / ETBI

■ Higher Education (HEA) ■ Higher Education (QQI-HE**)

*Other FET awards data is from 2020

Honaligh

** Higher education awards include approximately 150 level 7 major awards made by QQI to learners at private, independent colleges and other non-HEA aided institutions.

FET (QQI)

Other FFT

How does this compare to preceding years³?

- Between 2015 and 2019, the number of engineering, manufacturing and construction awards rose by a quarter (an additional 2,100 awards). The growth was driven mainly by increases at FET level 6 (569 additional awards), level 7 (567 additional awards) and level 9 (514 additional awards).
- Growth (7%) also occurred when compared to 2018, with almost 700 additional awards year-on-year. However, when SOLAS data for the Other FET sector (i.e. non-QQI FET data) is also considered, the total number of awards grew by just (1%) (not illustrated in graph).
- Engineering/manufacturing sub-field: between 2018 and 2019, the number of engineering/manufacturing awards rose by 2% but declined by 4% when non-QQI FET awards from the Other FET category are included (not illustrated in the graph). Despite growth in the higher education sector, the number of FET awards (both QQI and non-QQI) declined, mostly for welding, metal fabrication and HGV mechanics.
- Construction sub-field: between 2018 and 2019, the number of construction awards grew by almost a quarter (23%), amounting to approximately 500 additional awards; the increases were observed across all NFQ levels. However, once non-QQI FET awards from the Other FET category are included, the year-on-year growth was 18% because while QQI-FET awards grew slightly, the number of learners on Other FET programmes declined (not illustrated in the graph).



Figure 5.2 Awards in the engineering/manuf. & construction by NFQ level, 2015-2019

Source: HEA, QQI

³This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018).

How do the 2019 awards breakdown by detailed field?

Engineering/manufacturing:

- Of the almost 8,800 awards made in engineering and manufacturing related fields (including 139 made by QQI in higher education), the largest detailed field was mechanics, with 1,900 awards; about half of these were made to learners in the FET sector, in particular to those who had taken courses leading to industry certification rather than QQI awards (i.e. within the Other FET category); these were typically for welding and related subjects.
- Combined electrical and electronic engineering accounted for nearly 2,600 (or 29%) of all engineering related awards. Electrical engineering awards were dominated by craft-electrical awards (FET NFQ level 6), made to qualifying apprentices (i.e. electricians), while electronic engineering awards were concentrated at level 7.

Construction:

- Civil and building engineering made up over 800 awards at levels 8-10. While the number of awards had been in declining until recently, small gains made in 2018 accelerated in 2019, when the number of awards rose by more than a quarter, to reach their highest levels in several years. Over 100 awards were made in quantity surveying, the highest number over the period 2015-2019.
- Architecture and town planning: there were over 500 architecture related awards in 2019; of these, over 180 awards were made to learners on one of the five RIAI accredited programmes in architecture⁴, the highest number observed in recent years.

⁴ https://www.riai.ie/careers-in-architecture/education/accredited-programmes; TU Dublin, UCD, UL, WIT and CIT/UCC

		FE	ΞT			Total			
	NFQ 1-4	NFQ 5	NFQ 6	Other FET	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Total
Engineering & manufacturing, <i>inc</i>	283	349	1441	856	521	1,996	1,959	1,482	8,887
Chemical					40	83	119	262	504
Electricity & energy	196	0	595	42	42	90	159	66	1,190
Electronic	12	22	43		112	637	425	117	1,368
Mechanics & metal	16	50	601	705	46	341	398	101	1,903
Food processing					61	58	188	106	413
Construction, inc	84	158	396	17	151	512	1,031	464	2,813
Architecture etc	20	74	7	10	4	40	305	218	678
Civil & building eng.	64	84	389	7	142	446	639	180	1,951
QQI-HE						139			139
Total awards	367	507	1,837	873	672	2,647	2,990	1,946	11,839

Table 5.1 Engineering/manuf. & construction awards by NFQ level & detailed field, 2019*

Source: HEA, QQI, SOLAS/ETBI

*Other FET awards refer to the year 2020

How does Ireland compare internationally in terms of the share of third level graduates in this field?

In 2019, the share of third level graduates who had studied engineering, manufacturing or construction related subjects was 13%, well below the EU 27 average of 19%. The comparatively low share of graduates in this field was due to lower than average shares for engineering and manufacturing fields (10% for Ireland, compared to 16% for the EU 27); the share of construction related graduates, in contrast, was on a par with the EU 27 average of 3%.



Figure 5.3 Engineering & construction graduates as a share of third level graduates, 2019

Source: Eurostat (date extracted 12.07.2021)

6. Social Science, Business & Law Awards

How many awards were made in the SSBL field in 2019?

- There were 36,500 awards in social science, business and law (SSBL) related subjects in 2019.
- This field is the largest field in terms of the number of awards made, making up 29% of all awards in 2019.
- Almost two thirds (63%) were made at level 8 or above (nearly 23,000 awards)
- With 3,800 QQI-HE awards in 2019, private, independent third level colleges, made up a tenth of all awards in this field.
- Almost a fifth of SSBL awards were in the FET sector, making up 6,900.⁵
- Approximately 2,000 individuals obtained qualifications through professional bodies (i.e. accountancy and tax qualifications).



Figure 6.1 Social science, business & law awards by NFQ level and sector, 2019*

■ Other FET ■ QQI-FET ■ Higher education (HEA) ■ Higher ed (QQI**) ■ Accountancy/Tax industry bodies

Source: HEA, QQI, SOLAS/ETBI, IAASA, Irish Tax Institute

* Other FET awards data is from 2020

** Higher ed (QQI-HE) awards include only major awards made to learners at private, independent colleges and other non-HEA aided institutions.

