PLC Outcomes Report

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ADC	Administrative Data Centre, CSO
ATI	Accounting Technicians Ireland
BSc	Bachelor of Science Degree
CIBTAC	Confederation of International Beauty Therapy and Cosmetology
CSO	Central Statistics Office
DCU	Dublin City University
DEASP	Department of Employment and Social Protection
ELD	Educational Longitudinal Database, CSO
FET	Further Education and Training
HE	Higher Education
HEA	Higher Education Authority
ICT	Information and Communications Technology
IoT	Institute of Technology
ISCED	International Standard Classification of Education
ITEC	Provides international qualifications in a range of different fields
NACE	European Industrial Activity Classification
NFQ	National Framework of Qualifications
PLC	Post Leaving Certificate Course
PLSS	Programme Learner System Support Database, SOLAS
PPSN	Personal Public Service number
P-POD	The Post Primary Online Database
QQI	Quality and Qualifications Ireland
SOLAS	The Further Education and Training Authority

1 Legal Framework underpinning this 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/

2 Introduction

Post-Leaving Certificate (PLC) courses form part of the provision of the further education and training (FET) system. The courses are full-time courses and in general the learner cohort consists of

- young people who completed their Leaving Certificate
- adults returning to education
- unemployed people seeking to gain new skills to transition back into the labour market

PLC courses combine general education, vocational training and work experience over a single academic year and lead to major awards at Level 5 or 6 on the National Framework of Qualifications. PLC provision consisted of 842 courses in 2018 with approximately 28,000 learners starting on programmes in a wide range of subject areas including, but not limited to, IT, Business Studies, Nursing, Science, Childcare and Fitness. PLC provision has two overarching aims, which is to provide successful participants with specific vocational skills to

- enhance their employment opportunities or
- facilitate their progression to additional education and training

Therefore as an essential component of the FET system, it is important that SOLAS has insight into the impact and value of PLC courses for our learners. The development of the Programme and Learner Support System (PLSS) database in SOLAS has provided us with comprehensive real time information on actual learner profiles and trends, allowing detailed comparisons since 2017. Previously the PLC learner records were captured in P-POD by the Department of Education and Skills. Following agreement between SOLAS and the CSO we are in a position to link both P-POD and PLSS PLC records to administrative datasets that are housed in the CSO Administrative data centre (ADC), i.e. higher education enrolments and revenue datasets to generate evidence of FET outcomes and impact. In addition, this project has benefited from a new statistical framework known as the ELD (see Section 1) developed by the CSO. This framework is produced by matching datasets from the Education sector to other public sector datasets which describe graduate outcomes in subsequent years.

In order to analyse the progress of PLC graduates, we examine data on three PLC cohorts from 2012-2014 and link each learner with the Educational Longitudinal Database to determine their outcomes. Our results indicate that:

- 48 percent of 2014-2015 PLC graduates were in substantial employment only after two years, representing a 7 percentage point increase vis a vis the 2012-2013 cohort
- For the same cohorts, we find a decrease in the proportions of those graduates who continue their education and those neither in higher education or substantial employment one year after completion
- A significantly large proportion (almost 27 percent) of those in substantial employment work in the wholesale and retail sector, accommodation and food service (16 percent) and in human health and social work activities (15 percent)
- The median weekly wage of a PLC graduate in substantial employment within a year of completion was €253.6 increasing to €431.5 within six years

Our results will have significant policy implications in various ways. For example, SOLAS is currently working on an FET-HE Transitions project which forms part of a wider Department of Education and Skills review of progression across the education system more broadly. Within the FET project, a key feature is mapping FET-HE progressions, and the vast majority of these progressions relate to PLC learners. As per the dual aims of the PLC programme it is also key that we examine the employment outcomes for those learners who transition into the labour market following their studies. Therefore in this paper we first outline the general profile of the PLC learners. Next we introduce the data used and we explain our methodology. In the results sections, we present our analysis which has been undertaken by SOLAS. Our results provide important and new information on both the profile and outcomes of the PLC graduates.

3 PLC Learner Profiles

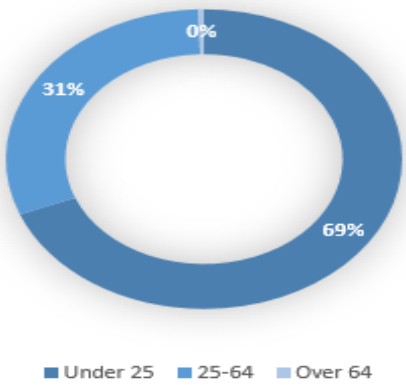
In 2017, there were 27,454 unique learners who started on a PLC course, accounting for the largest number of learners in a FET programme. The background of the learners were very diverse, representing over 119 different nationalities. Table 1 below shows the top 10 nationalities enrolled in all PLC courses.

