FET Learner Outcomes

Healthcare Learners

Further Education & Training
SOLAS learning works
Rialtas na hÉireann
Government of Ireland

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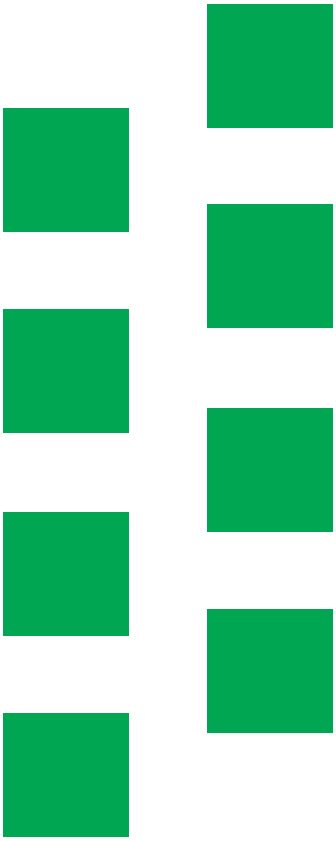


Executive Summary

This report provides data-driven evidence that illustrates the value of Further Education and Training to the learners to upskill or reskill in order to work in the healthcare sector. Our study is focused on those learners who qualify to become frontline healthcare workers.

Frontline healthcare workers are defined as healthcare workers who work in a healthcare or social care setting in direct contact with the patient or the client, including other staff in non-clinical contact with patients and laboratory or pathology staff. The Further Education and Training sector has been training learners and supporting the healthcare sector by providing courses at levels 5 and 6, allowing learners to work in health and social care settings as nursing auxiliaries and assistants, care workers and home carers, laboratory technicians, healthcare practice managers and pharmacy assistants.

This research has several interesting and valuable findings. Firstly, it is apparent that learners who engaged in health-related FET courses have improved employment and progression prospects following FET completion. Secondly, there is a significant decrease in the reliance on welfare support among this cohort after graduation when compared to pre-enrolment economic status.

The total share of the healthcare learners in substantial employment in 2018 following course completion was 60%, increasing to 69% in 2019 and stayed at 67% in 2020. The slight decrease in 2020 may be the impact of the pandemic on education: as both the share of learners in *'employment and education'* and *'education only'* fell in 2020.

The employment outcomes of our cohort have improved significantly after course completion when compared to their labour market status prior to enrolment. The share of the healthcare learners in *'substantial employment only'* increased by 36 percentage points from 23% in 2016 to 59% in 2020.

The share of healthcare learners in *'substantial employment and education'* increased significantly in 2019 to 32%, indicating that some learners continued their education for a second year while still in substantial employment. Another 15% were in *'education only'* in 2019, bringing the total share of learners in education to 47%.

As learners acquire the skills necessary to secure employment, the number and the share of learners in *'education only'* decrease substantially. There was a decrease of 47 percentage point from 52% in 2016 to 5% in 2020 among our cohort in 'education only'.

The share of learners on welfare also decreased significantly post-course completion compared to rates during course enrolment: the share of learners *'not in employment or education'* but who were on Department of Social Protection (DSP) payments was 38% in 2017 dropping sharply to 5% in 2019.[1]

1 The share of learners not in employment or education increased during 2020 due to the COVID19 pandemic.

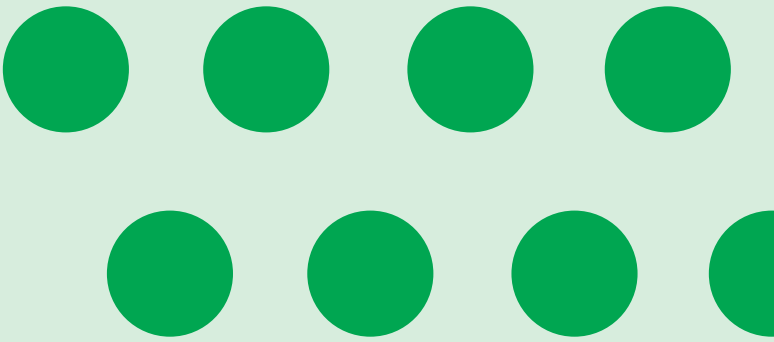
Our results suggest that the numbers emigrating after their course completion increase over the years. The Educational Longitudinal Database (ELD) outcome category 'not captured' indicates the share of learners who could not be found in any of the administrative datasets that are used to construct ELD. The share of the 'not captured' learners increased gradually over time, rising from 0% to 11% between 2018 and 2019 and increasing to 17% in 2020.

In the years following course completion, the healthcare learner cohort was mainly employed in the *Human Health and Social Work Activities* sector, earning a weekly median salary of €427 in 2020. Following course completion, the employment level of this cohort in the Health sector increased by 158% from their level prior to enrolment. In the 3 years from 2018 to 2020, employment in the *Health* sector accounted for between 46% and 51% of those in employment. Significantly, there was no decline in Health sector employment among the cohort in relation to Covid-19 disruptions to the economy in 2020. The median weekly salary for the year of completion (2018) was a modest increase of 13% on 2017 weekly pay. In contrast, two years following completion, the median weekly salary is increased by 67% to €427 of the median weekly salary in 2017 (€256).

The total number of healthcare learners who progressed to higher education in 2018/2019 was 1,015, representing an initial progression rate of 10%. The data shows that the majority of the FET health cohort that progressed to HE, progressed to courses in the *Health and Welfare* broad ISCED category. This cohort had a retention rate of 89% in their higher education course at NFQ level 8.

A further analysis of learners who completed Pre-Nursing PLC courses revealed strong pathways into employment. The total employment rate for this cohort was 65% in 2018 increasing to 70% in 2019. There was a slight decrease in the employment rate in 2020, down to 68%. However, it is also notable that there was a surge in those who were 'not captured' in 2020, of 17%.

The progression rate of this cohort to higher education was significantly higher than the overall cohort: 26% progressed to higher education in 2018, increasing to 31% in 2019. In the 2018/2019 academic year, the majority (79%) of the HE progressors enrolled in HE courses listed under the Health and Welfare ISCED category.



Legal Framework underpinning research

The CSO provides researchers with access to relevant data holdings, subject to stringent confidentiality criteria, within the framework of the Statistics Act, 1993.

The examination of learners outcomes provided in this report was produced by SOLAS under Section 11 of the Statistics Act 1993 using the Educational Longitudinal Database (ELD) data source which was created in compliance with all relevant data protection legislation.

The ELD data source brings together data from the Department of Education and a number of state agencies, including the Higher Education Authority (HEA), Quality and Qualifications Ireland (QQI) and SOLAS, with employment, benefits and earnings data from the Revenue Commissioners and the Department of Social Protection. Access to this data source is strictly limited to Officers of Statistics.

The ELD provides the basis for a series of projects that the CSO facilitates in strict compliance with the Statistics Act, which allows researchers to further analyse and examine learner outcomes.

The CSO's role is limited to the development of the ELD data source and it is important to note that any analysis, conclusions or recommendations made in this report are SOLAS's alone.

Full details relating to the framework for this research work can be accessed through the following links:

https://www.cso.ie/en/aboutus/lgdp/legislation/memorandumsofunderstanding/statisticalagreementbetweencsoandsolas/

http://www.irishstatutebook.ie/eli/1993/act/21/enacted/en/

html https://www.cso.ie/en/methods/education/educationallongitudinaldatabase/

Section 1

Introduction

1 Introduction

The past two years of living with the Covid-19 pandemic has transformed our lives in ways that previously would have been unimaginable and has had a significant impact on healthcare professionals across Ireland. The 'frontline healthcare workers' faced many challenging situations across every aspect of their work, from working in direct contact with patients to mental health issues. This has brought new added pressures to the changing roles of healthcare workers in Ireland.

The aim of this report is to highlight the contribution that the Further Education and Training sector has made in training the workforce to meet the skills required by the Irish healthcare sector in the last few years. The 16 Education and Training Boards have been providing courses in the Health and Welfare field of learning that accounted for 10% of FET learner enrolments in 2018 increasing to 13% in 2020.[2] This report examines the outcomes of learners who were enrolled in a relevant Health and Welfare course in an ETB to potentially become a 'frontline healthcare worker' upon successful completion of their course.

To examine the outcomes of these learners, we use the Educational Longitudinal Database (ELD) developed by the CSO. This framework is produced by linking datasets from the education sector, including PLSS, to other public sector datasets (e.g. Revenue, DSP, QQI and HEA) which describe learner outcomes over a range of years. All linkage is carried out by using a Protected Identifier Key (PIK) assigned on each contributing data source. The PIK is then used to link the pseudonymised data sources together to create the ELD. The PIK protects a person's identity but also enables linking across data sources and over time. The PIK enables high quality deterministic matching thus significantly reducing/eliminating linkage error.

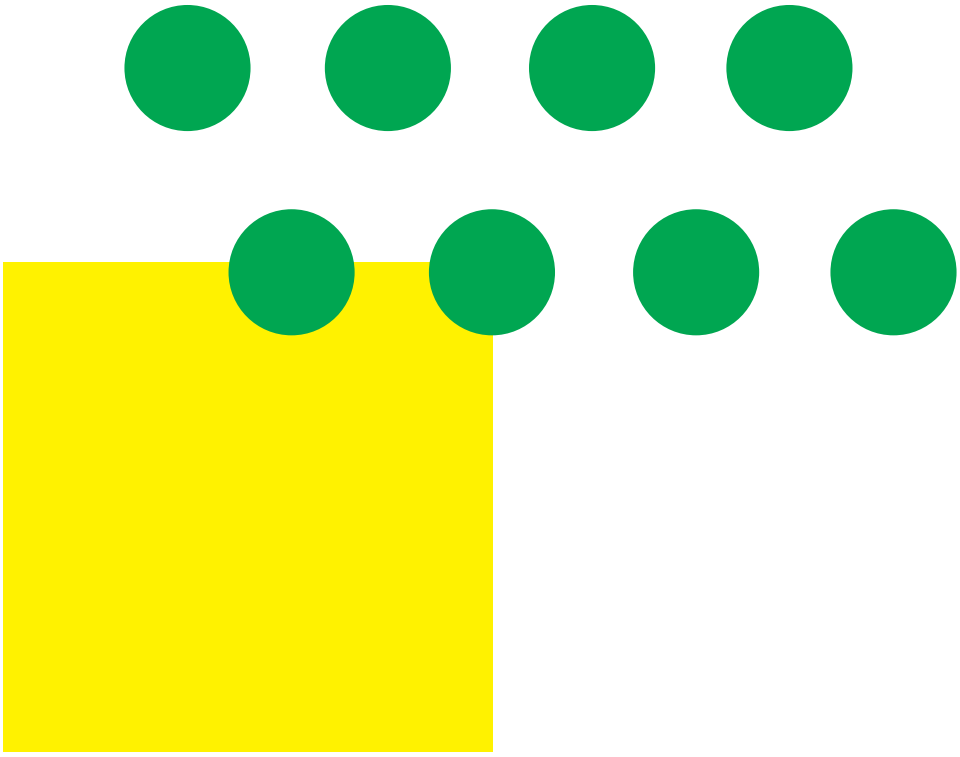
The outcomes analysis and the results of this report will add significantly to the debate around the changing role of the healthcare workers in Ireland and acknowledge the significant contributions made by the ETBs.[3] Even though the high pressure and demands on the healthcare professionals were evident, the Covid-19 pandemic has brought it to the forefront. Despite significant service demands, employment growth for healthcare occupations in Ireland was below the national average during the period 2014-2019. Demand for workers in the healthcare sector is expected to rise in line with increasing service demands as a result of an ageing population and due to the Covid-19 pandemic (McNaboe et al., 2020). This analysis provides new evidence into the progression pathways of the FET learners into employment and further and higher education.