⁵The Other FET sector includes approximately 800 learners on programmes leading to ECDL and basic MS Office certification; awards made to these learners are categorised in the SOLAS/ETBI PLSS as ICT awards in line with the ISCED field of learning classification. However, for the purposes of this report, we have reclassified them to include them in the SSBL broad field and the 'secretarial and office work' detailed field. This prevents a situation where these 800 awards may otherwise be counted as potential skills for ICT related occupations.

How does this compare to preceding years⁶?

- Between 2015 and 2019, the number of SSBL awards grew strongly by 15% (over 4,400 additional awards).
- Much of this growth occurred between 2018 and 2019, when the number of awards rose by 8%. (When PLSS data is included (not illustrated in graph), the growth was slightly higher at 9%).
- The increases in awards made in this field were due to rises in the number of people gaining awards in higher education, particularly at level 9 (+25%, when compared to 2018).
- In the FET sector, the number of QQI awards declined by approximately 1,200, when compared to 2015 with a fall observed across each NFQ level (or group of levels). FET-QQI awards also fell between 2018 and 2019. However, this decline was offset by increases in the number of learners achieving awards made in the 'Other FET' category (not illustrated in the graph).
- The number of learners gaining qualifications from professional bodies (accountancy and taxation) increased by 15% (or 230 individuals) in 2019 compared to 2015.



Figure 6.2. Social science, business & law (SSBL) awards by NFQ level 2015-2019

Source: HEA, QQI

⁶This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018).

How do the 2019 awards breakdown by detailed field?

- With 7,000 awards, management and administration was the largest detailed field, accounting for a fifth of the total SSBL awards. Most were in the higher education sector, particularly at postgraduate level (NFQ 9).
- Secretarial and office work awards made up over 3,000 awards and were made almost exclusively in the FET sector. Approximately 1,700 of these awards were made in business or office administration (NFQ 5 and 6), with most of the remainder being for digital skills (e.g. word processing) made in the 'Other FET' category.
- Accounting/tax related awards made up over 1,900 awards, with a further 2,100 qualifiers through professional bodies, to give a total of 4,000 awards in 2019. In addition, there were approximately 1,000 awards, categorised within the broader business, administration and law field, who had studied for honours bachelor degrees in commerce (e.g. BComm and BComm international qualifications) although not all BComm graduates go on to train as accountants.
- There were approximately 1,000 awards in economics (all from the higher education sector); however, as many learners opt to study economics as part of an arts degree (and therefore not captured in this field of learning), this number is likely to be the minimum number of awards for economics.

		I	FET		Higher Education					
2019 awards	NFQ 1-4	NFQ 5	NFQ 6	Non- aligned FET	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	Prof. bodies	Total
Social sciences & journalism, inc		995	16		122	372	2459	1975		5,939
Economics						8	802	233		1,043
Psychology					36	74	508	371		989
Business, admin & law	601	2,943	1,102	1,249	1,375	2,142	8,088	7,137		24,637
Accounting & tax			608	29	39	260	672	320		1,928
Finance				8		1	236	613		858
Management& admin	7	115	415	266	580	1,019	1,755	2,879		7,036
Marketing		74		84	73	200	624	766		1,821
Secretarial**	435	1,647	79	862	6	3				3,032
Sales	159	54			73	53	52	50		441
Law		143			33	61	1,337	617		2,191
QQI -HE awards					95	390	2,135	1,199		3,819
Social sciences, & journalism						77	260	77		409
Business & admin					95	318	1,875	1,122		3,410
Professional (accounting + tax)									2,105	2,105
Total awards	601	3,938	1118	1249	1592	2904	12682	10311	2,105	36,500

Table 6.1 Social science, business and law awards by NFQ level and detailed field, 2019

Source: HEA, QQI, SOLAS/ETBI, IAASA and Irish Tax Institute

*Other FET awards refer to the year 2020

**Includes approximately 800 learners from the ICT field, which were recategorized for the purposes of this report in the SSBL field (Secretarial and office work) to avoid overestimating the potential supply of skills to ICT occupations.

How does Ireland compare internationally in terms of the share of third level graduates in this field?

Combined, the total share of social science, business and law graduates in Ireland was 32%, only marginally lower than the EU 27 average of 34%.



Figure 6.3 SSBL graduates as a share of third level graduates, 2019

Source: Eurostat (date extracted 12.07.2021)

7. Health and Welfare Awards

How many awards were made in the health & welfare field in 2019?

- There were 24,100 awards in health and welfare subjects in 2019 (Figure 7.1).
- With 19% of total awards in 2019, the health and welfare field was the second largest field in terms of numbers awards made; only social science, business and law had a higher share at 29%.
- With more than 8,200 awards in 2019, the highest number of awards in this field were made at level 5 (e.g. healthcare support, early childhood care and education), followed by level 8, at nearly 7,300 awards (e.g. nursing, medical or therapy programmes).
- Of the postgraduate awards (typically NFQ 9/10), nearly 300 were for PhDs.
- Almost all awards in this field were either on or aligned with the NFQ; most FET awards were made by QQI-FET, although nearly 200 were made by other awarding bodies (e.g. BTEC Health and social care award) and were aligned to the NFQ via other National Qualification Frameworks⁷.



Figure 7.1 Awards in health and welfare, by NFQ level, 2019

Source: HEA, QQI-FET, QQI-HE & SOLAS

*Other FET awards data is from 2020

^{**} Higher ed (QQI-HE) awards include only major awards made to learners at private, independent colleges and other non-HEA aided institutions.

⁷ https://www.qqi.ie/Downloads/Qualifications%20can%20Cross%20Boundries%202019.pdf

How does this compare to preceding years⁸?

