HEA | HIGHER EDUCATION AUTHORITY
AN tÚDARÁS um ARD-OIDEACHAS

Analysis of Non-Progression among Higher Education New Entrants in Ireland, 2016/17 to 2021/22

February 2024

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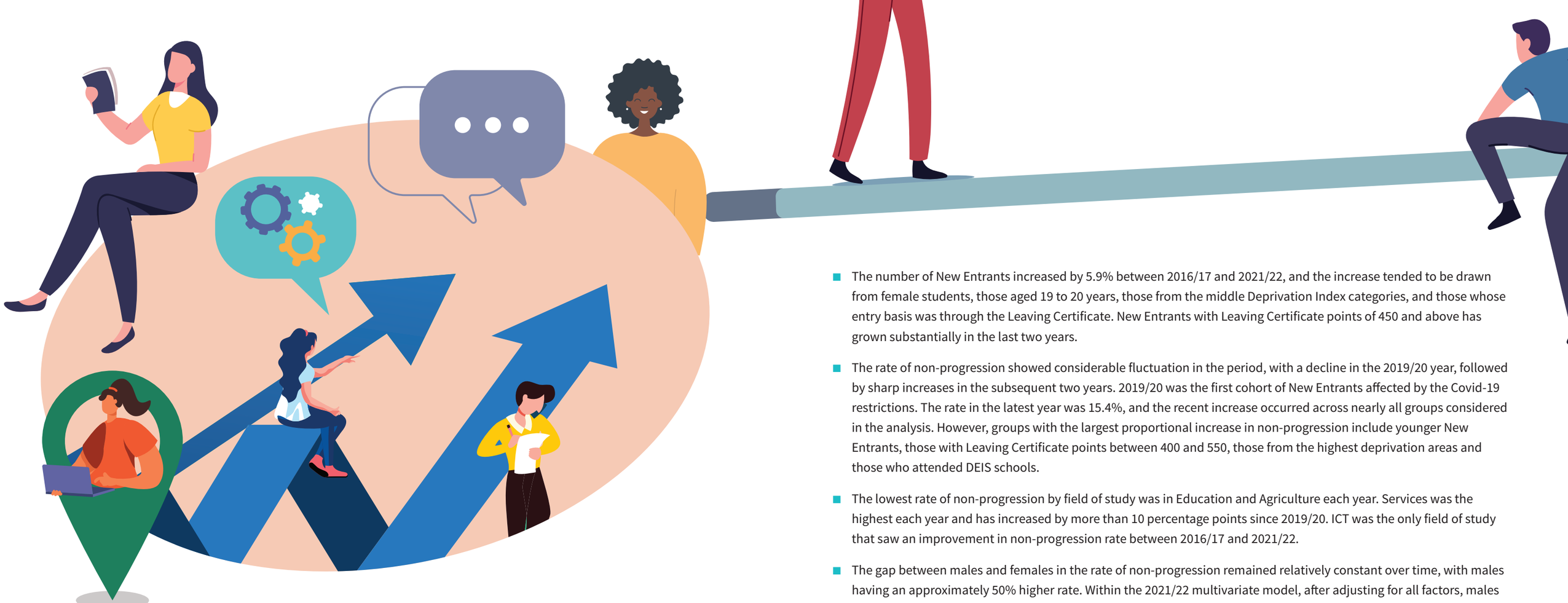
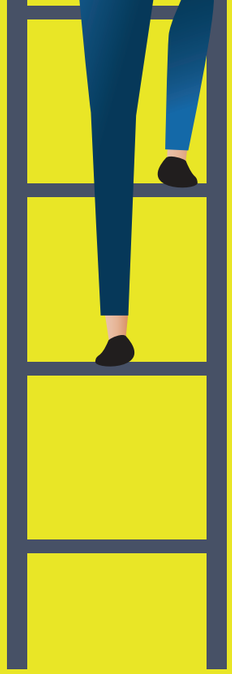


Executive Summary

- In 2021/22, the non-progression rate was 15%. In 2020/21, this was 12%, representing an increase of 3 percentage points.
- Services has the highest non-progression rate at 28%. This is followed by Engineering, Manufacturing & Construction at 20%.
- Between 2020/21 and 2021/22, Services has seen the largest increase in non-progression rate, from 21% in 2020/21 to 28% in 2021/22.
- Non-progression rates are highest amongst disadvantaged students, at 23%, and lowest amongst affluent students (12%).
- In 2021/22, females had a non-progression rate of 13%, while males had a non-progression rate of 18%.
- By NFQ Level, Level 7 entrants had the highest non-progression rate, at 31%, followed by Level 6 entrants at 25%, and Level 8 entrants at 14%.
- The number of New Entrants increased by 5.9% between 2016/17 and 2021/22, and the increase tended to be drawn from female students, those aged 19 to 20 years, those from the middle Deprivation Index categories, and those whose entry basis was through the Leaving Certificate. New Entrants with Leaving Certificate points of 450 and above has grown substantially in the last two years.
- The rate of non-progression showed considerable fluctuation in the period, with a decline in the 2019/20 year, followed by sharp increases in the subsequent two years. 2019/20 was the first cohort of New Entrants affected by the Covid-19 restrictions. The rate in the latest year was 15.4%, and the recent increase occurred across nearly all groups considered in the analysis. However, groups with the largest proportional increase in non-progression include younger New Entrants, those with Leaving Certificate points between 400 and 550, those from the highest deprivation areas and those who attended DEIS schools.
- The lowest rate of non-progression by field of study was in Education and Agriculture each year. Services was the highest each year and has increased by more than 10 percentage points since 2019/20. ICT was the only field of study that saw an improvement in non-progression rate between 2016/17 and 2021/22.
- The gap between males and females in the rate of non-progression remained relatively constant over time, with males having an approximately 50% higher rate. Within the 2021/22 multivariate model, after adjusting for all factors, males continued to have a higher likelihood of non-progression, but the unexplained differences were substantially narrowed.
- Younger age groups had lower rates of non-progression than older groups in each year, except the oldest age group, 30 years and over, who fared well compared to all other age groups in the most recent year. Differences by age group in the odds of non-progression among 2021/22 New Entrants were not statistically significant once observed factors were adjusted for.
- The geographical area from which a student comes was influential in their likelihood of non-progression, with higher deprivation areas associated with worse non-progression outcomes, even after adjusting for all observed factors.
- Higher Leaving Certificate points was associated with a lower rate of non-progression in each year and was the factor with the largest effect regarding the odds of non-progression within the 2021/22 year fully adjusted model. Among the lowest points groups in the most recent year, almost one in two New Entrants did not progress.
- New Entrants at DEIS schools had a higher odds of non-progression compared to students at standard schools, after adjusting for all factors in the model.