2 See this-is-fet-facts-and-figures-2018.pdf (solas.ie) and 15665-fet_facts_report_2020.pdf (solas.ie).

3 See Waldie (2010) and Jansen et al (2017) for the evolving role of the healthcare assistants.

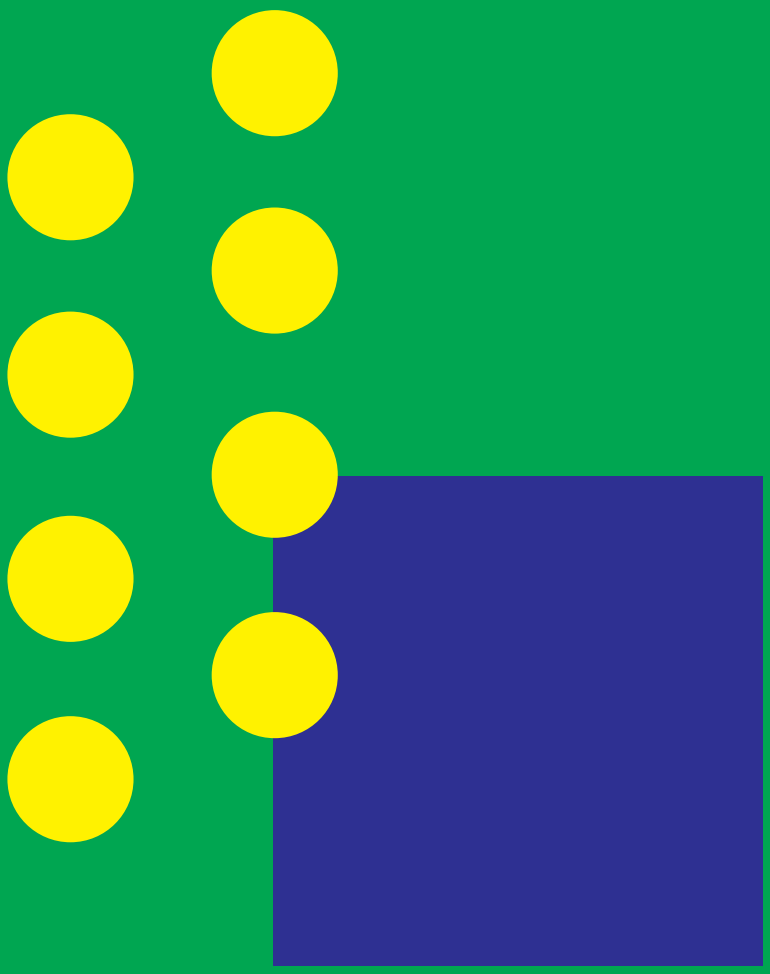
Investment in the education of these healthcare workers is likely to lead to better standards of care for those dependent on their skills (Shannon and McKenzie-Green, 2016). Furthermore, formalisation of training can ensure the competence of those employed while establishing acknowledgement of role limitations and professional integrity (Waldie, 2010; Shannon and McKenzie-Green, 2016). In Ireland, it is a Health Service Executive (HSE) requirement that all healthcare workers have at least a level 5 certificate in a relevant discipline to work.

It is important that SOLAS and the ETBs have an insight into the number of learners enrolling in healthcare related FET courses and the value of these courses to learners in terms of their employment, salary and education progression outcomes. In addition, the results of this study can provide valuable information for the strategic workforce planning by the HSE.



Section 2

Learners in the Healthcare Cohort



2 Learners in the Healthcare Cohort

2.1 Frontline Healthcare Cohort Definition

For the purpose of this report, frontline healthcare workers are defined as healthcare workers who work in a healthcare or social care setting in direct contact with the patient or the client, including other staff in non-clinical contact with patients and laboratory or pathology staff. The list of frontline public sector healthcare workers, in relation to the Covid-19 recognition payment, includes medical doctors, nurses, healthcare assistants who work in clinical settings and healthcare support assistants, i.e. Home Carers / Home Help. The measure also encompasses those eligible working on site in long term residential care facilities for people with disabilities and those healthcare workers in private nursing homes and hospices.[4]

The Further Education and Training sector has been training learners and supporting the healthcare sector by providing courses at levels 5 and 6, allowing learners to work in health and social care settings as nursing auxiliaries and assistants, care workers and home carers, laboratory technicians, healthcare practice managers and pharmacy assistants. In this report, the health cohort is defined as above and includes learners who completed a course that led to the *Target Awards* listed below. Courses leading to awards specified in Table 1 below are hereafter considered *Health* courses and the learners on these constitute the cohort for learner outcome analysis.[5] The target awards included, largely encompass learners not only working towards roles as healthcare assistants but also those working towards progression to higher education. The majority of learners (8,770) in the cohort (9,993) have an enrolment date in the 2017 calendar year (87.8% of the cohort) and have completed their courses in 2018.

Target Award Description	Target Certificate
Healthcare Support	Level 5 Certificate
Nursing Studies	Level 5 Certificate
Health Service Skills	Level 5 Certificate
Community Health Services	Level 5 Certificate
Laboratory Techniques	Level 5 Certificate
Health Services Supervisory Management Skills	Advanced/Higher Certificate
HND in Health & Social Care	Advanced/Higher Certificate
Intellectual Disability Practice	Level 5 Certificate
NVQ Diploma in Pharmacy Service Skills L3	Level 5 Certificate

Table 1 Target Awards-Health courses

4 https://www.oireachtas.ie/en/debates/question/2022-03-31/402/speech/874

5 Please note that there are other Further Education and Training provision in the Health and Welfare field of learning. For the purposes of this report the healthcare cohort will include only those learners in the select list of courses as discussed.

2.1.1 Target award of Learners in the Healthcare cohort

The majority of learners (41%) in the health cohort were enrolled in courses leading to a Target Award of *Healthcare Support*. This was followed by learners enrolled in courses leading to target awards in Nursing Studies (19%), Health Service Skills (18.5%) and Community Health Services (12%).

Target Award	Number of Learners	% of Learners
HealthCare Support	4,113	41.2%
Nursing Studies	1,927	19.3%
Health Service Skills	1,846	18.5%
Community Health Services	1,203	12.0%
Laboratory Techniques	522	5.2%
Health Services Supervisory Management Skills	151	1.5%
HND in Health & Social Care	136	1.4%
Intellectual Disability Practice	77	0.8%
NVQ Diploma in Pharmacy Service Skills	18	0.2%
Total	**9,993**	

Table 2 Distribution of learners by the Target Award of the course on which they are enrolled

2.1.2 Programme Category

Over 80% of learners in the Health Cohort were enrolled in programmes categorised as being either Post Leaving Certificate courses (PLCs) or a part of the Back to Education Initiative (BTEI).

Programme Category	Number of Learners	% of Learners
PLC	4,774	47.8%
BTEI Groups	3,428	34.3%
Evening Training	464	4.64%
Traineeship Training	392	3.92%
VTOS Core	375	3.75%
Other Funding	319	3.2%
Specific Skills Training	115	1.2%
Local Training Initiatives	94	0.9%
Traineeship Employed	29	0.3%
Total	**9,993**	

Table 3 Healthcare cohort learner enrolments by programme category

2.1.3 Delivery Type

Over 57% of the learners in the healthcare cohort were enrolled in full-time study while 42% were enrolled in part-time courses.

Course Delivery Type	Number of Learners	% of Learners
Full-time	5,748	57.5%
Part-time	4,245	42.5%
Total	**9,993**	