- Between 2015 and 2019, the number of health and welfare awards rose by almost 700, or 3%.
- When compared to 2018 numbers, awards declined slightly by 2%.
- The year-on-year declines between 2018 and 2019 were due to a fall in the number of learners achieving awards at NFQ levels 1-7; declines were strongest for awards such as health service skills and early childhood care and education (level 5 and level 6 FET), youth studies (level 6), and counselling (level 7).
- In contrast, there were increases at levels 8 (+2%) and particularly at level 9 (+6%, or 200 additional awards).



Figure 7.2. Health and welfare awards by NFQ level 2015-2019

Source: HEA; QQI-FET & QQI-HE

*Awards at levels 1-4 amounted to fewer than 50 each year.

How do the 2019 awards breakdown by detailed field?

Approximately 60% of awards in this broad field were for health related studies (e.g. medical and nursing); with the remaining 40% for welfare related subjects (e.g. social work, childcare etc).

⁸ This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018).

Nursing & caring: more than one half (57%) of awards in nursing and caring were made in the FET sector, typically for areas such as healthcare support (2,771 awards), nursing studies (1,194 awards), or health services skills (856, awards). A further 25% were made at level 8, the minimum level requirement for entry to nursing occupations.

Childcare and youth work: this detailed field includes awards made to those working (or intending to work) in early years education. There were 3,571 awards in the FET sector for early childhood care and education related areas (at levels 5 and 6). There were also approximately 1,000 awards made for early childhood education in the higher education sector.

Of note, under a separate field of learning (Education awards – examined in section 10 of this report), there were almost a further 300 level 7 and level 8 awards in early childhood care and education, as well as nearly 900 level 6 awards for leadership/inclusion in early years settings. This brings the total number of early childhood care and education related awards at levels 5-9 across the two broad fields of learning to almost 5,800.

		FET			Higher Education					
	NFQ 1-4	NFQ 5	NFQ 6	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	lotal		
Health, including		4,821	72	355	589	5,218	3,290	14,345		
Medicine				1	202	1,294	517	2,014		
Nursing & caring		4,821	72	3	20	2,176	1,432	8,524		
Dental studies				28	76	104	16	224		
Pharmacy				90	51	191	226	558		
Welfare, including	29	3,393	1652	540	1,116	1,895	463	9,088		
Childcare & youth	29	2,222	1,430	187	676	807	72	5,423		
Social work etc.		1,063	139	175	432	1,065	338	3212		
QQI-HE				3	209	184	253	649		
Total	29	8,106	1,641	898	1,914	7,297	4,006	24,082		

Table 7.1 Health and welfare awards by NFQ level and detailed field, 2019*

Source: HEA, QQI, SOLAS/ETBI

*Other FET awards refer to the year 2020

How does Ireland compare internationally in terms of the share of third level graduates in this field?

Ireland's share of third level graduates who had studied health/welfare programmes was higher than the EU average, driven mainly by higher shares in nursing and in welfare; Ireland's share of medical graduates was below the EU average.





Source: Eurostat (date extracted 12.07.2021)

8. Services Awards

How many awards were made in the services field in 2019?

- There were almost 8,200 awards in services related subjects in 2019, making up 7% of the total in FET and higher education.
- At nearly 2,300, this field had the highest number of learners achieving awards that were neither on nor aligned to the NFQ; these were typically made by industry bodies (.e.g. Pre-Hospital Emergency Care Council, Road Safety Authority, etc).
- The FET sector accounted for nearly two thirds (61%) of services awards; only the agriculture/vet and generic programmes fields had a higher share of FET awards.
- With nearly 2,400 awards, level 5 had the largest number of awards; these include awards made by QQI and a small number made by other awarding bodies whose qualifications are aligned to the UK's National Qualification's Framework⁹. These awarding bodies include City and Guilds and CIBTAC, among others.
- More than a fifth of services awards were made at levels 6-7 in higher education, the second highest (after engineering, manufacturing and construction).



Figure 8.1. Awards in the services field of learning NFQ level 2019*

Source: HEA, QQI-FET, QQI-HE & SOLAS

*Other FET awards data is from 2020

** Higher ed (QQI-HE) awards include only major awards made to learners at private, independent colleges and other non-HEA aided institutions.

⁹ SOLAS assigned an NFQ level to non-QQI awards, based on the document 'Qualifications Can Cross Boundaries'. https://www.qqi.ie/Documents/Qualifications%20can%20cross%20boundaries%20June%202017.pdf

How does this compare to preceding years¹⁰?

- Between 2015 and 2019, the number of services awards fell by 17% (or 1,200 fewer awards).
- Declines occurred each year over the period 2015-2019; however, the strongest fall occurred between 2018 and 2019, when the number of awards made declined by 9% year-on-year (amounting to nearly 600 fewer awards).
- Much of the decline observed between 2015 and 2019 was due to a fall in the number of awards at NFQ level 5 made for sports, recreation and exercise, followed by hairdressing.
- Not included in Figure 8.2 are 2,500 'Other FET' awards (i.e. non-QQI-FET awards), which declined by nearly 900 in the two most recent years. The largest declines were for learners on first aid responder courses (-62%, or nearly 500 fewer awards).



Figure 8.2 Services awards by NFQ level 2015-2019

Source: HEA; QQI-FET & QQI-HE

¹⁰ This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018).

How do the 2019 awards breakdown by detailed field?

In terms of detailed fields, sports and hotel & catering had the largest number of awards at almost 2,000 (or 23%) each in 2019. More than half of sports awards were made in the FET sector (mostly at level 5), while hotel & catering awards were distributed evenly between the FET (at levels 1-4) and higher education sectors (levels 6 and 7).