Table 1: Learner Nationality

Nationality	Learners
Irish	14,499
British	421
Polish	400
Lithuanian	177
Nigerian	135
Latvian	103
Romanian	87
Italian	65
South African	62
Spanish	53
N/A	10,337

The majority (69%) of the 2017 starters were under the age of 25 and 60% were female. The learners were asked their prior highest educational attainment, almost half of respondents had a Leaving Certificate, with an additional 22 percent indicating that they had achieved a post-secondary non-tertiary degree.[1]

Figure 1: Starting age of 2017 PLC students



[1] The response rate was 42 percent.

In terms of the area of study, a significant proportion of starters were enrolled in courses in the following ISCED fields of learning: Health and welfare, services, arts and humanities and business and administration and law. Some of the most popular courses within these broad areas of learning include Nursing Studies (Level 5), Early childhood care and education (level 5), Business Studies, Sports, recreation and Exercise (level 5). Almost 98 percent of all starters were enrolled in level 5 and 6 courses (77 percent and 21 percent respectively), and a small number (57) enrolled in the level 8 BA (Hons) Degree in Media Production Management.[2]

Table 2: ISCED field for 2017 PLC starters

ISCED Field	Learners	Percent
Health and Welfare	5740	20.91
Services	5429	19.77
Arts and Humanities	4631	16.87
Business and Administration and Law	4373	15.93
Education	2487	9.06
Information and Communication Technologies	1574	5.73
Engineering, Manufacturing and Construction	1229	4.48
Agriculture, Forestry, Fisheries and Veterinary	999	3.64
Natural Sciences, Mathematics and Statistics	388	1.41
Generic Programmes and Qualifications	349	1.27
Social sciences, Journalism and Information	255	0.93

In 2017, PLC provision was mostly QQI certified, with a small number of courses offering industry awards and UK awards among others. Almost 92 percent of all starters were enrolled on a QQI certified course, with the remaining on Pearson, ITEC, ATI, City and Guilds, CIBTAC, Department of Education and Skills and DCU certified courses. Among the 2017 starters, the completion rate was 82 percent.

[2]This course is delivered by Ballyfermot College of Further Education, City of Dublin ETB, and is certified by DCU and Dundee University.

4 Data and Methodology

The records of the PLC learners prior to 2016/2017 were originally managed by the Post-Primary Online Database (P-POD) system hosted by the Department of Education and Skills. This database collects personal data on the learners as well as a unique identifier (i.e. PPSN). Since 2016/2017, the Department advised schools who provide PLC courses to record PLC students on the Programme and Learner Support System (PLSS), the new centralised system hosted by SOLAS that collected learner data from the majority of SOLAS funded FET provision. In this report, we use records of PLC students who were enrolled on a PLC course in 2012/2013, 2013/2014 and 2014/2015 academic years to create our sample for analysis. The initial analysis is based on a sample of 4 different cohorts (including 2015/2016) of PLC students extracted from P-POD. Below is a Table(3) that shows the number of PLC enrolments for each year.

Table 3: Number of observations during data preparation

Year	Coded PLC	Valid PPSN	Last Instance	Completions
2012	35550	25810	17789	15472
2013	34022	25393	18454	17011
2014	33095	24981	18921	17042
2015	32454	24596	24596	24594

The first column shows the total number of students enrolled in a PLC course. In order to link the data from P-POD with ELD, the PPSN's were anonymised by the CSO and in the process some PPSNs were unmatched. Second column shows the reduced sample for each year. The next column indicates the total number of PLC enrolments by those students who are in the final year of their PLC studies. Finally the last column is the number of PLC students who have completed their course.[3] For example, out of 35,550 PLC records on P-POD only 15,472 learners in 2012 had valid PPSNs and completed their course.

Table 4: QQI Robustness Check

Year	QQI Awards	Last Instance	Completions
2012	13377	0.75	0.86
2013	13960	0.76	0.82
2014	14472	0.76	0.85
2015	19139	0.78	0.78

In 2015, there were no records of *early leave date* in P-POD, therefore the final column includes early leavers as well as completers for this cohort. Furthermore, as this was the last PLC cohort in P-POD we may not accurately capture the final instance of the learner in 2015/2016. We examined the QQI

[3]The last column excludes those flagged with an *early leave date* in the P-POD database.

award records for all cohorts and the results are presented above in Table 4. The number of learners who achieved QQI awards up to and including three calendar years after PLC enrolment are shown in the second column.[4] The fraction of learners who achieved QQI awards from the last instance and completion columns of Table 3 are calculated and shown in the final two columns respectively. For example, 86 percent of the 2012/2013 completers and 75 percent of the total sample (including early leavers) achieved QQI awards. The inclusion of the 2015/2016 cohort containing additional early leavers without certification could potentially bias our results. Therefore we consider only the 2012/2013, 2013/2014 and 2014/2015 cohorts for analysis.