Table 4 Course Delivery type relating to the learners in the Health Cohort

2.2 Health Cohort Learner Profiles

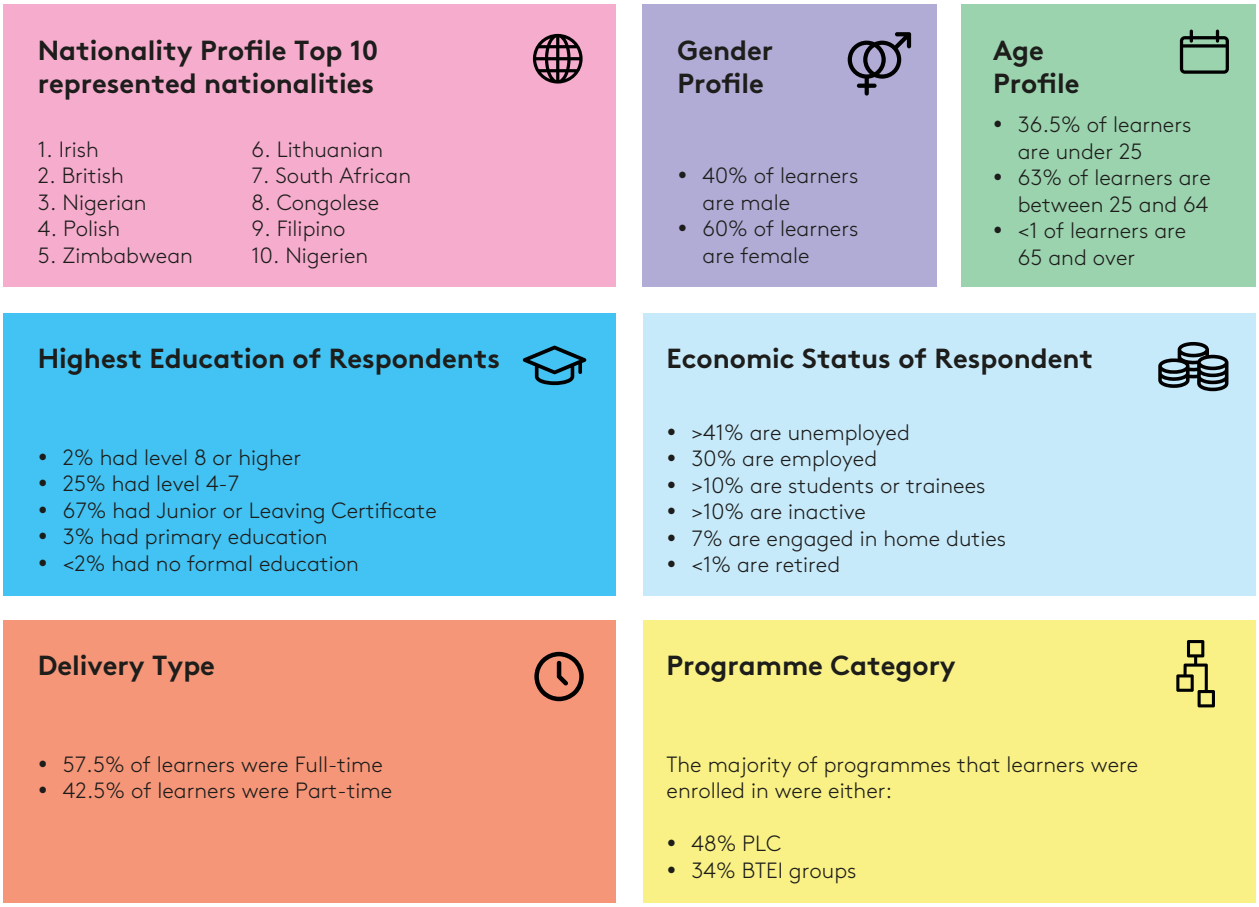


Figure 1 Infographic of learner profile for the 2018 Health cohort

There were 175,094 distinct learners enrolled in FET Courses in 2018, 60% of which were female and 40% of which were male. Of this number, **9,993** were enrolled in Health Courses (in the health cohort). The proportion of learners in health courses that were female was greater (77%) than in FET courses overall.

Learners enrolled in Health courses had a diverse background in terms of nationality. In all, 105 different nationalities were represented in the cohort. Of the 7,248 learners that responded to the nationality question (equating to 72.5%) the majority 82.1% were Irish. Learners from the UK had the next best representation (2.6%) followed by those of Nigerian, Polish and Zimbabwean background. Table 5 below shows the top 10 nationalities of learners enrolled in health courses in 2018.

Nationalities	Number of Learners	% of Learners
Irish	5,951	82.1%
Polish	156	2.2%
Nigerian	169	2.5%
British	183	2.6%
Zimbabwean	77	1.1%
Lithuanian	71	0.9%
South African	42	0.6%
Nigerien	39	0.6%
Congolese	31	0.4%
Filipino(a)	31	0.4%

Table 5 Top 10 nationalities of learners enrolled in health courses.

2.2.1 Age Profile

The majority of learners enrolled in health courses in 2018 were between the ages of 25 and 64 (63%), with 36.5% under the age of 25. A fraction (0.5%) of learners were over 65.

Age Profile of Learners	Number of Learners	% of Learners
Under 25	3,648	36.5%
Between 25 and 64	6,298	63%
65 and Over	47	0.5%
Total	**9,993**	

Table 6 Age profile distribution of learners in the Health Cohort

2.2.2 Education Profile

In terms of their highest level of education, 67% of the health cohort learners reported they had a lower and upper secondary level prior to the start of their course. An additional 28% of learners held a post-secondary non-tertiary, a short-cycle tertiary or a third level education.

Highest formal education level	Number of Learners	Percent share
Primary Education and below	304	5%
Lower Secondary	1,727	27%
Upper Secondary	2,487	40%
Post-secondary non-tertiary	1,335	21%
Short-cycle tertiary education	208	3%
Third Level	223	4%
	6,284	

Table 7 Highest formal education level achieved by learners prior to FET enrolment

2.2.3 Economic Status

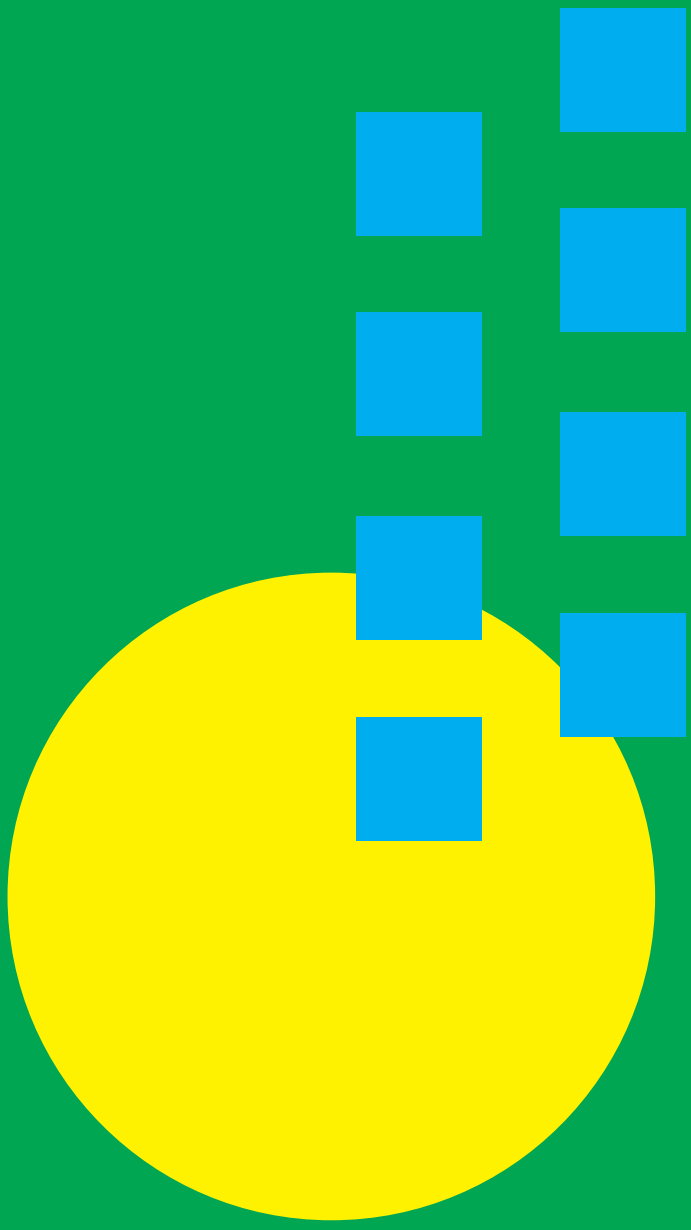
Approximately 46% of learners indicated their Principal Economic Status (PES). Of this 46%, most (41.3%) declared they were unemployed, with 30.5% and 10.6% stating they were employed or students/trainees respectively. Of the remainder, 6.9% were engaged in home duties, 0.4% were retired and 10.4% were inactive for other reasons.

Economic Status Description	Number of Learners	Percent share
Unemployed	1,898	41.3%
Employed	1,404	30.5%
Student/Trainee	485	10.6%
Inactive for other reasons	478	10.4%
Engaged in home duties	316	6.9%
Retired	18	0.4%

Table 8 The Principal Economic Status (PES) of Learners

Section 3

Methodology



3 Methodology

3.1 ELD

Outcomes analysis is performed within the CSO environment, utilising the Educational Longitudinal Database (ELD) and SAS Enterprise Guide Version 7.15 HF8. The ELD is a statistical framework for the compilation and analysis of learner outcomes over several years. The CSO in collaboration with various Irish public sector bodies and governmental departments collects and collates data relating to various educational and occupational activities which characterise a learner's outcomes. Some of the relevant datasets collected include the PAYE Modernisation (PMOD) dataset, provided by the Revenue; the Higher Education (HE) enrolment dataset provided by the Higher Education Authority (HEA) and benefits data held in the Business Object Model implementation (BOMi) and supplied by the Department of Social Protection (DSP).

All linkage is carried out by using a Protected Identifier Key (PIK) assigned on each contributing data source. The PIK is then used to link the pseudonymised data sources together to create the ELD. The PIK protects a person's identity but also enables linking across data sources and over time. The PIK enables high quality deterministic matching thus significantly reducing/eliminating linkage error.

Section 4

Results

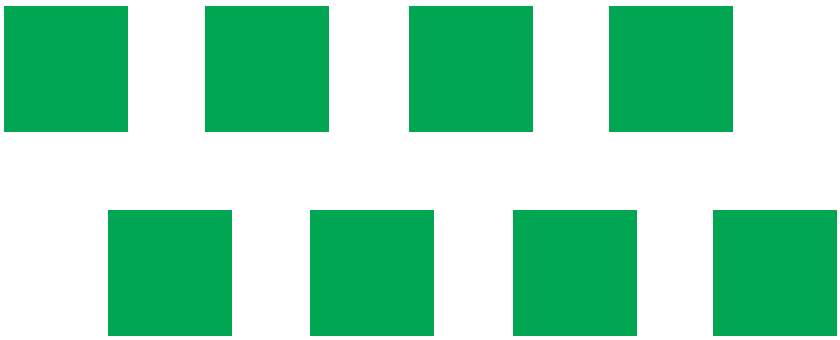
4 Results

4.1 Mutually Exclusive Employment and Education Outcomes

The linking of the PLSS data with the ELD allows us look at 5 mutually exclusive outcomes (see Table 9):

Outcome number	Outcome	Definition
1	Employment only	Worked at least 12 weeks in the year (P35 employment) earning at least €100 a week on average from their main employer. Must have no record of enrolment in any educational databases in the year in question.
2	Employment and Education[6]	Must meet the above conditions of employment but also have a record of enrolment in any education database.
3	Education only	Must have a record of enrolment in any education database in the year in question, but not meet the definition of employment.
4	Neither employment nor education	Does not meet the definition of employment nor do they have an enrolment record in any educational database, but they do have some record of employment or benefits in the ELD for the year in question.
5	Not captured	No record of either employment, benefits or educational enrolment in the ELD for the year in question.

Table 9 Mutually Exclusive outcomes linked to the Health Cohort



6 Education here does not include the health related course on which their inclusion in this study is based. This is true of the other 4 mutually exclusive outcomes.

Here we look at the mutually exclusive outcomes described in Table 9 above. The analysis in Table 10 shows the status of our healthcare cohort over a period including the year before enrolment (2016), the year of enrolment (2017), the year of course completion (2018) and one year (2019) and two years (2020) after completion. While the year of course completion and years after course completion (i.e. 2019 and 2020) are indicators of the cohorts' outcomes, before enrolment (2016) and the year of enrolment (2017) give us information on the status of the learner prior to the course completion.[7] The post-graduation outcomes give us a clear picture of the numbers employed and of those who progressed onto Higher Education, thus informing the education sector of the rate of employment and progression of this cohort. We take our analysis one step further and we introduce the status (i.e. not the outcome) of the learners before and during course enrolment to allow us to make a before-and-after comparison. This comparison enables us to make strong and evidence-based conclusions on not only the 'outcomes' but also the 'improvements' made in the status of our learners.