Chapter 1
Introduction

By many measures, Higher Education has been a success story for Ireland. At present, 63.9% of students transition from post-primary to higher education (Education Indicators for Ireland, 2023). According to the OECD, 63% of 25–34-year-olds have attained tertiary education compared to an OECD average of 47%, while 36% hold a bachelor's degree or equivalent compared to an average of 26% (OECD, 2023). Ireland has also exceeded the EU target of 40% of 30–34-year-olds holding tertiary education by 2020 (European Commission, 2010). Total enrolments at Higher Education have continued to grow in the period since 2016/17, while the total number of full-time undergraduates entering Higher Education for the first time has risen by 6% since 2016/17, to 45,195 in 2021/22. However, increasing Higher Educational attainment is a function not only of enrolments, but also the extent to which students go on to complete a qualification. Non-completion is of consequence at both individual level and at system level, and since 2007, the HEA has reported quantitative analyses of non-progression annually to provide stakeholders in Irish Higher Education with thorough and timely evidence on this important measure of success.

Progression is concerned with New Entrants' progression from the first year of their studies to the following academic year. This first academic year is a crucial period of transition for students and is the point at which they are at the highest risk of not continuing (HEA, 2019), while presenting institutions with the challenges and opportunities of integrating the new students into institutional and academic life (Barefoot, 2005). Differences in rates of progression capture a hugely complex set of circumstances and decisions, both legacy and contemporary. Socio-demographic background of students (Behr et al, 2020) and their prior academic performance (Reason, 2009) play an influential role in Higher Education outcomes. Different fields of study and institutional sectors are associated with different levels of completion. Students are also impacted by the broader social and economic context in which they find themselves in. Government restrictions associated with the Covid-19 pandemic were first introduced in March 2020, and students in the 2019/20 academic year were at the front line of the impact of campus closures and other measures. Murray et al. (2022) found that 58% of 20-year-olds in tertiary education reported difficulty with studies because of the changes from Covid-19, while 27% reported that they had missed exams because of it.

Internationally comparable measures of student progression and completion in higher education are difficult to develop because of the variety of systems of entry and access to higher education that exist across countries. These difficulties are compounded by methodological and definitional issues. As Van Stolk and his colleagues (2007) note, 'it is challenging to make comparisons between retention rates of countries given the differences in how retention and completion rates are defined and calculated'. The difficulties attendant upon making such comparisons are exacerbated by the range of terms used synonymously with 'retention'. Some terms implicitly attribute responsibility to the student (as exemplified by 'persistence', 'withdrawal', and 'drop-out') but much of the focus in more recent literature on retention has broadened to the learning environment, with responsibility for attrition shifting to the higher education institution or more broadly to the government. Notwithstanding the difficulties in interpreting international comparisons, OECD estimates of higher education completion published in 2017 suggest that Ireland was one of the top-performing countries with regards to completion of a bachelor's or equivalent programme for full-time students.

This report is the 13th in the HEA's series of reports on progression amongst New Entrants in Irish higher education institutions (HEIs). As with previous progression reports, this study is intended to provide quantitative evidence to underpin constructive and collective actions and interventions on the challenges faced by both students and the system. This report is timely, as it explores the trends in non-progression across time, from 2016/17 to 2021/22. The last six years has seen substantial change in the higher education landscape, and most relevant to this analysis, is the change in data requirements, and improvements to data quality and collection. In recent years, the HEA has established new data sharing agreements with SUSI, SOLAS, and the Department of Education, facilitating data exchange, and providing new contextual evidence. The HEA now has student-level information on Leaving Certificate attainment and points, and entry bases to higher education. Improved Eircode coverage has facilitated the assignment of Deprivation Index Scores to each student at small area code level, enabling a detailed view of the socio-economic profile of students at a geographical level for the first time. Moreover, improved PPSN coverage amongst the student population has facilitated tracking of students across higher education institutions for the first time. The next non-progression report relating to the 2022/23 New Entrants, will be the first report to include those who have transferred to another higher education institution as progressed. Increased Eircode and PPSN coverage are crucial for the development and maintenance of the Educational Longitudinal Database in the CSO, and as part of the National Data Infrastructure. Leveraging this, the HEA has worked closely with the CSO to explore the outcomes of New Entrants who do not progress. This capability represents a significant step forward for the HEA, enabling the HEA to understand the outcomes of students who do not progress, for the first time.

Student progression is affected by a wide-ranging and complex set of factors, beyond the scope of this analysis alone. Financial, mental health and wellbeing, and other qualitative measures are not included in this analysis. In 2023, the CSO reported the highest employment rate for people aged 15–64, the highest rate seen since data collection began in 1998. It's crucial to note that student retention does not necessarily reflect student success. Students may leave higher education for many reasons, such as employment, and indeed, return to higher education at a later stage. The sudden onset of Covid-19 led to unprecedented change, introducing new challenges and barriers for students and the public alike. The StudentSurvey.ie Interim Results Bulletin 2021 highlights some of the consequences of Covid-19 – a disruption in access to labs, a disruption in access to fieldwork, the lack of a collegiate environment, and a negative impact on mental health. Covid-19 has led to new methods in teaching and learning, and new interventions have been necessitated to combat some of these issues faced by the sector as a whole. The HEA has funded a range of initiatives, including the HEA Higher Education Healthy Campus Charter and Framework, the Student Success Toolkit, the Framework for Student Success, and the National Student Mental Health & Suicide Prevention Framework. Progression rates of students from disadvantaged areas and mature students from disadvantaged areas is also a key priority in the National Access Plan 2022–28.