Transport services: of the non-NFQ aligned FET awards made in this detailed field, nearly 300 were for driving skills (e.g. HGV, delivery driver) and a further 100 were for forklift operations.

Occupational health and safety awards in the FET sector relate primarily to learners on First Aid Responder courses.

		F	-ET	Higher Education				Total	
	NFQ 1-4	NFQ 5	NFQ 6 (FET)	Other FET	NFQ 6	NFQ 7	NFQ 8	NFQ 9/10	
Personal services, inc	800	2,277	527	413	447	864	861	127	6,316
Hair & beauty	351	904	131	106					1,492
Hotel, rest & catering	329	293	72	269	325	361	213	57	1,919
Sports	120	787	216	10	63	317	370	44	1,927
Travel, tourism, leisure	0	293	76	28	59	186	278	26	946
Transport services	0	22	9	516	1	55	63	7	673
Security services	4	64	3	0	73	202	35	17	398
Occupational health & safety			9	363	28	132	132	95	759
Non-HEA(QQI-HE)					2	23		7	32
Total	804	2,363	548	1,292	551	1,276	1,091	253	8,178

Table 8.1 Services awards by NFQ level and detailed field, 2019*

Source: HEA, QQI, SOLAS/ETBI

*Other FET awards refer to the year 2020

How does Ireland compare internationally in terms of the share of third level graduates in this field?

At 4%, the share of third level graduates in Ireland who had studied services-related subjects is slightly lower than the EU 27 average (5%). While Ireland had the highest share of hotel & catering graduates (1%), its share in other detailed fields (e.g. sports, travel & tourism, security services) was lower than the EU 27 average.





Source: Eurostat (date extracted 12.07.2021)

9. Agriculture & Vet Awards

How many awards were made in agriculture and vet in 2019?

- There were almost 4,400 awards in agriculture/vet related subjects in 2019.
- This field made up just 3% of all awards made in 2019, the second smallest field of learning in terms of awards (after generic programmes).
- As in previous years, over 1,800 awards (more than one half of all QQI-FET major awards in this field) were made to learners at Teagasc centres, unlike all other fields of learning where most FET awards were made to learners at Education and Training Boards (ETBs).
- Agriculture/vet awards are concentrated in the FET sector, which accounted for 57% of all awards in this field in 2019; only the generic programmes field had a higher share in FET (at 81%).



Figure 9.1. Agriculture & vet awards by NFQ level, 2019

Source: HEA, QQI-FET, QQI-HE

Excludes a small number (<10) FET awards in the 'Other FET' category

How does this compare to preceding years¹¹?

• Although the number of awards made in this field grew each year between 2015 and 2018, they declined by nearly a fifth in 2019.

¹¹ This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018).

- The 2018-2019 decline was especially strong at level 5, where the number of awards made fell by 28% (nearly 1,000 fewer awards). Almost all of the fall was for the 'agriculture' award title.
- The number of awards at level 8 increased by 10% between 2018 and 2019, the only level to experience growth in this field year-on-year. However, as the numbers at this level tend to be relatively small, this translated into just 57 additional awards.



Figure 9.2. Agriculture and veterinary awards by NFQ level 2015-2019

How do the 2019 awards breakdown by detailed field?

Two thirds of all awards made in this field were for agriculture related studies; of these three quarters were made in the FET sector. Many of these FET awards are likely to be related to the requirements for Government (Department of Agriculture and the Marine) payments, such as the Young Farmers Scheme, where farmers may receive a payment, provided they meet certain conditions, including holding an education qualification in agriculture.

Veterinary awards in the FET sector related mostly to animal care/science. In higher education, awards were mostly for veterinary medicine or veterinary nursing.

Source: HEA, QQI-FET, QQI-HE

		FET			Higher Education				
	NFQ 1-4	NFQ 5	NFQ 6 (FET)	Level 6 (HE)	NFQ 7	NFQ 8	NFQ 9/10	Total	
Agriculture		1,772	371	46	189	438	125	2,941	
Horticulture	131	197	51	7	49	26		461	
Forestry		10	6		13	21		50	
Veterinary	30	511	68		86	162	57	914	
Total	161	2,490	496	53	337	647	182	4,366	

Table 9.1 Agriculture/Vet awards by NFQ level and detailed field, 2019

Source: HEA, QQI, SOLAS/ETBI

How does Ireland compare internationally in terms of the share of third level graduates in this field?

At just over 1% in 2019, the share of graduates in Ireland who had studied agriculture and vet was one of the lowest in the EU (20th out of 27 countries, as in 2018), although few countries had high shares in this field: the EU average was 2%, while the countries with the largest shares (Romania, Hungary and Croatia) had 4%.



Figure 8.3 Agriculture & vet graduates as a share of third level graduates, 2019

Source: Eurostat (date extracted 02.07.2021)

10. Education Awards

How many awards were made in education in 2019?

- There were over 7,800 awards in education related subjects, making up 6% of all awards made in the FET and higher education sectors in 2019.
- Almost all awards made in this field were higher education awards partly because entry to primary and post-primary teaching occupations requires at least a level 8 qualification. FET awards made to those studying early childhood care and education are categorised in a separate field of learning (health and welfare).
- Nearly half (48%) of all education-related awards were made at levels 9 or 10, by far the highest share across all fields of learning.
- Almost all education awards were either on or aligned with the NFQ.
- Learners at private, independent colleges accounted for nearly 900 awards in this field, the vast majority at postgraduate level.



Figure 10.1 Awards in the education field of learning, by NFQ level 2019 *

Source: HEA, QQI

*Other FET awards data is from 2020; excludes a small number (<10) FET awards in the 'Other FET' category

^{**} Higher ed (QQI-HE) awards include only major awards those made to learners at private, independent colleges and other non-HEA aided institutions.