		Year before enrolment	Year of enrolment	Year of course completion	Year 1 after completion	Year 2 after completion
Outcome	**Outcome Description**	**2016**	**2017**	**2018**	**2019**	**2020**
1	Number of learners in substantial employment only (i.e. not in education)	1,461	3,028	4,701	3,682	5,860
2	Number of learners in employment and education	1,942	1,026	1,320	3,188	863
3	In education only	4,399	2,021	1,111	1,497	471
4	Learners not in education or employment	335	3,804	2,830	484	1,145
5	Not Captured	399	114	31[8]	1,142	1,654

Table 10 Number of learners qualifying under the 5 mutually exclusive outcomes from 2016 to 2020

7 It is important to note that the health courses' duration and course finish dates depend on the programme category. While PLC health courses run from September to May following an academic year, the BTEI courses can start and finish anytime during the calendar year. Also, in terms of duration 70% of BTEI courses are shorter than six months.

8 When determining the status or outcome of the learners in the healthcare cohort their enrolment or course completion in 2017 and 2018 is excluded. Additional technical information on data preparation and data linking is available upon request.

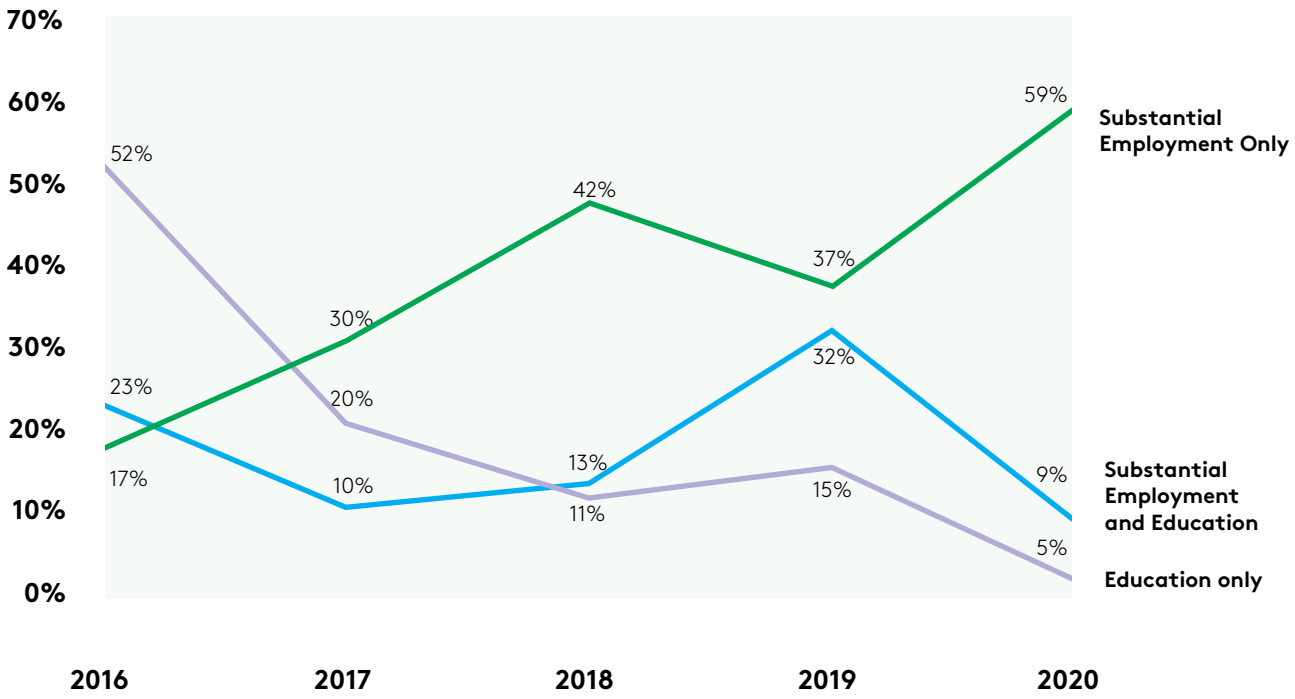


Figure 3 The share of learners of the Health Cohort in Substantial Employment and Education

- **The total share of the healthcare learners in substantial employment in 2018 following course completion was 60%, increasing to 69% in 2019 and stayed at 67% in 2020.** The slight decrease in 2020 may be the impact of the pandemic on education: as both the share of learners in *'employment and education'* and *'education only'* dipped in 2020. However, the share of the healthcare learners in *'substantial employment only'* increased by 36 percentage points from 23% in 2016 to 59% in 2020.
- The share of healthcare learners in *'substantial employment and education'* increased significantly in 2019 to 32%, indicating that some learners continued their education for a second year while still in substantial employment. Another 15% were in *'education only'* in 2019, bringing the total share of learners in education in 2019 to 47%.
- As learners acquire the skills necessary to secure employment, the number and the share of learners in *'education only'* decrease substantially, i.e. a decrease of 47 percentage point from 52% in 2016 to 5% in 2020.

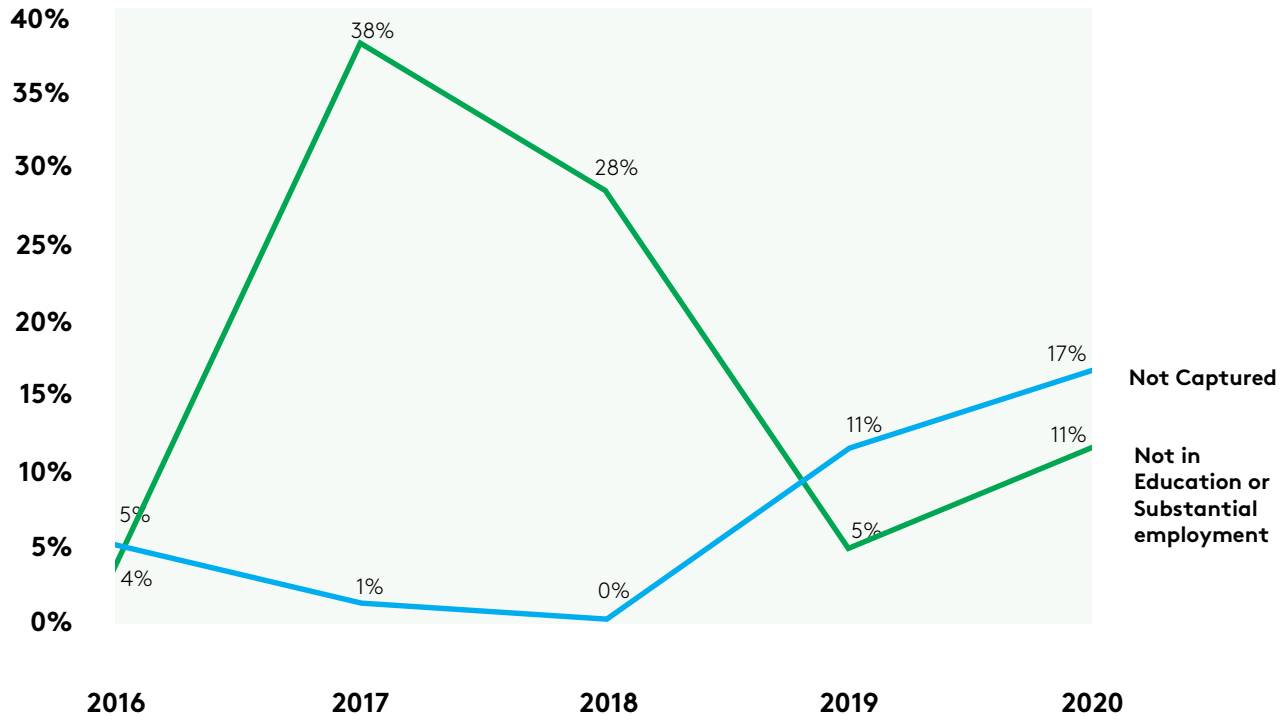


Figure 4 The share of Healthcare Learners who are not in education or employment or not captured

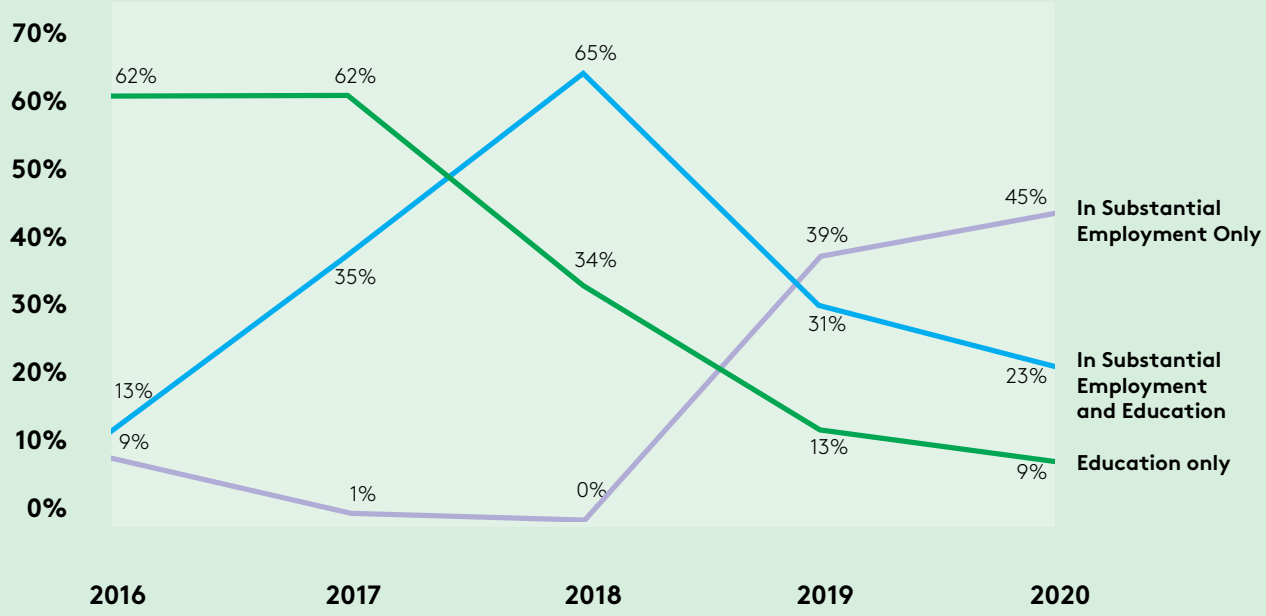
- The share of learners on welfare payments also decreased significantly post-course completion compared to rates during course enrolment: the share of learners *'not in employment or education'* but who were on DSP payments was 38% in 2017 dropping sharply to 5% in 2019.[9]
- The ELD outcome category 'not captured' indicates the share of learners who could not be found in any of the administrative datasets that are used to construct ELD. The share of the 'not captured' learners increased from 0% to 11% between 2018 and 2019 and climbed to 17% in 2020. This may suggest that the numbers emigrating after their course completion increase over the years.