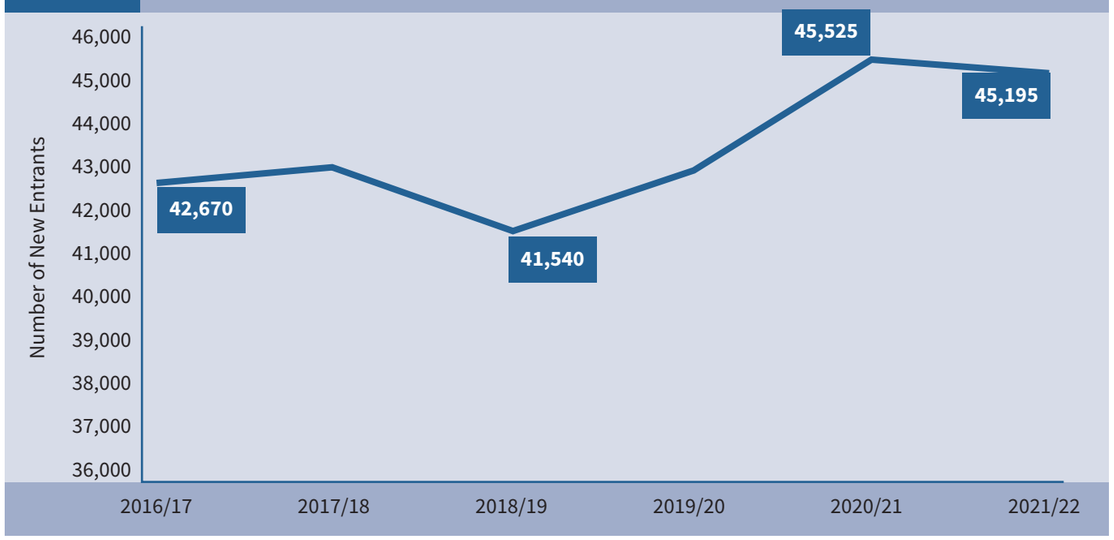
This report presents data on non-progression in higher education institutions in Ireland over the last six years. Examining the progression of students is fundamental to delivering an evidence base on the challenges and barriers to progression. Enriching understanding of the challenges and barriers faced informs strategic dialogue with higher education institutions, and moreover, informs national plans and strategies to improve the student experience.

Chapter 2 Overview

2.1 Overall Trend in the Number of New Entrants

There were 45,195 New Entrants in 2021/22, slightly lower than 2020/21, the year with the highest number of enrolled New Entrants. Overall, there was a 5.9% increase in the number of New Entrants between 2016/17 and 2021/22 (see Figure 1a). 2018/19 had the lowest number of New Entrants at 41,540.

Figure 1a: **Number of New Entrants, 2016/17 to 2021/22**



2.2 Overall Trend in Non-Progression Rate

The rate of non-progression exhibits a high degree of fluctuation over the six-year period (see Figure 1b). The early part of the observed period up to 2018/19 was relatively stable, and this is followed by a sharp decline to 9.1% in 2019/20. These students were the first set of New Entrants to be impacted by restrictions arising from the Covid-19 pandemic. In the following year, 2020/21, the rate of non-progression reverted closer to the historical average of approximately 12%, while in the most recent year, 2021/22, the rate of non-progression was 15.4%, substantially higher than all prior years in the observed period. 6,980 New Entrants from 2021/22 did not progress to the 2022/23 year. This compares to 3,880 non-progressed students from 2019/20 New Entrants, noting that the pool of total New Entrants was smaller in that year.

Looking at the non-progression rate by NFQ, New Entrants at NFQ level 8 had a substantially lower rate of non-progression compared to other NFQ levels in each year. While those at both NFQ level 6 and level 7 had a similar rate at the beginning of the period, those at level 7 had a proportionately higher rate than level 6 at the end of the period, so that by 2021/22 almost one in three students at NFQ level 7 did not progress, compared to one in four among those at level 6.

Figure 1b: **Overall non-progression rate 2016/17 to 2021/22**

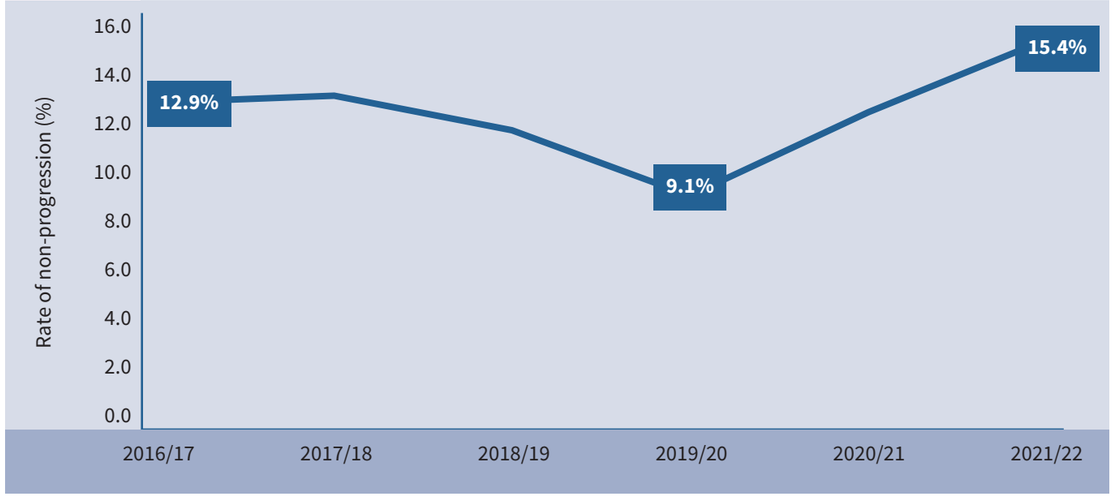


Table 2.1: Trend in Non-Progression Rates by NFQ Level (%)