How does this compare to preceding years¹²?

- Between 2015 and 2019, the number of awards in the education field of learning grew strongly (by more than 70%, or nearly 3,300 awards).
- The number of awards in 2015 had been particularly low due to changes in the duration of teacher education programmes; as a result, there was a reduced number of graduates that year, followed by a substantial rise (of 38%) the following year (in 2016).
- Between 2018 and 2019, the number of awards increased by 10%; there were increases for each NFQ level, with the strongest (in absolute terms) occurring for level 8 and above. The increases at these levels occurred in the HEA sector only; QQI higher education awards declined by 6% between 2018 and 2019.



Figure 10.2 Awards in education by NFQ level 2015-2019

Source: HEA, QQI-FET and QQI-HE

How do the 2019 awards breakdown by detailed field?

The highest number of awards in 2019 was for the education science field, which included courses in education management/leadership and special needs education. However, classification issues mean that some professional masters in education (teaching qualification) and religious studies awards were also included in this field.

The awards made in the training for pre-school teachers sub-field were all made in the higher education sector and are in addition to the nearly 4,600 early childhood care and

¹² This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018).

education awards (FET and HE) which were captured earlier in this report in the health and welfare section. Most of the level 6 awards in this subfield for leadership/inclusion in early years education.

	FET	Higher Education					
	NFQ 5 & 6	NFQ 6 (HE)	NFQ 7	NFQ 8	NFQ 9	NFQ 10	Total
Education n.e.c.	64	42	260	85	373	4	828
Education science		4	36	427	1,402	68	1,937
Training for pre-school teachers		902	53	242			1,197
Teacher training without subject specialization		21	9	993	378		1,401
Teacher training with subject specialization			4	786	786	8	1,584
QQI - HE		4	43	75	771		893
Total	64	973	405	2,608	3710	80	7,840

Table 10.1 Education awards by NFQ level and detailed field, 2019

Source: HEA, QQI, SOLAS/ETBI

*Other FET awards refer to the year 2020

How does Ireland compare internationally in terms of the share third level graduates in this field?

At 9% in 2019, Ireland's share of third level graduates who had studied education-related subjects was on a par with the EU 27 average (also 9%), ranking 13th out of 27 countries.





Source: Eurostat (date extracted 12.07.2021)

11. Arts and Humanities Awards

How many awards were made in arts and humanities in 2019?

- There were nearly 13,700 awards in arts and humanities subjects in 2019, accounting for 11% of all FET and higher education awards.
- More than two thirds (69%) of arts and humanities awards were made in the higher education sector, the third highest share (after education and science) across all fields.
- Compared to other fields, arts and humanities had a relatively large share (9%) of awards at FET level 6: only engineering/construction and agriculture had higher shares (at 16% and 11% respectively).
- Unlike most other fields of learning, the majority of level 6 FET awards were made, not by QQI, but by other bodies (e.g. Pearson) whose awards are aligned to the National Framework of Qualifications, via their inclusion on the UK National Qualifications Framework.
- This field is the only field where learners enrolled in the FET sector obtained higher education awards, although the numbers involved are relatively small (62 awards in 2019); awards were made by non-QQI awarding bodies (e.g. UK universities).



Figure 11.1 Arts & humanities awards by NFQ level and awarding body type, 2019*

Source: HEA, QQI-FET, QQI-HE & SOLAS

*Other FET awards data is from 2020

** Higher ed (QQI-HE) awards include only major awards those made to learners at private, independent colleges and other non-HEA aided institutions.

How does this compare to preceding years¹³?

- Between 2015 and 2019, the number of awards in arts and humanities declined by 4% (approximately 600 fewer awards).
- Arts and humanities was one of only two fields of learning to experience a decline between 2015 and 2019; (the services field also decreased (by 17%)).
- Most of the 2015-2019 decline occurred in 2017 when the number of awards fell by 7% year-on-year, although smaller falls of 2% and 1% respectively have also occurred in each subsequent year.
- The 1% fall that occurred between 2018 and 2019 was due mainly to a 3% decrease in the FET sector (all levels) and a 2% fall at level 8 in higher education, Level 9/10 awards, in contrast, increased slightly (+74 awards).
- However, once learners in the Other FET category are included in the data, the year-on-year decline for this field was even stronger, at -3% (not illustrated in graph), resulting in nearly 500 fewer awards for the field overall.



Figure 11 2 Awards in arts and humanities by NFQ, 2015-2019

Source: HEA, QQI-FET, QQI-HE

How do the 2019 awards breakdown by detailed field?

More than a third (over 4,800 awards) were in the arts & humanities n.e.c field, where the subject was unspecified (e.g. Bachelor of Arts or BA (hons) degree) or may span both arts

¹³ This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018).

and humanities subjects (e.g. music and English). The majority of these awards were in the higher education sector.

Audio visual and media awards were almost evenly spread across the FET and higher education sectors and included awards for studies in areas such as film & TV, music and media production.

- There were 380 awards in animation related areas, including over 270 non-QQI awards made to learners in the FET sector.
- There were over 200 awards for studies in graphic design, with almost equal numbers in the FET and higher education sector.

Almost all awards in humanities related fields (i.e. history, philosophy and languages) were made in the higher education sector.