9 The share of learners not in employment or education increased during 2020 due to the Covid-19 pandemic.

Outcomes of Learners on Pre-Nursing PLC courses

An analysis of a further subset of the dataset consisting of learners who completed pre-nursing courses was also carried out. There were 1,685 learners in *Pre-Nursing* cohort on 29 different courses nationally. Next, the *Pre-Nursing* cohort was linked to the ELD and separately to the HEA dataset to look specifically at progression outcomes in more detail.

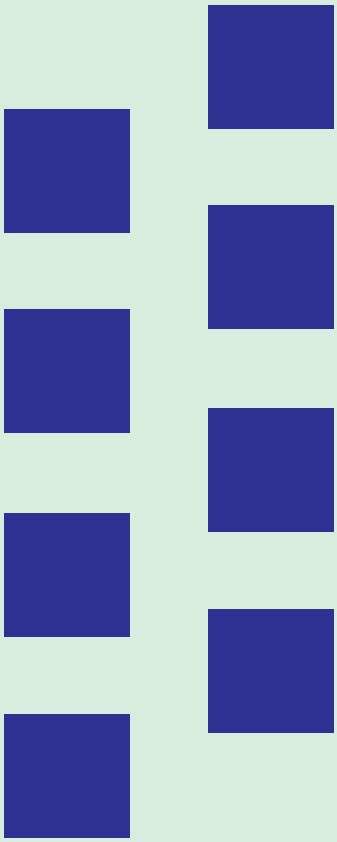
The total employment rate for this cohort was 65% in 2018 increasing to 70% in 2019.[10] There was a slight decrease in the employment rate in 2020, down to 68%. However, it is also notable that there was a surge in those who were 'not captured' in 2020, at the rate of 17%. Another significant outcome for this cohort is their reduced dependence on DSP payments: those on welfare accounted for 11% of this cohort before they were enrolled on their course, a rate that was reduced to 7% by 2020.



	2016	2017	2018	2019	2020
Not in education or employment	11%	2%	0%	8%	7%
Not Captured	5%	1%	0%	9%	17%

10 Pre-nursing PLC courses are 2-year courses. As course finish dates are recorded annually in PLSS, a learner on these courses may be finishing their 1st year of study or their 2nd year. In other words, the 1,685 learners include learners who finished their 1st and 2nd year study in 2018. In consequence, 2019 was the second year of study for some of our cohort.

The progression rate of this cohort to higher education was 26% in same year of PLC course completion increasing to 31% one year after.[11] From the 2018 *Pre-Nursing* cohort, 339 and 408 learners progressed to NFQ level 8 HE courses in the 2018/2019 and 2019/2020 academic years respectively. These figures represent 20% (2018/2019) and 24% (2019/2020) of the 1,685 learners in the *Pre-Nursing* cohort.[12] In the 2018/2019 academic year, the majority (79%) of the HE progressors enrolled in HE courses listed under the Health and Welfare ISCED category (see Appendix 1).

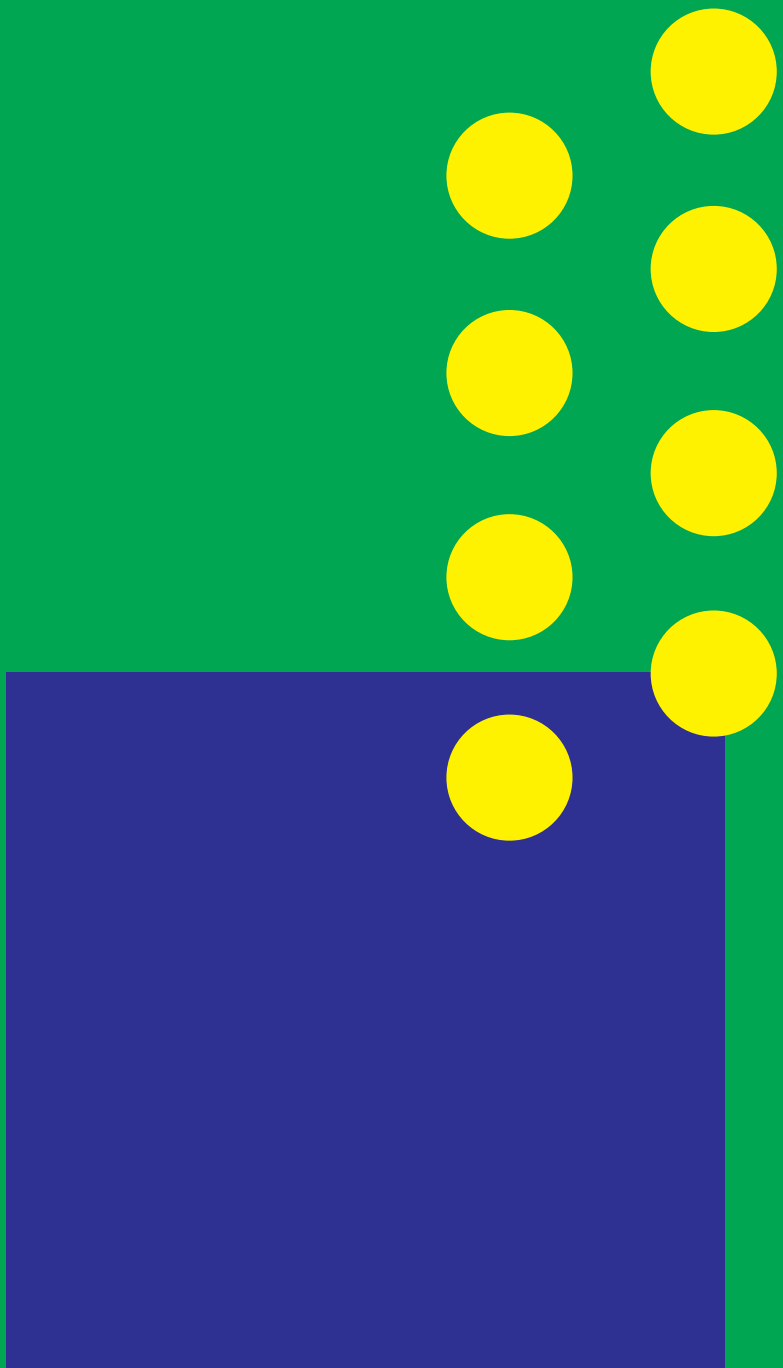


11 In total including progression to all HE NFQ levels, there were 441 and 526 FET to HE progressions in the 2018/2019 and 2019/2020 academic years.

12 It should be noted that the 2019/2020 figure of 408 includes learners who initially progressed in the 2018/2019 into course year 1 of HE and subsequently progressed to their second year of study.

Section 5

Further Investigation of Outcomes



5 Further Investigation of Outcomes

5.1 Employment

In this section we focus on the healthcare learners who are in substantial employment and their employment destination following course completion and their weekly earnings. The cohort presented in the following section represent those in substantial P35 employment inclusive of those in *'employment only'* and of those in *'employment and in education'*. In the year prior to FET enrolment (2016) the number of learners in employment was 3403. In the years of FET enrolment and completion (2017 and 2018), the number of learners in employment jumped to 4054 and 6021 respectively, equating to a cohort employment rate of 60%.

Year	Number of Learners in Substantial Employment
2016	3,403
2017	4,054
2018	6,021
2019	6,870
2020	6,723

Table 11 The number of learners of the Health Cohort in substantial P35 employment in the years from 2016-2020

5.1.1 NACE Sector Employment

In the years following FET completion, cohort employment is increasingly in the *Human Health and Social Work Activities* sector. In the 3 years from 2018 to 2020, employment in the *Human Health and Social Work Activities* sector accounts for between 46% and 51% of those in employment. This is in contrast to employment outcomes for the wider FET community where Wholesale and Retail Trade is the sector with most employment (McNaboe et al., 2018).

NACE Sector	2017		2018		2019		2020	
Human Health and Social Work Activities	2,440	40.52%	2,790	46.34%	3,294	48%	3,435	51.09%
Wholesale and Retail Trade	832	13.82%	903	15.00%	903	13%	841	12.51%
Accommodation and Food Service Activities	735	12.21%	803	13.34%	768	11%	527	8.23%
Administrative and Support Service Activities	411	6.83%	455	7.56%	574	8%	553	7.84%
Public Administration and Defence	119	1.98%	139	2.31%	178	3%	187	2.93%
Manufacturing	122	2.03%	133	2.19%	190	3%	197	2.78%

Table 12. Number of learners in substantial employment in the top 6 NACE sectors

Note: Percentages of learners employed per sector as a proportion of the total number of employed learners are also presented

The employment levels in the Health sector, a total of 2790, for the year of FET completion (2018) represents a substantial increase in employment in the sector from the years prior to FET enrolment (2012-2016). Figure 4 below shows increased *Health* sector employment of almost 158% from 2016 (1081 learners) to 2018 (2790 learners). This is an increase not seen in any of the other NACE sectors shown (the top 10 NACE sectors in terms of employment distribution of the cohort are included).

Significantly, there was no decline in Health sector employment among the cohort in relation to Covid-19 disruptions to the economy in 2020. This is in contrast to the other sectors represented in Figure 5 and in contrast to overall employment figures among the cohort (Table 11 above). Indeed, the proportion *Health* employment of the cohort in employment in 2020 rose by 3 percentage points from 48% in 2019 to 51.1% in 2020, reflecting possibly, the important role of the cohort within the Health sector.