In order to examine the outcomes of the above mentioned PLC students we used the *Educational Longitudinal Database* (ELD) developed by the CSO. This framework is produced by matching datasets from the Education sector to other public sector datasets (e.g. Revenue, DEASP, QQI and HEA) which describe graduate outcomes in subsequent years. Currently, this dataset covers the years 2006-2018, which can be used to produce a longitudinal record of each learner. This database allows us to produce the following outcomes for each learner:

- **Employment Only -** Worked at least 12 weeks in the year earning at least 100 Euro a week on average from their main employer or have significant self-employment (in excess of 1000 Euro). Must have no record of enrolment in HEA database in the year of question.
- **Employment and Higher Education -** Must meet above conditions of employment but also have a record of enrolment in HEA database.
- **Higher Education Only -** Must have a record of enrolment in HEA database in the year of question but not meet the definition of employment.
- **Neither Employment nor Higher Education -** Does not meet the definition of employment nor do they have an enrolment record in HEA but they do have some record of employment, benefits or education in the ELD for the year of question.[5]
- **Not Captured -** No record of either employment, benefits, or enrolment in education in the ELD for the year in question.

As can be seen above, the learner outcomes are divided into five mutually exclusive outcomes. Similar outcomes analysis was carried out in a recent CSO-HEA report on Higher Education Outcomes.[6] The ELD also includes information on the weekly wage and the sector of employment of those who are in employment. In section 5.1, we examine the destination of PLC graduates in

[4] NFQ level 5 and 6 further education major and minor QQI awards are considered.

[5] At the time of writing the ELD contained data from Revenue (P35 and F11), DEASP, P-POD, SOLAS, QQI, Springboard and Student Universal Support Ireland

[6] https://www.cso.ie/en/csolatestnews/presspages/2018/highereducationoutcomes-graduatesof2010-2014/.

terms of their sector of employment and evolution of their median weekly wages over a period of 5 years after completion.

In order to carry out a more in-depth analysis on progression in particular on FET-HE transitions, we linked 2012-2014 data from P-POD and 2017 data from PLSS with the HEA enrolments data. We are specifically interested in two aspects of PLC progressions into the HE. First, we want to examine to what extent the pathways from PLC to HE take place between cognate disciplines. Second, as part of the progression outcome, we are not only interested in the initial transition but also in their progression within HE.

5 PLC Outcomes

In this section, we capture the learner outcomes two calendar years after enrolment in the PLC programme. As discussed above, the outcomes were evaluated by linking the 2012-2014 PLC enrolments with the ELD to produce five mutually exclusive outcomes. Only those PLC students with a valid PPSN and who have completed their course are included in the sample cohort. Table 5 below show the proportion of each PLC cohort in *substantial employment only*, in *employment and higher education*, in *higher education only* or *neither in employment nor higher education*.

Table 5: Destination outcomes (proportions) for each PLC cohort two years after enrolment

	2012	2013	2014
Employment Only	0.41	0.45	0.48
Employment and Higher Education	0.13	0.14	0.16
Higher Education Only	0.14	0.12	0.11
Neither Employment nor Higher Education	0.28	0.25	0.22
Not Captured	0.04	0.04	0.03
Sample Size	15472	17011	17042

According to our analysis, the proportion of PLC graduates in *substantial employment only* had increased from 41 percent in 2014 to 48 percent in 2016.[7] In contrast, the proportion of those in *higher education only* or those *neither in employment nor in higher education* have decreased by 3 and 6 percentage points respectively. There has been a relatively small number (3-4%) of PLC students whose outcome records are *not captured* by the ELD over the years. These may be students who leave Ireland and go abroad to work or study.

5.1 Employment

Next we examine the subset of those PLC graduates who are in employment to determine the sectors they are employed in and the weekly wages they earn after graduation. Below is a Table (6) that shows the NACE sectors for the PLC graduates in employment two calendar years after enrolment (i.e. one year after graduation). The sample includes all 3 cohorts (2012-2014) and includes students who were in *substantial employment only*. The second column shows the national average for each NACE sector over the period 2014-2016 based on labour force survey (CSO) data. Wholesale and retail trade sectors were the largest employer in Ireland (i.e. 14 percent of national employment), followed by human health and social work activities (13 percent).[8] According to our

[7] The outcome of the 2012 PLC cohort is measured in year 2014, and the 2014 cohort is measured in the year 2016

[8] The CSO data is based on the Labour force survey (LFS) results and include all persons aged 15 years and over in employment by NACE Rev 2

results, 27% of PLC graduates were employed in the wholesale and retail trade, 16% in accommodation and food service activities and 15% in human health and social work activities.