	FET			Higher Education					
	FET 1-4	FET 5	FET 6	Other FET*	NFQ 6 (HE)	NFQ 7	NFQ 8	NFQ 9/10	Total
Arts & humanities n.e.c.	1,089	186	4		110	72	3,004	354	4,819
Audio-visual & media		736	562	62	111	198	741	194	2,604
Fashion, interior and industrial design		54	192		2	99	410	85	842
Fine, music & performing arts (inc, handicrafts)		880	496		18	91	959	291	2,735
History & archaeology					59	68	260	284	671
Philosophy & religion					3	8	62	139	212
Languages (inc acquisition, literature & linguistics)				25	72	216	820	467	1,600
QQI -HE						96	99	13	208
TOTAL	1,089	1,856	1,254	87	375	848	6,355	1,827	13,691

Table 11.1 Education awards by NFQ level and detailed field, 2019 *

Source: HEA, QQI, SOLAS/ETBI

*Other FET awards refer to the year 2020

How does Ireland compare internationally in terms of the share of third level graduates in this field?

At 11%, Ireland had the sixth highest share of third level graduates in 2019 who had studied arts and humanities programmes, above the EU average of 10%. In 2018, Ireland had ranked third out of 27 EU countries in terms of its share of graduates in this field.



Figure 11.3 Arts/humanities graduates as a share of third level graduates, 2019

Source: Eurostat (date extracted 12.07.2021)

12. Generic Programmes Awards

How many generic awards were made in 2019?

- The generic programmes field of learning is the smallest field in the FET and higher education system, largely because most education/training programmes beyond the Leaving Certificate have a greater focus on a specific subject or group of subjects.
- This field made up 3% of all awards made in 2019, with approximately 3,800 awards; the vast majority of awards were made at levels 1-3 in the FET sector. There were no awards at levels 5 or 6 (FET).
- In FET, awards were for areas such as general learning, employability skills, and communication skills.
- Higher education awards amounted to approximately 700, and included courses such as continuing education access, transition to higher education, community studies and open learning.

Figure 12.1 Awards in the generic programmes field by NFQ, 2019*



Source: HEA, QQI, SOLAS/ETBI

*Data for the Other FET category is from 2020

How does this compare to preceding years¹⁴?

- The number of awards made for generic programmes rose by 16% between 2015 and 2019, with most of the growth occurring between 2018 and 2019.
- Between 2018 and 2019, there were an additional 155 awards in the FET sector, with increases at NFQ levels 1, 2 and 4
- The increase observed in higher education awards may also be due to some field classification issues.



Figure 12.2 Generic programmes awards by NFQ level, 2015-2019

Source: HEA and QQI-FET

International Comparison

The vast majority of EU countries had no third level graduates in this field. Ireland was one of only four countries to do so. In fact, Ireland accounts for 96% of all EU-27 graduates in this field, with much smaller shares for Czechia, Lithuania and Malta.

¹⁴ This analysis excludes PLSS data, for which a comparable time series is unavailable (PLSS was fully rolled out from 2018).

13. Education profile of adults in Ireland

In this section we examine the educational profile of Ireland's adult population, using data from the CSO's Labour Force Survey (LFS). An individual's level of education refers to the highest level of education achieved; if for example a person first qualifies as an electrician (level 6 certificate) and later progresses to achieve an honours bachelor degree (level 8), their level of education is classified as level 8. On the other hand, if a person first achieves an honours degree (level 8) in arts/humanities, but later completes a PLC course in business studies (level 6), their education level is nonetheless captured as being at level 8.

What is the education level of adults in Ireland?

In quarter 2 2022, there were 3.37 million adults aged between 20 and 74 years. Of those who stated their highest level of education attained (nearly 3.27 million persons),

- approximately 1.28 million people (or 39% of all 20-74 year-olds) held second level qualifications, made up of 510,000 persons with at most a level 3 award (e.g. Junior Certificate) and 766,000 persons with a level 4/5 award (e.g. Leaving Certificate).
- FET qualification holders (spanning levels 4-6) accounted for 450,000 persons (14% of the total age cohort)
- third level qualification holders (spanning level 6 (HE) level 10) made up 1.54 million persons (47%); the largest numbers were at level 8, which had 763,200 persons, representing nearly a quarter (23%) of all 20-74 year-olds.

Figure 13. 1 Adults aged 20-74 years by highest level of education attained (000s), Q2 2021



Source: SLMRU analysis of CSO (LFS) data Excludes observations where NFQ level is not stated

How does the education profile of adults vary by age?

The educational profile of the population differed considerably by age group (Figure 13.2). With the exception of persons aged 20-24 years (for whom full-time education may still be ongoing), the older the age group, the lower the education attainment level:

- over one half (52%) of persons aged between 25 and 29 years held a qualification at level 8 or above; this was more than double the share for those aged 60-64 years, where 22% held level 8 or higher qualifications
- conversely, while 6% of 25-29-year-olds held at most a level 3 qualification (e.g. a Junior Certificate), the share is nearly five times greater (29%) for 60-64 year-olds.

Given the educational attainment observed amongst the younger age cohorts, it can be expected that Ireland's educational profile will continue to shift towards the higher levels of the NFQ in the years to come.



Figure 13.2 Education profile by NFQ level and 5-year age group, quarter 2, 2022

Source: SLMRU analysis of CSO (LFS) data.

Excludes observations where NFQ level is not stated

How does the education profile of adults differ by region?

The share of those holding higher education qualifications (NFQ levels 6-10) was by far the highest in the Dublin region, at 55% (Figure 13.3a), well above the national average of 47%. The lowest shares were in the Border and Midland regions, where 38% of adults held higher education qualifications.

For FET qualifications (NFQ levels 4-6), the shares were highest in the Midland and Mid-West regions where 16% of 20-74-year-olds had attained qualifications at this level. At nearly 11%, Dublin had the smallest share of adults whose highest educational attainment was a FET qualification.