NFQ level	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Level 6	23.1	21.6	22.2	16.0	20.2	25.2
Level 7	23.2	25.5	23.6	18.5	25.0	31.5
Level 8	10.4	10.8	9.6	7.5	10.7	13.5

By gender, male New Entrants had a consistently higher rate of non-progression throughout the period compared to females, by approximately 50% in each year. Among those identifying as non-binary or prefer not to say, the frequencies have been sufficient to report their non-progression outcomes in more recent years; these New Entrants had a higher rate than males in 2020/21, but, against the broader trend, their rate declined in the most recent year.

Table 2.2: Trend in Non-Progression Rates by Gender (%)

Gender	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Female	10.3	10.8	9.4	7.0	10.1	12.9
Male	15.6	15.7	14.4	11.4	15.2	18.4
Non-binary or prefer not to say	-	-	-	-	16.9	16.1

Chapter 3 Findings

Researchers have tended to understand differences in the student outcomes through the lens of distinct antecedent and contemporary dimensions. Differences in sociodemographic background of students, differences in prior educational experience and academic achievements, and differences in Higher Education circumstance and choices all contribute differentially to non-progression outcomes among New Entrants to Higher Education.

Aligning to this theoretical perspective, this Chapter is organised by analysis of non-progression outcomes in the following clusters of factors:

1 Higher Education Factors	2 Socio-Demographic Factors	3 Leaving Certificate Attainment	4 Secondary School Factors
■ ISCED Field of Study ■ NFQ Level ■ Higher Education Institution	■ Gender ■ Age Group ■ Deprivation Index Score Group ■ Entry Basis	■ Leaving Certificate Points	■ Secondary School Type ■ Secondary School Gender

Within each of these sets of factors, analysis is provided in three parts:

- Trend in the Number of New Entrants, 2016/17 – 2021/22
- Trend in the Non-Progression Rates, 2016/17 – 2021/22
- Results of the Multivariate Analysis, 2021/22

The results of the multivariate analysis for 2021/22, employing a hierarchical binary logistic regression model, are presented in odds ratios.

The odds ratio is the likelihood of non-progression based on the institution one attends compared to the likelihood of non-progression of those in the reference category. A statistically significant odds ratio of greater than one means New Entrants had a higher odds of non-progression compared to the reference category, and less than one a lower odds of non-progression. Statistically significant results are shown in the p value columns. Odds ratios that are statistically significant at the 5% level are shown with one asterisk, at the 1% level with two asterisks, and less than 0.1% with three asterisks.

The modelling is built additively in four phases, M1 to M4 (in the same order as the sub-sections outlined above). The baseline model (M1) shows the odds of non-progression based on Higher Education Factors. M2 includes Socio-Demographic factors. In M3, ordinal categories of Leaving Certificate Points Attainment are added, and then in the final fully adjusted model, M4, Secondary School Factors are added. The results of the final model shows the odds of non-progression, after adjusting for all the parameters within the model.

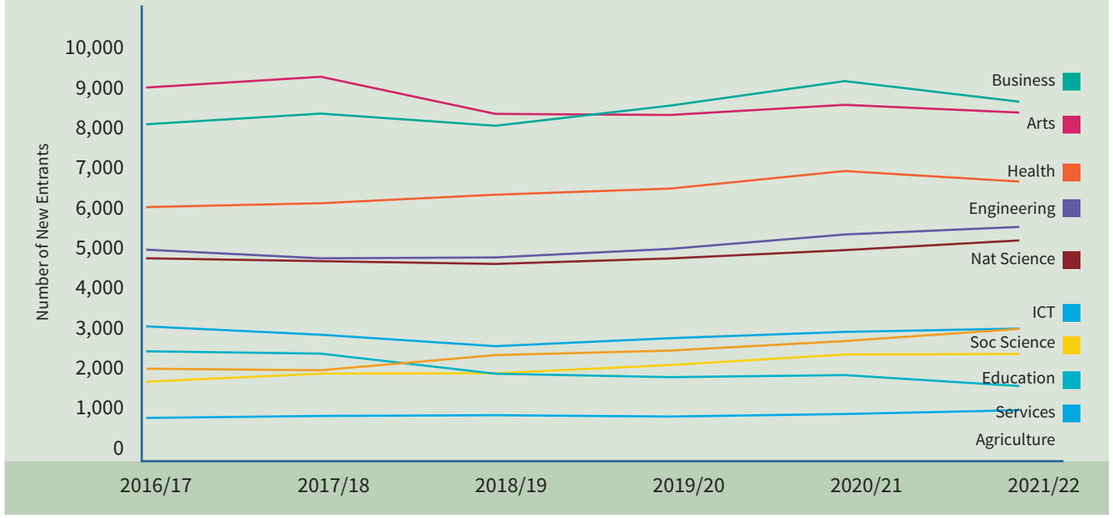
3.1 Higher Education Factors

3.1.1 *ISCED Field of Study*

Trend in the Number of New Entrants by Field of Study

Figure 2.1 looks at the trend in the number of New Entrants by field of study for the period 2016/17 to 2021/22. Business, Administration & Law (“Business”) and Arts & Humanities (“Arts”) had the highest number of New Entrants in each year, while Agriculture, Forestry, Fisheries & Veterinary (“Agriculture”) had the fewest. Social Sciences, Journalism & Information (“Social Sciences”) (48.8%) and Education (40.4%) had the largest percentage increase in New Entrants over the observed period, while Services (-35.1%), Arts (-6.9%) and Information and Communication Technologies (“ICT”) (-1.8%) declined in the number of enrolled New Entrants. By frequency, the fields with the biggest increase in New Entrants were Social Sciences (+982), Education (+683), Health (+630) and Engineering (+562).