Table 6: NACE sector outcomes for PLC employment sample

Nace Sector	PLC	National
Wholesale and Retail Trade	26.9	14.2
Accommodation and Food Service	15.8	7.3
Human Health and Social Work	14.6	13.0
Administrative and Support Services	8.6	4.0
Other	8.0	5.5
Industry	6.7	12.8
Financial and Insurance Activities	5.0	5.2
Construction	3.2	5.2
Information and Communication	2.5	5.0
Professional, Scientific and Technical Activities	2.4	6.3
Education	2.1	7.2
Transportation and Storage	1.9	4.3
Public Administration and Defence	1.4	4.5
Agriculture, Forestry and Fishing	0.8	5.3

Finally, in this section we investigate the earnings of PLC students. This analysis uses the 2012 cohort of PLC graduates who are in employment only and tracks their employment and earnings from 2013 to 2018. The Table (7) below shows the number of 2012/2013 PLC cohort employed in the year of graduation and over the following four years and their corresponding median weekly earning. The median weekly earnings were calculated based on the weekly earnings from their main employer only.[9]

Table 7: Numbers in employment only with median P35 weekly wage in Euro

Year	In Employment Only	Median Weekly Wage
2013	5074	253.46
2014	6343	305.38
2015	7473	334.66
2016	8182	367.53
2017	8944	395.03
2018	10133	431.50

As can be seen in Table 7, the number of 2012/2013 cohort in substantial employment only in calendar year 2013 were 5,074 out of the full sample of 15,472 (i.e. 33 percent), increasing to 10,133 by 2018 (i.e. 65 percent). The

[9] In many cases, a person is employed by more than one employer during a given year. The main employer is identified as the employer that pays the largest gross annual earnings to a given individual, based on the information on P35 form, Revenue.

initial median weekly earnings of this cohort was €253.5 in 2013 increasing to €431.5 in 2018 (i.e. an increase of 70 percent in five years).

5.2 Progression

In the above section, we have focused on the employment outcomes of PLC graduates, however, a significant proportion of PLC provision is also progression focused. In this section, we examine the education outcomes of the PLC graduates for the three cohorts one year after completion. The overall results are presented in Table 5 (page 11). The ELD dataset provides two outcome options related to progression in education: the graduates can be in *higher education only* (i.e. no evidence of substantial employment) or they can be in *higher education and in employment*. Our results indicate that in total 27 percent of 2012/2013 cohort were in higher education in 2014. The next class of PLC had 26 percent of its graduates in higher education in 2015, followed by 27 percent in the subsequent year. The breakdown of progression into two mutually exclusive categories suggest that as the Irish economy started its recovery in 2013 through 2016, the number of PLC graduates who progressed into *higher education only* decreased by 3 percentage points from 14 percent to 11 percent. In contrast, a more stable proportion of graduates, on average 14 percent, were in education and in substantial employment over the same period.

As mentioned above, an important policy question is how individuals progress through the education system. Until recently our understanding of the pathways from FET into HE was based on anecdotal evidence due to lack of reliable data and shortage of data linkages. In the final section we provide new evidence on FET to HE transitions using both the P-POD cohorts and a new dataset PLSS (2017).[10]

[10]Some analysis in section 5 could not be carried out using PLC data in P-POD because information on the ISCED field of learning was missing. However, PLSS provides us with 2-digit and 4-digit ISCED codes for the course.

6 FET - HE Transitions

In this section, we address the question of progression from FET to HE, however, this time we are interested not only in the initial transition but also the subsequent years. Here we will examine, how well PLC graduates do in terms of their progress within HE. Anecdotal evidence suggests that PLC graduates have a good year-on-year progression rate within the HE. Many IoTs find that they are more mature and driven and hence are more likely to complete the first two years. In order to investigate this, we link the PLC cohorts 2012-2015 with an appended dataset of HEA enrolments for the years 2012-2017. The dataset is constructed so that each observation represents an individual enrolment for one academic year. There are 15,256 unique learner progressions to Higher Education from PLC cohorts 2012/2013, 2013/2014 and 2014/2015. Table 8 below shows the patterns in initial FET-HE progression.

Table 8: First instance of HE enrolment after PLC completion

	2013	2014	2015
Enrolled same year	3628	3858	4093
Enrolled following year	550	575	568
Enrolled two years after	329	342	379
Enrolled three years after	289	375	-
Enrolled four years after	270	-	-
Total	5066	5150	5040

The data shows that of those PLC students who progress into HE the majority enrol in the same year as completing their PLC. For example, 3,628 PLC graduates from 2012/2013 cohort enrolled in a HE course in September 2013, another 550 enrolled in September 2014, 329 enrolled in September 2015. From the same cohort, there were still learners progressing onto HE in 2016 and 2017, up to four years after completion of their PLC course. Similar patterns can be observed for the other two cohorts.