Figure 13.3 Shares of qualification holders by region, higher education and FET, Q2 2021





b. Share of FET qualification holders



Source: SLMRU analysis of CSO (LFS) data

How does the education profile of adults vary by gender?

The share of females with qualifications at the higher end of the National Framework of Qualifications was greater than that of males: in quarter 2 2021, more than one half of females aged 20-74 years held at least a level 6 higher education qualification, compared to nearly 44% of males. In contrast, males have larger shares of those with qualifications at levels 1-3 and levels 4/5 compared to their female counterparts: more than two fifths (43%) of males held at most a Leaving Certificate or equivalent, compared to over a third (35%) for females.

The share of FET qualification holders for males and females was similar at 14%, although this masks gender differences, not illustrated in the graph, that occurred within FET at levels 4/5 (which accounted for 9% of all females but only 4% of all males in the relevant

age cohort) and FET level 6 (which accounted for 5% of all females but 10% of all males). In fact, at level 4/5 (FET), females made up 146,700 persons, or 71% of the total at this level. In contrast, at level 6 (FET) females made up 77,900 persons, or 32%.

Figure 13.4 Males & females (aged 20-74 years) by highest level qualification attained, Q2 2021



Source: SLMRU analysis of CSO (LFS) data

Excludes observations where NFQ level is not stated

How does labour force participation vary by NFQ level?

With the exception of FET level 6 qualification holders, the higher the educational attainment, the greater the labour force participation rate of 20-74 year olds. This pattern holds for both males and females (Figure 13.5), although the rates for females are consistently lower than those for males.

The higher labour force participation amongst FET qualification holders at level 6 compared to those with higher education qualifications at level 6/7 is partly due to the strong labour market orientation of FET level 6 programmes, which include craft apprenticeship, health care assistants, special needs assistants; for many of these occupations a specific FET qualification at level 6 is a pre-requisite to employment.



Figure 13.5 Labour force participation rates of 20-74-year olds by NFQ level, Q2 2021

Source: SLMRU analysis of CSO (LFS) data

Excludes observations where NFQ level is not stated

How does the occupation profile of qualification holders vary by level?

The occupations of employed qualification holders vary, depending on the highest level of educational attainment (Figure 13.6). In general, those with qualifications at the lower levels of the National Framework of Qualifications had larger shares engaged in lower skilled occupations: almost two fifths (38%) of those with NFQ 1-3 qualifications and 30% of those with level 4/5 qualifications (e.g. Leaving Cert) were working in operative or elementary occupations, compared to nearly 16% and 4% for those with FET or NFQ 8-10 qualifications respectively.

In contrast, those holding higher education qualifications had much larger shares working in professional and associate professional occupations compared to those with at most second level qualifications: nearly two thirds of NFQ 8-10 qualification holders were working in professional or associate professional occupations in quarter 2 2021; this compares to just 3% and 13% for those with at most a Junior Cert or a Leaving Cert respectively. This difference reflects the fact that entry to many professional occupations (nurses, teachers) requires a third level qualification.



Figure 13.6 Share of employment by occupation and NFQ level, Q2 2021

Source: SLMRU analysis of CSO (LFS) data

*Excludes observations where NFQ level is not stated

Employment rate by education level: EU Comparison

Eurostat (the EU's statistical agency) provides statistics on the employment status of adults by ISCED level of education. Figures 13.7 – 13.9 show how the employment rate in 2020 varied by ISCED education level across the EU; the data refers to 20-64 year olds with one of three broad education attainment levels: those with at most lower secondary educational attainment, those with upper secondary or post-secondary, non-tertiary education attainment, and those with tertiary education attainment. The NFQ levels typically associated with these ISCED education levels are detailed in Appendix A.

Across the EU, the higher the level of educational attainment, the higher the employment rate. On average, 55% of 20-64-year-olds in the EU with at, most, **lower secondary educational attainment** were in employment. Ireland's share was slightly lower, at 51%, and well behind countries such as Portugal, the Netherlands and Germany, among others, where the employment rates for persons with this educational attainment were 69%, 63% and 62% respectively.

It is worth noting, however, Ireland's share of the 20-64-year-old population at this education level was considerably lower than the EU 27 average (20%), at just 13% in 2020 (representing 386,00 people¹⁵). Therefore, while the employment rate is comparatively low for those with, at most, lower secondary education, the number impacted in Ireland is also comparatively low.



Figure 13.7 Employment rate in EU 27 countries (20-64 yrs) with lower secondary or less*. 2020

¹⁵ Refers to 2020 annual average (source: Eurostat)

On average, 72% of 20-64-year-olds in the EU with at upper secondary/post-secondary, non-tertiary education (corresponding, for example, to Leaving Cert or FET in Ireland) were in employment. Ireland's share was slightly lower, at 69%. The largest employment rate was observed for Sweden and Malta at 82% each. The share of persons in Ireland holding qualifications at this level is below the EU 27 average of 48%, at 38% (refers to 2020 annual average).

Figure 13.8 Employment rate in EU 27 countries for 20-64-year-olds with upper secondary or post-secondary^{*}, non-tertiary education 2020



On average, 84% of 20-64-year-olds in the EU with tertiary education were in employment. At 84%, Ireland's share was at the EU average. Ten countries had employment rates of 87% or more. However, Ireland also has the highest share of its population in this cohort who held third level qualifications in 2020, at 46%, well above the EU 27 average of 31%.





* Corresponds to qualifications at NFQ levels 6-10 in higher education (see Appendix A) Source: Eurostat Gartography: Eurostat – IMAGE, 11/2021

14. Recent Graduates

Internationally, organisations such as the OECD, Eurostat and others define recent graduates as persons aged 20-34 years who obtained a qualification in the preceding three years. However, as the number of observations in the data for this cohort in Ireland was relatively small and in order to facilitate an analysis by level and field, in this report, recent graduates are defined as persons aged 20-34 years who obtained a qualification between 2017 and the first half of 2021.