Figure 2.1: **New entrants by field of study 2016/17 to 2021/22**

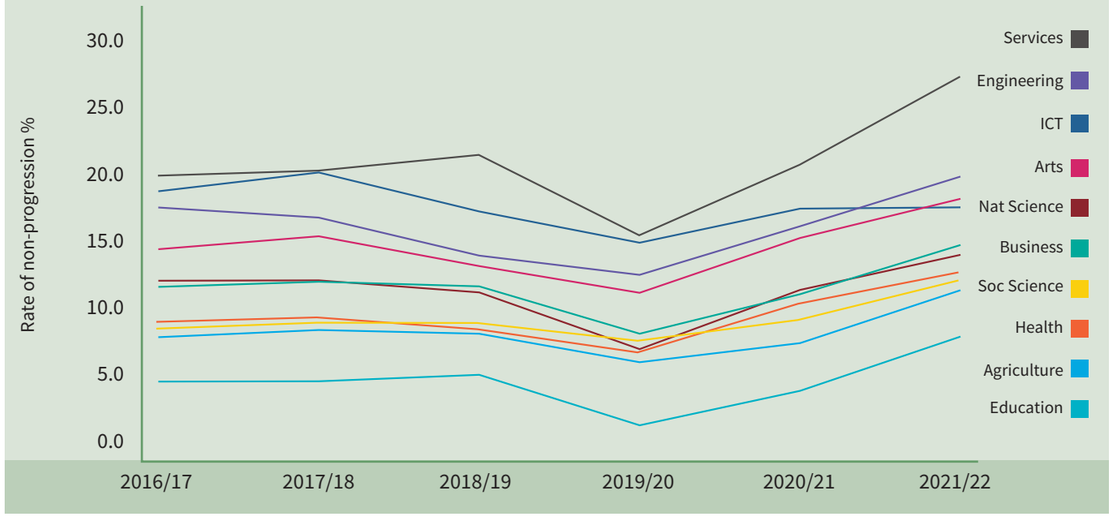


**Generic programmes excluded due to scaling*

Trend in Non-Progression Rates by Field of Study

Education had the lowest rate of non-progression in each period, followed by Agriculture and Health (Figure 2.2). Services had the highest and had a rate of 27.8% in 2021/22. All fields of study had increases in non-progression since 2019/20. Education increased by 151.2%, Social Science by 108.4% and Natural Science by 104.8%. ICT saw a relatively modest increase of 17.5% in this time, while Engineering increased by 55.4%. ICT was also the only field whose rate of non-progression was lower in 2021/22 compared to 2016/17.

Figure 2.2: **Non-progression rate by field of study, 2016/17 to 2021/22**



**Generic programmes not displayed due to scaling*

Non-Progression Rates by Field of Study and Gender in 2021/22

Figure 2.3 shows the rate of non-progression by field of study for 2021/22, and by gender. For all fields, males had a higher rate of non-progression than females. The largest differences were in Services (12.2 percentage points), Engineering (7.7 percentage points) and ICT (5.6 percentage points).

Figure 2.3: **Non-progression rate by field of study, stratified by gender 2021/22 only**

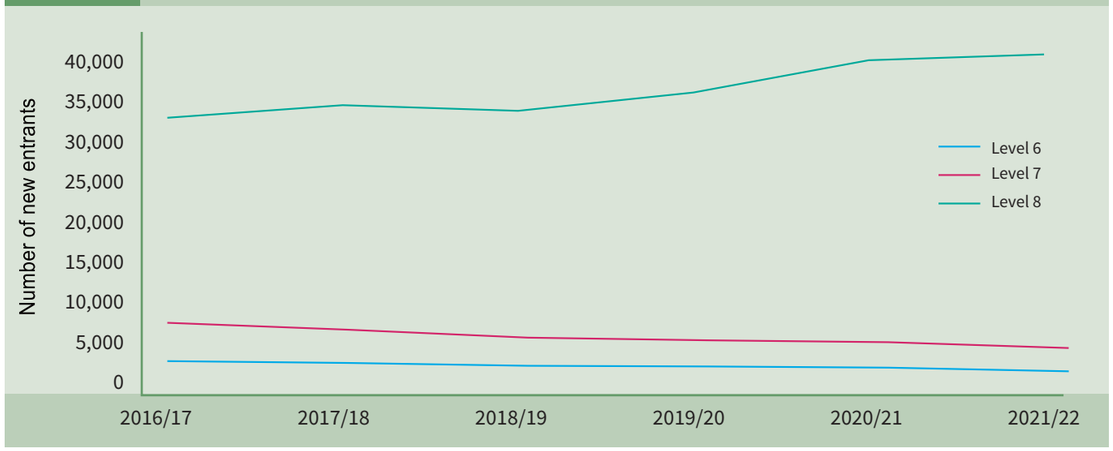
**Generic programmes excluded due to scaling*

3.1.2 *NFQ Level*

Trend in the Number of New Entrants by NFQ Level

NFQ level 8 has by far the largest number of New Entrants, accounting for 40,025 of the 45,195 total in 2021/22 (see Figure 2.4). Between 2016/17 and 2021/22, the number of Level 8 New Entrants increased by 16.7%, while level 6 declined by 49.2% and level 7 by 35.0%.