The following table (9) suggests that the PLC provision provides solid progression pathways for those learners who want to get a third level education. As we know, the majority of the PLC learners complete a level 5 course. Below, we can see the level of HE course they enrol into. A significant number of PLC graduates enrol into a Level 8 course, accounting for 53 percent of all FET-HE transitions, followed by a further 30 percent enrolling into a level 7 course.

In the section below we address an important question with regards to the quality of the education provided by the PLC programme courses. It is important that the PLC graduates get accepted into a HE course, however, it is also equally or more important that they are equipped with the necessary knowledge and skills to complete their HE course. Based on studies carried out by the HEA, evidence suggests that if a student achieves satisfactory grades in the first

Table 9: NFQ Levels of Higher Education Courses

NFQ Level coding	Progressions	Percentage
8	8031	52.64
7	4528	29.68
6	2393	15.69
9	114	0.75
Other	190	1.25

two years and progresses onto third year, they are less likely to leave early.[11] In other words, if they are not suitable to complete a third level course, they will leave early in the first two years of their study.

The following analysis provides evidence on the number of PLC graduates who were able to complete the first two years of their study and progress into third year. The HE progression analysis therefore focuses on student re-enrolment (within the HE) in subsequent years of study. The analysis excludes third level programmes of short duration, e.g. most full-time level 9 Master's courses are one year in duration. In addition, many PLC learners progress directly into the second year of Level 6 Certificate courses, these are also excluded. Therefore to study progression (or non-progression) rates of PLC graduates in higher education, we restrict our cohort to those who progressed onto Level 7 and 8 courses only. Table 10 below shows the different programme types for which the 12,599 learners enrolled at level 7 and 8. The cohort is further restricted only to include undergraduate honours degree, general degree and diploma programmes as these courses would have a duration of at least three years. This reduces the sample size to 12,383 progressions, this cohort is used to study HE retention in the following subsection.

Table 10: Programme type for level 7 and level 8 PLC Progressions

Programme Type	Frequency	Percent	Cumulative Frequency
Undergraduate Honours Degree	7964	63.41	7964
Undergraduate General Degree	4300	34.24	12264
Undergraduate Diploma	119	0.95	12383
Certificate	77	0.61	12460
Undergraduate Certificate	33	0.26	12493
Undergraduate Occasional	29	0.23	12522
Postgraduate Diploma	14	0.11	12536
Professional Training Qualification	14	0.11	12550
Higher Diploma or Certificate	9	0.07	12559

[11] https://hea.ie/assets/uploads/2019/02/HEA-Analysis-of-Completion-in-Irish-Higher-Education-Report-Release.pdf

6.1 Higher Education Retention Rates

The progression (non-progression) rates are defined as the proportion of students enrolled in higher education that do (not) enrol the following year in the same degree programme. We consider only direct progressions (i.e. those who completed their PLC and enrolled in HE in the same calendar year) and those who entered year 1 of their degree course only. Furthermore, we ensure those who repeated years or changed degree course are only counted as progressing into the appropriate *course year*.[12] For example, consider a student who changed to a different degree in their second HE enrolment year and subsequently did not re-enrol in HE. For the purpose of this analysis, they are counted as not progressing into year 2.

Table 11: Sample cohorts for each PLC enrolment year

	2012	2013	2014	Total
Initial sample	4050	4181	4328	12559
Immediately enrolled in HE	3178	3367	3628	10173
Labelled course year 1 HEA	2874	3046	3304	9224

Table 12 below, shows the progression outcomes of the 2012/2013 PLC sample. Our results show that 2,137 learners (who were PLC graduates) progressed into their third or fourth year, representing 74 percent of the PLC sample enrolled in HE in 2013. The remaining students left their study early: 16 percent left after the first year and another 9 percent left after their second year of study.

Table 12: Non progression for PLC 2012/2013 sample in higher education

PLC 2012/2013	Frequency	Non Progression Rate %
Did not progress to year 2	467	16.25
Did not progress to year 3	270	9.39
Progressed into year 3 or higher	2137	74.36
Total	2874	

We apply the same analysis on the 2013/2014 and 2014/2015 samples. We find that the progression rates decreased to 72 percent and then to 61 percent for these PLC cohorts respectively. In other words, the non-progression rates increased from 26 percent to 28 and 39 percent over the years. Part of this increase can be explained by the economic recovery in Ireland and the strong labour market. As we showed earlier, the employment rates increased from 41 percent to 48 percent for the PLC graduates (see Table 5 on page 11) over 2014-2016.

A recent HEA study found that for progression from academic year 2013/2014 into 2014/2015, 27 and 16 percent of all entrants into IoT degrees NFQ level 7

[12] *course year* is a variable in the HEA enrollemnt dataset which indicates the year (1,2,3,4 etc) of the degree programme for each instance of enrolment.