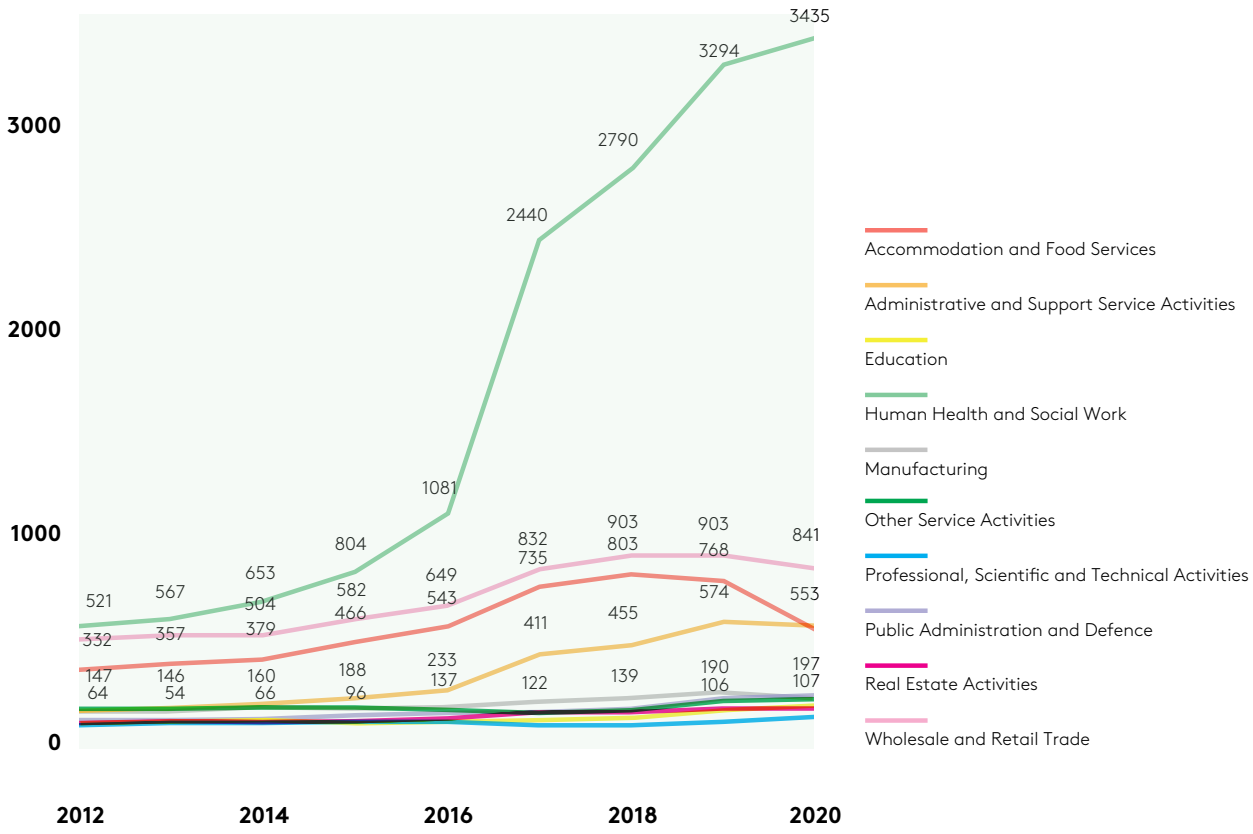


Figure 5 Distribution of employment by NACE Sector for learners in the Healthcare Cohort for years 2012 to 2020

Note: Only the top 10 NACE sector categories in terms employment distribution across all years are shown.

5.1.2 Salary

Here we look at the salary prospects for the healthcare cohort and compare weekly salaries for learners prior to and following FET completion. Table 13 below shows the median weekly salaries for the main employer among the cohort for the years 2017 to 2020 (inclusive of those in employment only and in employment and education). It is apparent that the median weekly salary for the year of completion (2018) is a modest increase of 13% on 2017 weekly pay. In contrast, two years following completion, learners' median weekly salary increased significantly (67%), from €256 to €427.

Calendar Year	Median weekly Pay for Main Employer
2017	€256
2018	€288
2019	€312
2020	€427

Table 13 The median weekly pay relating to the main employer for those of the Health Cohort who are in substantial P35 employment for the years 2017-2020

One might argue that the salaries of those in *'employment and education'* may be lower than those in *'substantial employment only'* and this might bring down the average weekly pay. Restricting this analysis to those in *'substantial employment only'* and looking at the median weekly salary with the main employer for that subset of the cohort, we find a similar pattern. In figure 6 below, we can see that the learners in this specific cohort are slightly better paid: the added 'bump' in salary can be seen immediately across the years. However, the increase in weekly pay (from 2017 baseline to the pay received in 2020) among the overall cohort is 67% vs 64% for those in employment only.

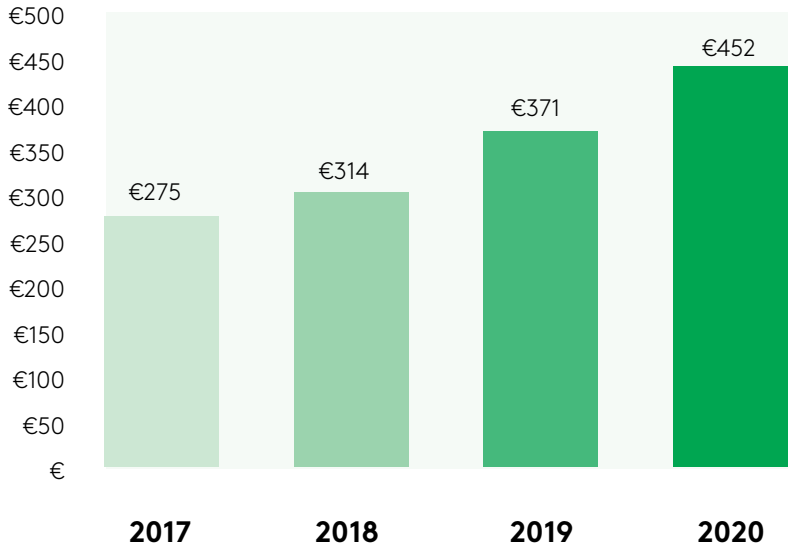


Figure 6. *Median weekly salary for the main P35 employer of the learner for the subset of the cohort who are in employment only*

It is common for workers in health care settings to hold more than one job at a time (Van Houtven et al., 2020). This is particularly true of health care assistants where low pay can require supplemental income (Jan et al., 2005). The increase in median weekly salary following completion of the Health course may be due to greater consistency of employment with the main employer and less dependence on supplementary income.

5.2 Progression

5.2.1 FET to HE Transition in 2018/2019 Academic Year

To examine the progression of FET learners to Higher Education (HE) in the year of FET completion and the following year, the PLSS data was linked to the HEA dataset within the CSO Administrative Data Centre. Linking the PLSS data to the HEA dataset in this manner provides richer data and greater resolution of the outcomes of learners specifically relating to HE progression. In linking the PLSS data to the HEA dataset, care was taken to exclude learners (275) who appeared to be already enrolled in HE upon commencement of their FET course.

The total number of healthcare learners who progressed to the HE in 2018/2019 was 1,015, representing a rate of progression of 10%. The data shows that the majority of FET finishers in the healthcare cohort that progress to HE, progress to courses in the *Health and Welfare* broad ISCED category; 482 learners out of 1,015 learners who progressed to HE from the 2018 cohort represents about 47% of HE progressions. After *Health and Welfare* the next highest number of progressions was to the *Natural Sciences, Mathematics and Statistics* ISCED category (26%), intuitive considering the biological aspects encompassed by natural sciences. Following this, the next highest category in terms of progression to HE from the cohort was to courses within the ISCED category comprising Social Sciences (6%). These three ISCED categories constitute almost 80% of the progressions from learners within the *Health* cohort demonstrating a natural pathway of progression from FET to HE, further demonstrating the value of FET both in terms of employment, but also progression. Furthermore, the relatively low progression to HE courses outside of these three ISCED categories shows FET health courses as legitimate options for learners with a commitment to health professions.

Broad ISCED Category	Number of Learners	Percent of Progression
Health and welfare	482	47%
Natural sciences, mathematics and statistics	263	26%
Social sciences, journalism and information	60	6%
Business, administration and law	51	5%
Arts and humanities	44	4%
Services	44	4%
Engineering, manufacturing and construction	21	2%
Generic programmes and qualifications	19	2%
Agriculture, forestry, fisheries and veterinary	11	1%
Education	10	1%
Information and Communication Technologies (ICTs)	10	1%

Table 14 Distribution of learners in the Health Cohort among Broad ISCED categories, for learners who progressed to HE during the 2018/2019 academic year

The HEA dataset shows that 69.5% of the progressions to HE (707 out of 1015) were to courses at Level 8 on the NFQ (National Framework of Qualifications).[13] A further 214 of the 1015 progressions (21%) were to courses at Level 7 (ordinary bachelor's degree or equivalent) with 90 to courses at Level 6 (8.8%). The data in Table 15 below reveals that the majority of progressions across all NFQ levels were to the first year of study in the relevant course.

Course Year	6	7	8
1	90	212	679
2	0	0	10
3	0	<10	18

Table 15 Distribution of learners from the Health Cohort who progressed to HE by the course year, and the NFQ level of the HE course they progressed on to for the academic year 2018/2019

Note: A number of learners also progressed onto the 4th and 5th year of the HE course. These are likely to be cases where learners have taken time out of HE, completed a FET course and subsequently decided to return to HE.

Broad ISCED Category	NFQ Level			
	6	7	8	9
Health and welfare	28	77	376	<10
Natural sciences, mathematics and statistics	23	74	166	0
Social sciences, journalism and information	<10	<10	50	0
Business, administration and law	<10	14	29	0
Arts and humanities	<10	4	36	0
Services	<10	18	21	0
Engineering, manufacturing and construction	<10	11	<10	0
Generic programmes and qualifications	16	<10	0	0
Agriculture, forestry, fisheries and veterinary	0	<10	9	0
Education	<10	0	8	<10
Information and Communication Technologies (ICTs)	0	<10	<10	<10
Total	**90**	**214**	**707**	**<10**

Table 16 Distribution of learners from the Health Cohort who progressed to HE by broad ISCED category, and the NFQ level of the HE course they progressed on to for the academic year 2018/2019

11 There were also learners who progressed onto HE courses at Master's level (level 9). However, the numbers cannot be disclosed due to confidentiality.