At what level have recent graduates obtained qualifications?

In quarter 2 2021, there were 403,800 recent graduates. Of these,

- 37% had obtained a Leaving Cert (or equivalent) qualification, corresponding to levels 4-5, on the NFQ
- more than one half (53%) had attained a higher education qualification, mostly at level 8 or above.

The numbers who obtained a qualification at level 1-3 in this age cohort were too small to report. This is mostly because the majority of persons aged 20-34 are likely to have already attained qualifications at this level prior to 2016, when they were aged 15 or 16 ears: almost all pupils who enrol in first year of secondary school go on to sit the Junior Certificate three years later (e.g. of the almost 60,800 pupils who enrolled in the first year of the Junior Cycle programme in 2013, almost 98% completed the Junior Certificate¹⁶.

NFQ Level	Recent graduates	Recent graduates %
Level 1-3	***	
Level 4-5 (second level)	147 <u>.</u> 800	37%
Level 4-5 (FET)	2 <u>3,</u> 000	6%
Level 6 (FET)	17 <u>.</u> 100	4%
Level 6-7 (HE)	31 <u>.</u> 300	8%
Level 8-10	181 <u>.</u> 400	45%
All levels	403,800	100%

Table 14.1 Recent graduates by level of qualification obtained, quarter 2 2021

Source: SLMRU analysis of CSO (LFS) data

Excludes observations where NFQ level is not stated

¹⁶ Department of Education and Skills series of reports on retention rates of pupils in second-level schools.

Labour force status of recent graduates

In quarter 2, 2021, 79% of the 403,800 recent graduates were in the labour force, representing 320,100 persons. This contrasts with quarter 2 2020, when just 67% of recent graduates were labour force participants. With the exception of FET graduates at level 6, the higher the NFQ level, the higher the share in employment: recent level 4-5 graduates from the second level system (e.g. Leaving Cert) had the lowest share at 65%, while the highest shares were observed for those with level 8-10 qualifications (90%) (Figure 14.1).

The particularly large gap in the share in employment for persons with level 4-5 upper secondary qualifications compared to those with FET level 4-6 qualifications is partly due to the fact that some people in this cohort may have yet to complete their education, with many opting to pursue further studies in the FET or higher education sectors rather than entering the labour force. Data from the CSO shows that at least one quarter of FET graduates¹⁷ progressed to higher education in the year directly following FET programme completion.



Figure 14.1 Number and share of recent graduates in employment by NFQ level, Q2, 2021

Source: SLMRU analysis of CSO (LFS) data

Excludes observations where NFQ level is not stated

¹⁷ Refers to those who obtained QQI major awards only and is therefore a subset of total FET graduate numbers. <u>https://www.cso.ie/en/releasesandpublications/ep/p-feo/furthereducationoutcomes-graduationyears2010-</u> <u>2016/outcomeseducation/</u>

Appendix

ISCED levels of education and associated NFQ award levels

Table A1 shows the formal ISCED levels, the typical programmes in Ireland that correspond to these levels, the name of the award typically (but not exclusively) associated with completion of a programme, as well as the award's NFQ level. As can be seen, some award levels span more than one sector (e.g. awards at level 4 and 5 are available in both the secondary school system and the further education and training (FET) system). Similarly, awards at level 6 span the FET and higher education system. Where relevant, and where the data allows, in addition to presenting awards by NFQ level, we also provide an indication of the sector (e.g. level 6 (FET) or level 6 (higher education) qualifications).

ISCED 2011 Level	Corresponds to:	Typical award	Award NFQ Level	
0 Pre-primary education	Early Start and other pre-primary	001 Cortificato	Level 1/2	
1 Primary education	Primary education	Gorcerificate		
2 Lower secondary	2nd level education –Junior Cycle	Junior Certificate	Level 3	
			Level 4	
3 Upper secondary	2nd level education – Senior Cycle	Leaving Certificate	Level 5	
	Craft apprenticeship, PLC courses, other	QQI Level 5 Cert		
tertiary	FET ¹⁸	QQI Advanced Certificate		
5 Short-cycle tertiary education	Third level – higher cert./university diploma /new post 2016 apprenticeship	Higher Certificate	Level 6	
6 Bachelor's degree or equivalent	Third level – ordinary & honours bachelor	Ordinary Degree	Level 7	
	degree Higher diploma	Honours Degree	Level 8	
	New post-2016 apprenticeship	Higher Diploma	Level 8	
7 Master's degree or equivalent	Third level – master's degree, postgrad. certs/diplomas new post -2016 apprenticeship	Postgraduate Diploma Master's degree	Level 9	
8 Doctor or equivalent	PhD	PhD	Level 10	

Table A1 ISCED levels of education and associated awards and award levels

¹⁸ Some FET programmes (e.g. some specific skills training) also lead to awards at level 3 or 4 on the NFQ.

Private independent colleges whose learners received QQI – HE awards in 2020

Carlow College National College of Ireland The Open Training College CCT College Dublin Children's Therapy Centre Clanwilliam Institute College of Computing Technology Dorset College Dublin Business School Dublin Institute of Design Gaelchultúr Galway Business School Griffith College Hibernia College Ibat College Dublin **ICD Business School IICP Education and Training Limited** Independent Colleges Institute of Physical Therapy and Applied Science International College for Personal and Professional Development Irish College of Humanities and Applied Sciences Limited Irish Institute of Purchasing and Materials Management Kimmage Development Studies Centre Newpark Music Centre Saint Nicholas Montessori College Ireland Setanta College The American College, Dublin

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