Table 13: Non progression for PLC 2013/2014 sample in higher education

PLC 2013/2014	Frequency	Non Progression Rate %
Did not progress to year 2	522	17.14
Did not progress to year 3	331	10.87
Progressed into year 3 or higher	2193	72.00
Total	3046	

Table 14: Non progression for PLC 2014/2015 sample in higher education

PLC 2014/2015	Frequency	Non Progression Rate %
Did not progress to year 2	721	21.82
Did not progress to year 3	557	16.86
Progressed into year 3 or higher	2026	61.32
Total	3304	

and 8 respectively did not progress into year two.[13] The study shows 11 percent of all university entrants (NFQ level 8) did not progress into year two 2014/2015. Furthermore, completion rates based on graduations within institute up to the class of 2016 graduations where considered and the overall HE completion rate was 76 percent, with rates of 83 percent and 74 percent for university and IoT entrants respectively. The completion rate was 53 percent for students with Leaving Certificate points from 155-200 and 43 percent for those with 200-250 points.

In comparison with these HEA findings our results indicate that the retention rates of PLC graduates compare favourably to those in HE from lower Leaving Certificate points brackets. The progression rates of our PLC cohorts support the anecdotal evidence from IoT instructors that learners progressing from FET into HE have a level of preparedness drawn from the former experience which helps them complete their degree successfully.

6.2 Previous Experience in Higher Education

Unfortunately, we do not have data on the educational background of the 2012-2014 PLC cohort in P-POD. Instead we have HEA enrolment records so we link the PLC graduate records with earlier HEA enrolment data. The results are reported in Table 15. Our findings show that around 12 percent of the our total PLC sample over 2012-2014 were previously enrolled in a third level course.[14] In order to fully understand, the role of the PLC provision for this cohort we need further information on the level and the ISCED field of learning of the HE course they were enrolled in.

[13] https://hea.ie/assets/uploads/2019/02/HEA-Analysis-of-Completion-in-Irish-Higher-Education-Report-Release.pdf

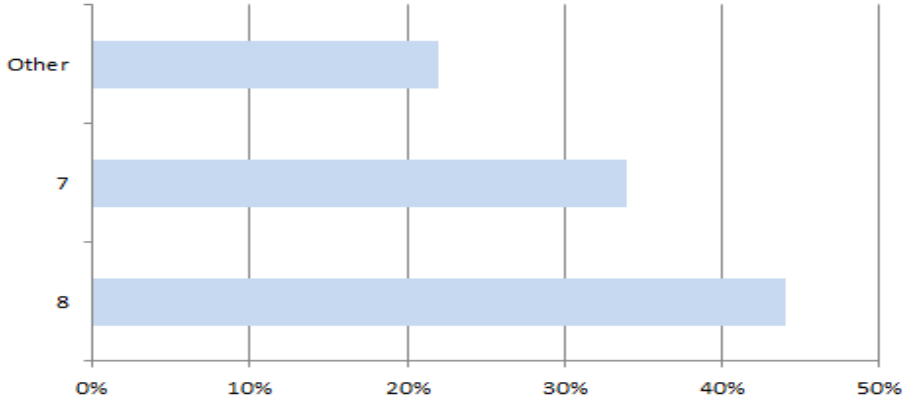
[14] Our analysis suggests that these persons were enrolled in a course in HE but not necessarily that they had completed their third level education.

Table 15: Number of learners who enrolled in HE before enrolling in PLC

PLC Enrolment Year	Enrolled in HE Previously	Proportion of Sample
2012	1989	0.13
2013	2023	0.12
2014	1937	0.11
Total	5949	0.12

Figure 2 shows the percentage breakdown of the NFQ levels for these pre-PLC higher education enrolments. The majority 44% are honours degree level 8 with 34% at level 7. These results suggest that learners do not necessarily follow a straight path from secondary education into FET and from FET into HE.

Figure 2: Distribution of the pre-PLC NFQ Levels



The ISCED fields of learning for these pre-PLC higher education enrolments are highlighted in Table 16. Business, Administration and Law represent the most enrolments followed closely by Arts and Humanities.

The PLC data 2012-2015 does not include ISCED field of learning eliminating the possibility of comparing fields between these higher education to PLC progressions. Comparing ISCED fields for those who complete their PLC course (with previous HE experience) and progress again into higher education will be possible when PLSS has gathered data for a number of PLC cohorts. This future work could help explain the role of PLC provision in these progression paths and uncover if learners change field of study via a PLC course to re-skill. Work is also underway to flag if these pre-PLC higher education individuals graduated from their higher education course with an award or left early.