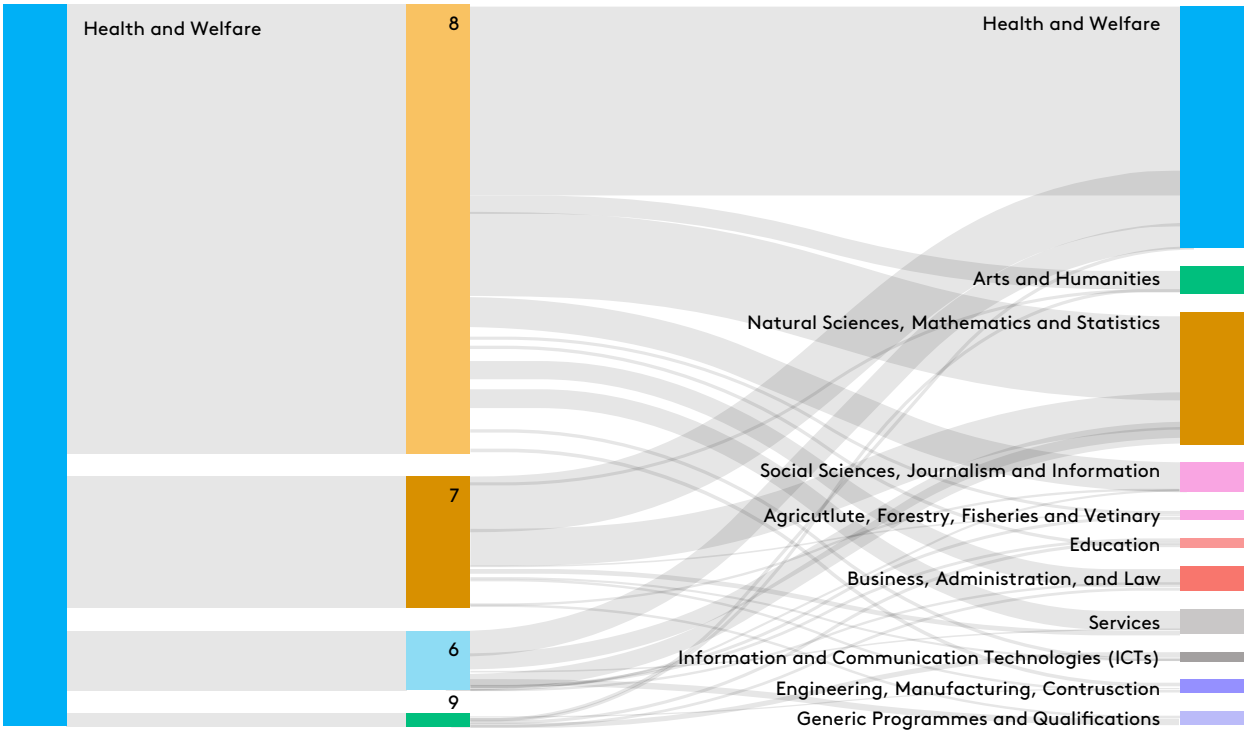


Figure 7 A Sankey diagram showing the flow of learners from the Health Cohort to HE education. The size of the grey bands/links represents the numbers of learners flowing to respective NFQ levels (6 to 9) and HE ISCED fields

5.2.2 FET to HE Transition in 2019/2020 Academic Year

There were 1,255 progressions from the 2018 Health cohort to HE in the 2019/2020 HE academic year. This figure includes learners who progressed from FET to HE in the 2018/2019 academic year or before and are now in their second or third years of HE.

There were 483 new progressions from the 2018 Health cohort into the first year of HE in the 2019/2020 academic year. The proportional breakdown of these in terms of the NFQ level are: 58% into NFQ Level 8 courses (higher bachelor's degree), 27.1% into NFQ Level 7 courses (ordinary level bachelor's degree or equivalent), 14.1% in to NFQ Level 6 courses and the remaining 0.9% into NFQ Level 9 (Master's) courses.

Of the 1,255 FET to HE progressions for the academic year 2019/2020, 483 were into the first year of the HE course (38.5%), 783 were into the second year (58.8%), and 35 learners (2.8%) went into third or higher years. The 783 learners who are seen in the second year of HE are predominantly made up of FET learners (714 learners) who enrolled in first year in the 2018/2019 academic year. This will be discussed further in the next section (5.2.3).

Of the 483 progressions to the HE first year, 179 learners enrolled in Health and Welfare programmes, representing 37% of the first-year population. Courses under the Natural Sciences, Mathematics and Statistics ISCED category represent a further 21% of the progressions to first year. The remaining nine ISCED categories presented in Table 17, together make up the remaining 42%.

Broad ISCED Category	1	2	3	4
Health and welfare	179	409	11	18
Natural sciences, mathematics and statistics	100	157	0	<10
Social sciences, journalism and information	39	46	0	<10
Business, administration and law	43	41	0	0
Services	22	32	0	0
Arts and humanities	31	20	0	0
Engineering, manufacturing and construction	14	15	0	0
Generic programmes and qualifications	22	0	0	0
Information and Communication Technologies (ICTs)	15	<10	0	0
Education	11	<10	0	0
Agriculture, forestry, fisheries and veterinary	<10	<10	0	0

Table 17 Distribution of learners from the Health Cohort who progressed to HE by broad ISCED category, and the course year of the HE course they progressed on to for the academic year 2019/2020

5.2.3 Retention of FET learners in HE

To measure retention of FET learners within the HE system, an inner join between a dataset of learners in 1st year of HE in the 2018/2019 academic year and learners in the 2nd year of HE in the 2019/2020 was carried out. This resultant dataset provides information on learners who progressed from 1st year to 2nd year.

Retention of FET originated learners within the HE system, from the first year of academic courses into the second is 75% (738 learners in 2nd year of 2019/2020 academic year out of 983 learners in their 1st year in the 2018/2019 academic year). Looking at these figures in respect of ISCED fields, those that enrol in the first year of HE courses with a broad ISCED category of *Health and Welfare* have a greater retention rate of 86.3%.

According to Piggot and Frawley (2019) retention rates during the period of 2008 to 2016 ranged from between 82% and 86%, thus the 75% retention rate may raise concern. However, restricting the scope of retention to just assessing retention among learners who, firstly enrolled in courses under the *Health and Welfare* ISCED category and secondly enrolled in NFQ Level 8 courses only, successful retention of learners within HE is improved to an 89.4% retention rate.

In addition, our methods do not take into account learners who are on courses that last only one year and who, therefore, will not contribute to retention rates. In Table 15 above, it is shown that only 679 of the 983 first year enrolments are in Level 8 Courses (69%), while 30% of enrolments are in Level 6 and 7 courses. These courses may last less than one year and as such their inclusion may skew results here.

In relation to members of the cohort who transitioned directly to second year of a Health and Welfare course in the 2018/2019 academic year, there was a 100% retention rate of those learners into the third course year of the 2019/2020 academic year. These figures are presented Table 19 below.

Course Year	Academic Year		Course Year
	2018/2019	2019/2020	
1	349	312	2
2	10	10	3

Table 19 Figures for the number of learners who transitioned from first year in the 2018/2019 academic year to second year in the 2019/2020 academic year and from second year in the 2018/2019 academic year to third year in the 2019/2020 academic year, all within the Health and Welfare ISCED category at NFQ level 8

Section 6

Conclusions

6 Conclusions

This paper presents the outcomes of learners aiming for Level 5 and advanced/ higher certification in specific courses with health focused curricula. Our research has produced several interesting and valuable findings. Firstly, it is apparent that learners engaged in health-related FET courses have improved employment prospects following FET completion. Our analysis identifies a substantial increase in the number of learners qualifying under the *Employment Only* outcome. Indeed the share of the healthcare learners in *'substantial employment only'* improved by 36 percentage point from 23% in 2016 (pre-enrolment year) to 59% in 2020 (2 years after completion).

Secondly, the research has demonstrated significant efficacy of FET training in terms of aligning skills for employment in the health sector. Following course completion, the employment of this cohort in the Health sector increased by 158% from their level prior to enrolment. This point is particularly pertinent considering the employment distribution of the wider population, where the *Human Health and Social Work Activities* sector is ranked fourth in terms of numbers in employment (CSO, 2021). In Section 5.1.1 it was identified that this cohort was mainly employed in the Human Health and Social Work Activities sector. In the 3 years from 2018 to 2020, employment in the Health sector accounted for between 46% and 51% of those in employment. Significantly, there was no decline in Health sector employment among the cohort in relation to Covid-19 disruptions to the economy in 2020.

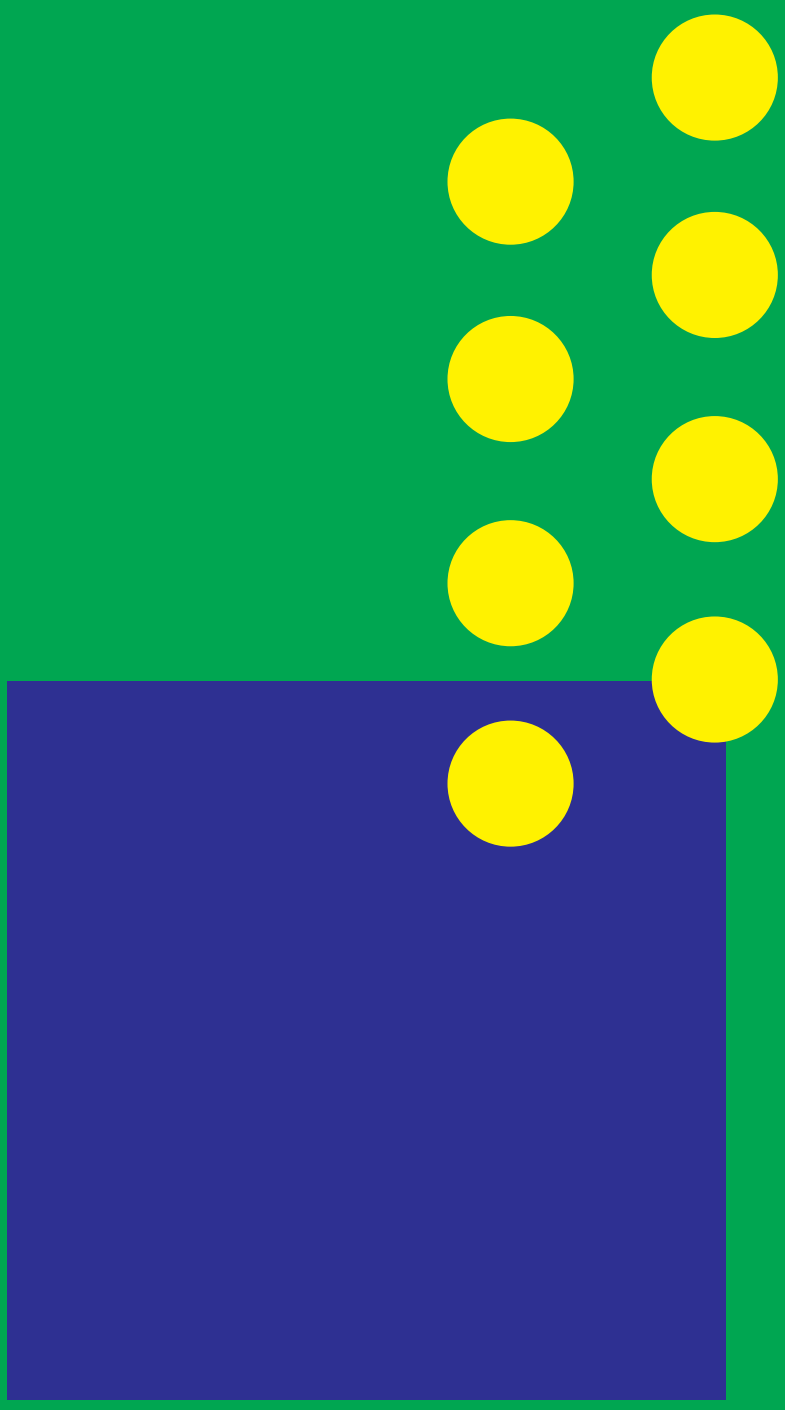
In addition to more promising employment prospects, learners in the healthcare cohort can also expect to earn a higher salary following completion of their FET courses. In section 5.1.2 it was established that learners earn a substantially better weekly wage in the year after completion of their FET courses relative to before completion, with a 67% increase in median weekly salary from €256 in 2017 to €427 in 2020, with their main employer.