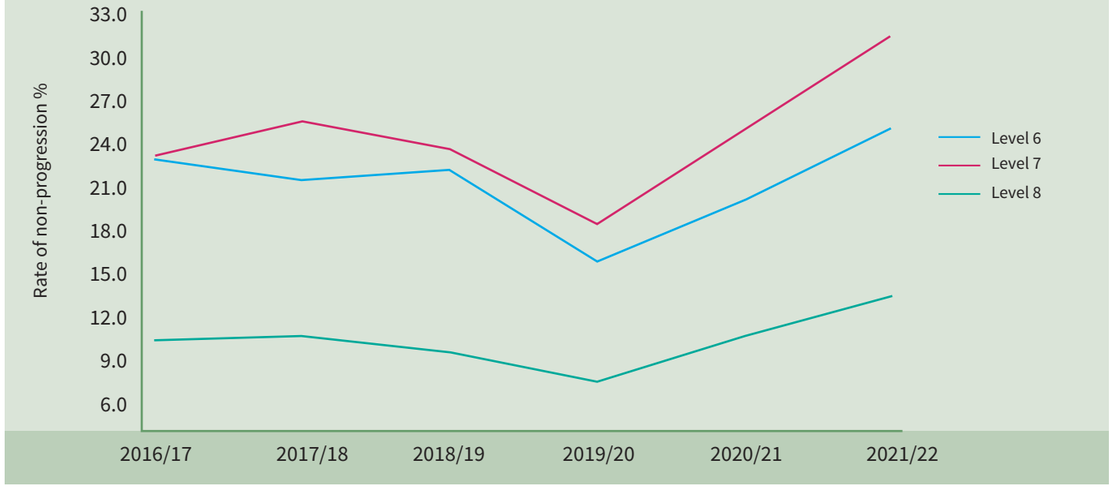
Figure 2.4: **Number of New Entrants by NFQ level 2016/17 to 2021/22**



Trend in Non-Progression Rates by NFQ Level

Figure 2.5 illustrates the non-progression rate by NFQ level over the period, and a similar pattern of decline and sharp increase that has been observed before is present for all three NFQ levels. In the 2021/22 year, almost one in three at NFQ level 7 did not progress (31.5%) and one in four at level 6 (25.2%); the comparative rate for NFQ level 8 was 13.5%. This 18.0 percentage point differential between the highest and lowest is wider than the equivalent gap in 2016/17 (12.7 percentage points).

Figure 2.5: **Non-progression rate by NFQ level 2016/17 to 2021/22**



3.1.3 *Higher Education Institution*

Trend in the Number of New Entrants by Higher Education Institution

Table 3.1 shows the number of New Entrants by institution per academic year, and the percentage difference between the first and most recent year. The 5.9% increase in the number of New Entrants is mainly attributable to increases among Universities. The total number of New Entrants at Technological Universities and Institutes of Technology showed a small decline. Among larger institutions (those with more than 1,000 New Entrants), Trinity College Dublin (25.4%), Maynooth University (17.6%), and University of Limerick (13.3%) saw the largest increases in New Entrants over the period. DKIT (-9.2%), ATU (-7.0%), SETU (-4.9%), IADT (-4.2%) and TU Dublin (-1.0%) all declined since 2016/17[1].

Table 3.1 Trend in the Number of New Entrants by Higher Education Institution

HEI	2016/17	2017/18	2018/2019	2019/2020	2020/2021	2021/2022	% Change since '16/17
RCSI	310	310	330	320	345	365	18.1
DCU	3,430	3,370	3,245	3,355	3,385	3,765	9.7
UG	3,310	3,320	3,215	3,290	3,395	3,360	1.5
MU	2,700	2,820	2,815	2,910	3,205	3,175	17.6
TCD	2,845	2,935	2,990	3,020	3,355	3,570	25.4
UCC	3,515	3,535	3,565	3,670	3,885	3,820	8.7
UCD	4,275	4,315	4,170	4,285	4,670	4,735	10.8
UL	2,565	2,510	2,440	2,745	3,020	2,905	13.3
NCAD	250	265	280	275	305	280	11.2
MIC	855	930	905	890	935	885	3.4
St Angela's	155	190	205	210	245	250	59.2
TUS	2,475	2,545	2,465	2,560	2,780	2,610	5.5
SETU	2,990	3,120	3,015	3,105	3,135	2,840	-4.9
MTU	2,630	2,675	2,325	2,485	2,755	2,700	2.7
TU Dublin	5,110	5,020	4,750	4,970	5,125	5,055	-1.0
IADT	545	555	500	495	540	520	-4.2
DKIT	1,155	1,125	1,035	990	1,145	1,045	-9.2
ATU	3,560	3,480	3,285	3,315	3,315	3,310	-7.0
Total	**42,670**	**43,020**	**41,540**	**42,895**	**45,525**	**45,195**	**5.9**

1 This presents data on full time New Entrant students only. Some institutions have seen an increase in remote and e-learning students during the period, and this is not included in this analysis.

Trend in Non-Progression Rates by Higher Education Institution

Table 3.2 shows the non-progression rate by institution for each year and the mean rate over this period for each. It also includes the percentage change between 2019/20 (the lowest non-progression rate in the period) and 2021/22. The institutions with the lowest six-year average non-progression rate were predominantly among Universities, with RCSI having the lowest (3.8% six-year mean). DKIT and ATU had the highest six-year mean (both 20.2%).

Turning to changes in non-progression since the low of 2019/20, the rate of non-progression increased in every institution since this point. Those with the highest percentage increase were Mary Immaculate College (140.5% increase), IADT (126.6%), University of Limerick (121.4%) and DCU (102.9%). By comparison, TUS (39.3%) had the lowest percentage increase since 2019/20, followed by UCD (43.7%), RCSI (52.4%) and NCAD (54.9%).