Table 16: ISCED Field for pre-PLC Higher Education Enrolments

ISCED Field	Frequency	Percent
Business, Administration & Law	1208	20.6
Arts and Humanities	1153	19.67
Engineering, Manufacturing & Construction	773	13.18
Services	680	11.6
Information & Communication Technolgies	650	11.09
Natural Sciences, Mathematics & Statistics	477	8.14
Health and Welfare	425	7.25
Social Sciences, Journalism & Information	263	4.49
Not Defined	72	1.23
Generic Programmes	62	1.06
Agriculture, Forestry, Fisheries & Veterinary	58	0.99
Education	42	0.72

6.3 Analysis of HE Programme and NFQ Level

In this final subsection, we focus on the detail rather than the overall progression figures. An important aspect of progression is based on the subject area of study: to the extent that students see a PLC course as a stepping stone into a course in the same broad subject area (i.e. ISCED field of learning), the more likely they will be to progress into a similar course in HE and the more likely they will be able to complete their third level education.

In order to examine progression from a PLC course to higher education by field of learning, we used the PLSS data on 2017 PLC students. This sample was then directly linked with 2017 HEA enrolments data. Out of a total of 28,105 PLC learner completions, 5132 graduates were found to have progressed to third level education.[15]

The majority of progressions between PLC and higher education take place between courses of identical broad ISCED field: 63 percent of PLC students progressed on to HE in cognate fields. This figure is likely underestimating the actual progression between the same ISCED broad fields of learning, as upon closer inspection, we have noticed differences in ISCED coding between the HEA dataset and PLSS. For example, PLC graduates of Early Childhood Care and Education courses progress into similar courses in Higher Education (i.e. Bachelor of Arts in Early Childhood Studies) however, this is flagged as a mismatch in field of learning, as the PLC course is coded in Education and the HE course is coded in Health and Welfare broad ISCED field.

Table 18 overleaf (page 21) highlights the top 10 progression routes by ISCED field by volume: Six out of top ten most common transitions between FET and HE takes place in cognate disciplines in Arts and Humanities, Health and Welfare, Business, ICT, Services and Engineering, manufacturing and con-

[15] This sample includes only those students who have completed their PLC course in May-June 2017 and subsequently enrolled in a third level course in September 2017.

Table 17: Progression based on ISECD coding

	Frequency	Percent
Progressions into a different ISCED field	1751	37.46
Progressions into the same ISCED field	2923	62.54

struction. We also consider these progression movements as a proportion of of the total number originating from each field of learning. For example, 115 progressions occurred between cognate Natural Science courses yielding a rank of eight in the table. However, this represents 71% of the total number progressing from natural science PLC courses. Another example is ICT with 71% progression to cognate courses in HE. Closer inspection shows most Software Development and Computer Systems/ Networks graduates from PLC courses progress onto BSc courses in Computing and Software Development in HE.

On the other hand the most common transition mismatches occur between Education into Health and Welfare (Table 20), this progression route accounts for over half the total progression from Education, many of these mismatches can be explained due to differences in ISCED coding as explained above. The next highest mismatch combination by volume is that of Health and Welfare into Social Science, Journalism and Information. Closer inspection highlights many movements from practical and applied PLC courses in social care and practice to more theoretical courses of the same subject area. Progression into Bachelor of Social Science are popular and again highlight the difference in coding across the two educational institutions.

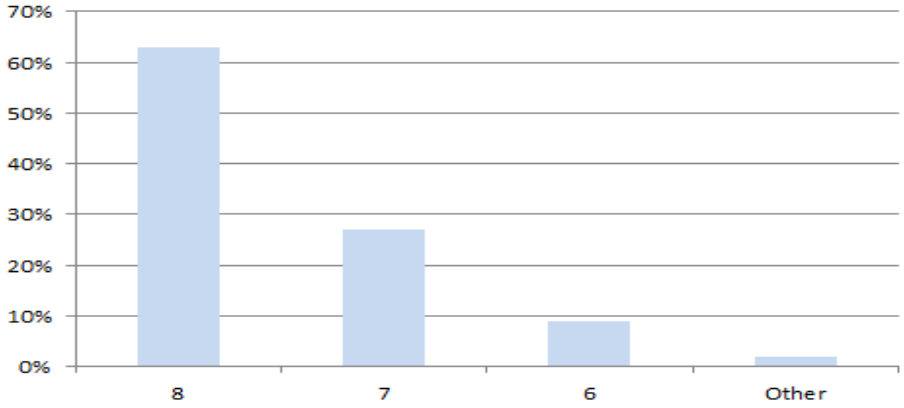
A significant number of the PLC graduates completing a course in Game Design and Development progress into a BSc in Computer Science Games Development in a third level education institution. However, this progression is marked as a transition from Arts and Humanities to an ICT course due to coding. Not all mismatches are due to differences in coding: mismatches occur, for example, when a graduate of a Photography (Level 5) course enrols into a degree course in Software Development.