In terms of education progression, the FET courses provide valuable opportunities and clear pathways into higher education for the healthcare cohort. The total number of healthcare learners who progressed to the HE in 2018/2019 was 1,015, representing an initial progression rate of 10%. An analysis of learners who completed Pre-Nursing PLC courses revealed stronger pathways into higher education: 26% progressed to higher education in 2018, increasing to 31% in 2019.

Our results demonstrate that there was good uptake in cognate fields following completion. In section 5.2.1 it was identified that almost 80% of subset of the healthcare cohort that made the transition from FET to HE did so by enrolling in courses under the three most relevant ISCED categories to their chosen FET studies; Health and Welfare; Natural Sciences, Mathematics and Statistics; and Social Sciences, Journalism and Information. Furthermore, by following learner records from the 2018/2019 HE academic year into the 2019/2020 academic year, it was demonstrated that there was a high retention rate of 89.4% for learners progressing from first to second year of study in level 8 health and welfare courses. In their study Eivers et al. (2002) refer to a number of potential barriers to retention among HE students including a lack of preparedness for college and transitional issues from secondary to tertiary education. Our findings highlight the efficacy of FET in preparing learners for HE education. This point is particularly relevant considering the potential economic and social pressures on FET graduates who are often mature students (64% of learners were over 25) and have low levels of previous education (66.9% in this study only have secondary education).

Section 7

References



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APPENDIX 1

Broad ISCED Field	Percent
Health and welfare	79%
Social sciences, journalism and information	6%
Arts and humanities	5%
Natural sciences, mathematics and statistics	3%
Business, administration and law	3%
Services	2%
Engineering, manufacturing and construction	1%
Agriculture, forestry, fisheries and veterinary	1%
Education	1%

Table 1. ISCED of Level 8 HE destination courses (Academic Year 2018/2019) for 2018 Pre-Nursing Learners

Broad ISCED Field	Percent
Health and welfare	77%
Social sciences, journalism and information	5%
Arts and humanities	5%
Natural sciences, mathematics and statistics	4%
Business, administration and law	3%
Engineering, manufacturing and construction	1%
Services	1%
Education	1%
Information and Communication Technologies (ICTs)	1%
Agriculture, forestry, fisheries and veterinary	0%

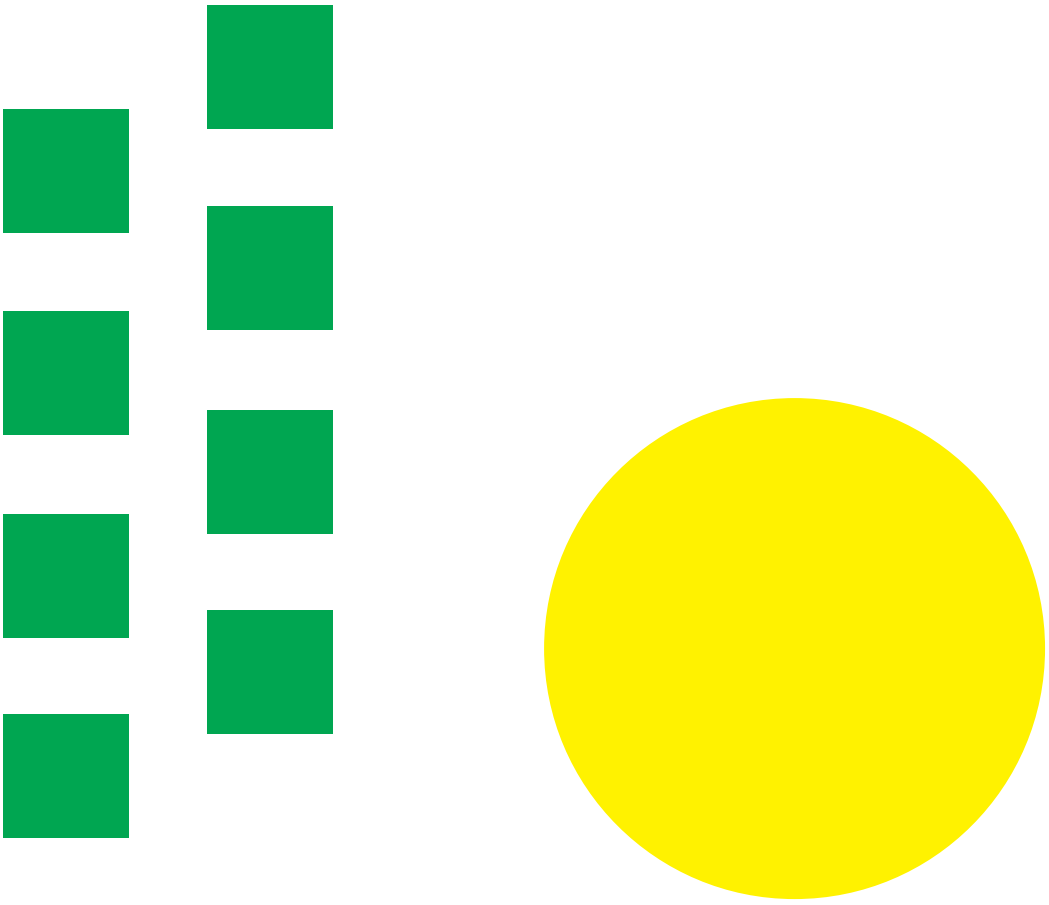
Table 2. ISCED of Level 8 HE destination courses (Academic Year 2019/2020) for 2018 Pre-Nursing Learners Further analysis of learners that progressed to Health and Welfare categorised ISCEDs

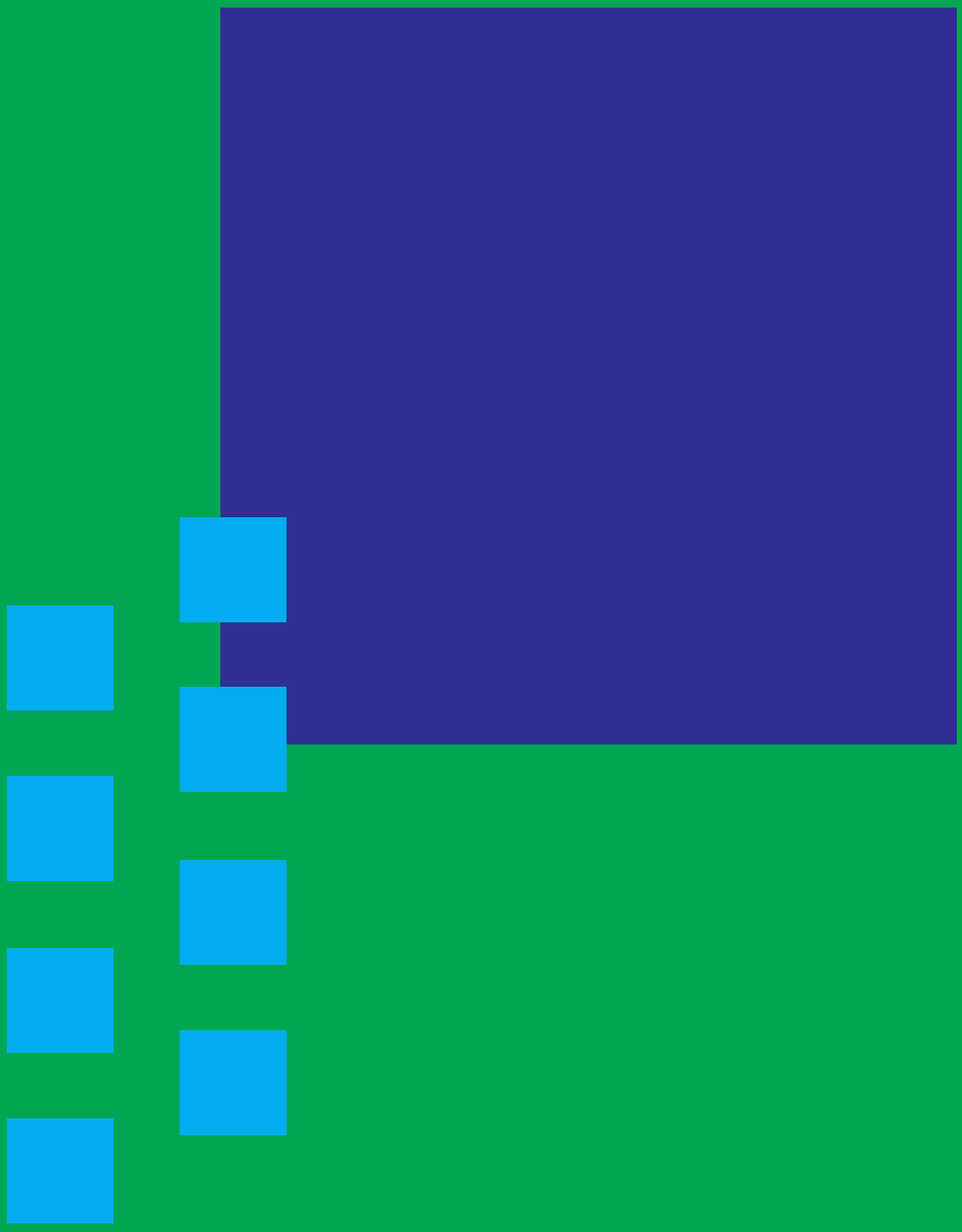
Further analysis of learners that progressed to Health and Welfare categorised ISCEDs

Of the 267 learners that progressed to Health and Welfare categorised HE courses in the 2018/2019 academic year, 75% (200) enrolled in NFQ level 8 nursing courses. A further 16 learners (6%) enrolled in other courses that educate graduates for front line caring roles such as midwifery, speech and language therapy. The remaining 51 learners (19%) enrolled in courses such as Early Childhood Care and Social Care.

In the following academic year (2019/2020) a greater proportion of learners (26%) were enrolled in other non-nursing related courses. These learners were enrolled in courses such as Radiation Therapy, Dental Science, Medical and Health Science, Occupational Therapy, Health Science and Athletic and Rehabilitation Therapy, in addition to Midwifery.

It appears that Pre-Nursing FET courses are suitable pathways to HE for both Nursing and other non-Nursing related health courses.





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