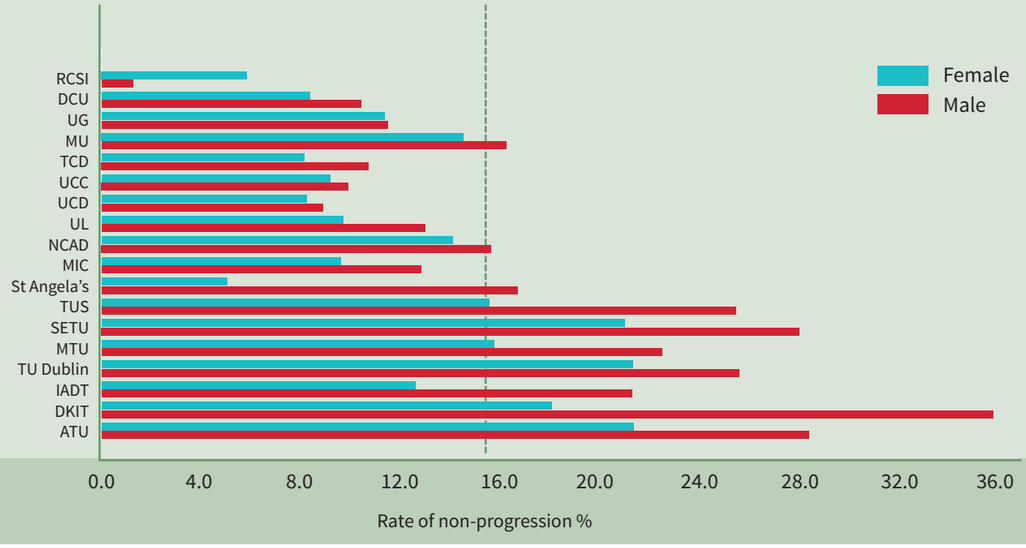
Table 3.2: Trend in Non-Progression Rates by Higher Education Institution

HEI	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	6-year mean	% Change since 2019/20
RCSI	3.9	2.6	7.0	2.5	3.2	3.8	3.8	52.4
DCU	7.6	9.9	7.4	4.6	6.8	9.3	7.6	102.9
UG	9.9	10.1	8.4	6.4	9.2	11.3	9.2	78.1
MU	12.1	13.5	11.0	8.8	11.9	15.2	12.1	73.2
TCD	7.6	7.3	7.0	4.9	7.2	9.1	7.2	85.2
UCC	5.7	7.2	6.2	5.3	8.4	9.5	7.0	81.2
UCD	7.7	7.7	8.1	6.1	6.7	8.7	7.5	43.7
UL	9.9	8.7	7.8	5.1	10.0	11.4	8.8	121.4
NCAD	10.8	9.4	10.0	9.5	14.2	14.7	11.4	54.9
MIC	6.1	5.4	4.5	4.3	6.2	10.3	6.1	140.5
St Angela's	5.1	6.3	7.3	2.9	6.2	5.6	5.6	95.8
TUS	17.2	17.9	15.2	14.8	16.8	20.7	17.1	39.3
SETU	19.7	20.3	16.9	14.2	21.4	24.6	19.5	73.7
MTU	17.3	15.1	13.5	11.9	17.0	19.4	15.7	63.2
TU Dublin	19.5	19.1	18.9	13.7	16.9	23.9	18.7	74.1
IADT	14.0	13.4	15.5	7.3	14.1	16.5	13.5	126.6
DKIT	18.1	20.4	18.3	16.1	20.8	27.4	20.2	70.7
ATU	20.8	21.9	19.6	13.6	20.0	25.1	20.2	84.9
Overall	**12.9**	**13.2**	**11.8**	**9.1**	**12.4**	**15.4**	**12.5**	**69.7**

Non-Progression Rates by Higher Education Institution and Gender in 2021/22

Figure 2.6 shows the rate of non-progression for each institution among 2021/22 New Entrants for both male and female gender. Except for RCSI, females had a lower rate of non-progression at each institution. The largest gender difference was at DKIT (17.7 percentage points), St Angela's (11.6 percentage points) and TUS (9.9 percentage points). The overall mean rate of non-progression for 2021/22 is shown by the dashed line.

Figure 2.6: **Non-progression rate by institution, stratified by gender 2021/22 only**



**Other genders not included due to scaling*

3.1.4 *Results of the Multivariate Analysis 2021/22*

When considering only Higher Education factors (M1), New Entrants at RCSI had a significantly lower odds of non-progression compared to the reference group, UCC, while all other institutions had either a significantly higher odds than students of UCC or the differences were not significant. Odds ratios for many of the Technological Universities are substantially higher compared to Universities. However, in these cases, as more factors are added, the differences reduce. For example, MTU students, when controlling only for Higher Education factors, had an 86% higher odds of non-progression compared to UCC students. After adjusting for sociodemographic factors (M2), they had a 94% higher odds. After adjusting for Leaving Certificate points (M3), the odds of non-progression were 21% higher, and in the final model which includes school factors (M4) MTU students were 21% more likely not to progress than UCC students.

Table 3.3: Results of the Multivariate Analysis 2021/22, Higher Education Institution only

Ref: UCC	HE factors (M1)		Socio-demographic (M2)		Leaving Cert (M3)		School factors (M4)	
	Odds ratio	P value	Odds ratio	P value	Odds ratio	P value	Odds ratio	P value
RCSI	0.49	*	0.52	*	0.47	**	0.49	*
DCU	1.05		1.03		0.89		0.89	
UG	1.15		1.08		1.02		0.99	
MU	1.57	***	1.51	***	1.05		1.06	
TCD	0.93		0.97		1.16		1.18	
UCD	0.92		0.95		0.92		0.93	
UL	1.23	*	1.21	*	1.16		1.17	
NCAD	1.25		2.88	***	1.76	**	1.71	*
MIC	1.39	*	1.38	*	1.12		1.13	
St Angela's	0.76		0.80		0.57	*	0.57	
TUS	2.08	***	2.13	***	1.16		1.15	
SETU	2.88	***	2.83	***	1.49	***	1.31	**
MTU	1.86	***	1.94	***	1.21	*	1.21	*
TU Dublin	2.47	***	2.43	***	1.50	***	1.50	***
IADT	1.48	**	2.10	***	1.13		1.13	
DKIT	2.90	***	2.80	***	1.61	***	1.61	***
ATU	2.72	***	2.60	***	1.46	***	1.46	***

3.1.5 *Summary of Findings on Higher Education Factors*

Students enrolled on NFQ level 8 courses had the lowest rate of non-progression, and the difference between level 8 and the other levels has increased in recent years. ICT is the only field of study that had a lower rate of non-progression in the most recent year compared to the start of the period. Education, Social Science and Natural Science has seen the largest proportional increase in the rate of non-progression since the low point of 2019/20.