The highest number of mismatch progressions as a proportion of the original ISCED field occur between Social Sciences, Journalism and Information into Arts and Humanities. There are strong similarities between these two fields of learning with many progression routes available and the high proportion of 57% progressing into Arts and Humanities reflects this.

Another important aspect of FET-HE transitions is the level of the degree course the PLC graduates are enrolling into. In 2017, as discussed in an earlier section 77 percent of PLC starters were enrolled in a Level 5 course with an additional 21 percent enrolled in a Level 6 course. The Figure below shows the percentage of the 5132 PLC graduates who progressed on to HE by level of the course they entered. As can be seen in Figure 3, 63 percent (3209) of all transitions were into Level 8 courses, followed by 27 percent (1395) enrolling into a Level 7 course. Only 17 out of 5,132 progressions was at Level 5 and 441 were into Level 6. The remaining 48 were enrolled into unknown levels and 22

were enrolled into Master's or Post-Graduate Diploma course.[16]

Figure 3: NFQ levels of PLC to Higher education 2017 progressions



Enrolment into higher levels (i.e. Level 9) illustrates the non linear nature of some progression routes. Learners with Level 7 or 8 degrees may take PLC courses in preparation for enrolment in Master's or Post-Graduate Diploma courses.

[16]Some NFQ levels are missing in HEA enrolment database.

Table 18: Progression movements by ISCED coding

Progression Movement	Frequency	Total	Proportion
Arts and humanities / Arts and humanities	733	977	0.75
Health and welfare / Health and welfare	672	1110	0.61
Business and administration and law / Business, administration and law	504	885	0.57
Information and Communication Technologies / Information and Communication Technologies	312	441	0.71
Services / Services	253	585	0.43
Engineering, manufacturing and construction / Engineering, manufacturing and construction	187	341	0.55
Education / Health and welfare	154	285	0.54
Natural sciences,mathematics and statistics / Natural sciences, mathematics and statistics	115	162	0.71
Health and welfare / Social sciences, journalism and information	98	1110	0.09
Arts and humanities / Information and Communication Technologies	91	977	0.09

The top 10 levels are displayed by decreasing volume.

Table 19: Progression movements for mismatching ISCEDs

Progression movements by ISCED field	Frequency	Total	Proportion
Education / Health and welfare	154	285	0.54
Health and welfare / Social sciences, journalism and information	98	1110	0.09
Arts and humanities / Information and Communication Technologies	91	977	0.09
Health and welfare / Arts and humanities	88	1110	0.08
Social sciences, journalism and information / Arts and humanities	78	138	0.57
Business and administration and law / Arts and humanities	77	885	0.09
Engineering, manufacturing and construction / Natural sciences, mathematics and statistics	63	341	0.18
Business and administration and law / Services	53	885	0.06
Services / Business, administration and law	51	585	0.09
Health and welfare / Services	50	1110	0.05

The top 10 levels are displayed for mismatching ISCEDs

7 Conclusions

The Post Leaving Certificate (PLC) programme is a full-time programme for young people who have completed their Leaving Certificate and adults returning to education. PLC courses are generally at National Framework of Qualification (NFQ) Level 5 or Level 6 designed to equip the learner with vocational and technological skills in order to get a job or continue with their studies.

This paper presents the outcomes of those students who have completed their PLC courses. The results are based on a graduate progress analysis that involves linking the records of students from P-POD database with a new framework developed by the CSO, namely the *Educational Longitudinal Database* (ELD). This new framework provides evidence with regards to the progression and labour market outcomes of those in education in subsequent years.

Our results indicate:

- 48 percent of 2014-2015 PLC graduates were in substantial employment only after one year, representing a 7 percentage point increase vis a vis the 2012-2013 cohort. If we include those graduates who are in employment and in higher education the rates increase from 54 percent to 64 percent.
- For the same cohorts, we find a decrease in the proportion of those graduates who continue their education and those neither in higher education or substantial employment one year after completion
- A significantly large proportion (almost 27 percent) of those in substantial employment work in the wholesale and retail sector, accommodation and food service (16 percent) and in human health and social work activities (15 percent).
- The median weekly wage of a PLC graduate in substantial employment within a year of completion was €253.6 increasing to €431.5 within six years. Considering that the sample of PLC graduates in our analysis mainly include those under 25 years of age who are mainly employed in the wholesale and retail sector, this median weekly wage is comparable to the CSO figures reported at a national level.
- In terms of progression outcomes, we find that a significant proportion of PLC graduates progress onto a HE course at a higher level within the same year of completion of their PLC course. Most progressions take place between cognate disciplines.
- Another significant finding from our analysis is that those PLC graduates who enrol in a HE course have a high progression rate within the HE, therefore suggesting high completion rates in subsequent years.[17]

[17] Further analysis will be carried out to find out the graduation rates for PLC students in the HE. HEA graduate data was not available at the time of writing.