New Entrants at Universities had a substantially lower rate of non-progression than those at Technological Universities. This gap is stable over the period monitored, despite a substantial increase in the number of New Entrants to Universities and a slight fall over the period for Technological Universities. For the 2021/22 year, those who attended a University tended to have a lower likelihood of non-progression compared to those attending a Technological University. When the two institutional sectors were analysed separately, the institution that one attends was not strongly associated with different non-progression outcomes.

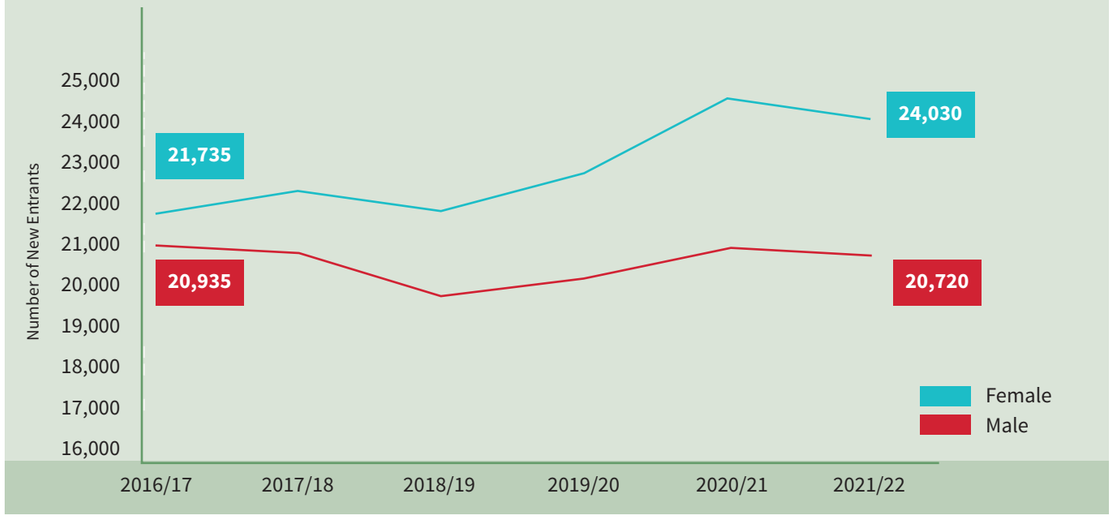
3.2 Socio-Demographic Factors

3.2.1 *Gender*

Trends in the Number of New Entrants by Gender

Figure 3.1 shows the number of New Entrants by gender throughout the period. There has been an expansion in the number of female New Entrants. Between 2016/17 and 2021/22, the number of females increased by 2,295 while males declined by 220. In 2021/22 there were 450 students who reported their gender non-binary or prefer not to say (not displayed).

Figure 3.1: **Number of New Entrants by gender 2016/17 to 2021/22**

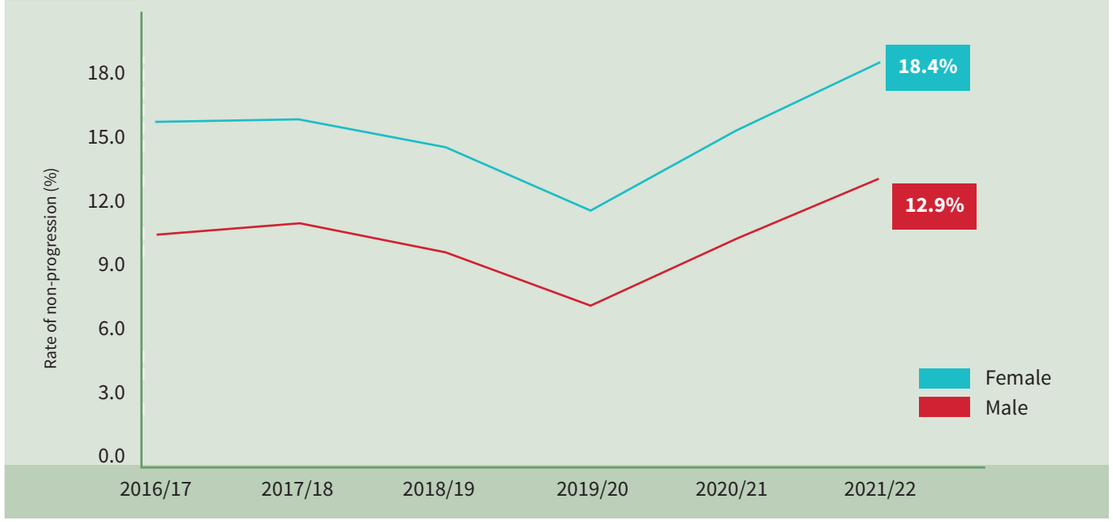


**Other gender responses not displayed due to scaling*

Trends in the Non-Progression Rates by Gender

Females had a lower rate of non-progression then males in each year (Figure 3.2), and the difference was relatively stable over the period, with males approximately 50% higher. Both females and males exhibited the well-established pattern of a decline in the first Covid-19 year and then a subsequent large increase. Among those who reported their gender as non-binary or *prefer not to say*, sufficient data to conduct meaningful analysis has been available for this group since 2020/21. The rate of non-progression for this group was 16.9% in 2020/21 and declined slightly to 16.1% in 2021/22, in contrast to the broader trend of year-on-year increase in this period.

Figure 3.2: **Non-progression rate by gender, 2016/17 to 2021/22**

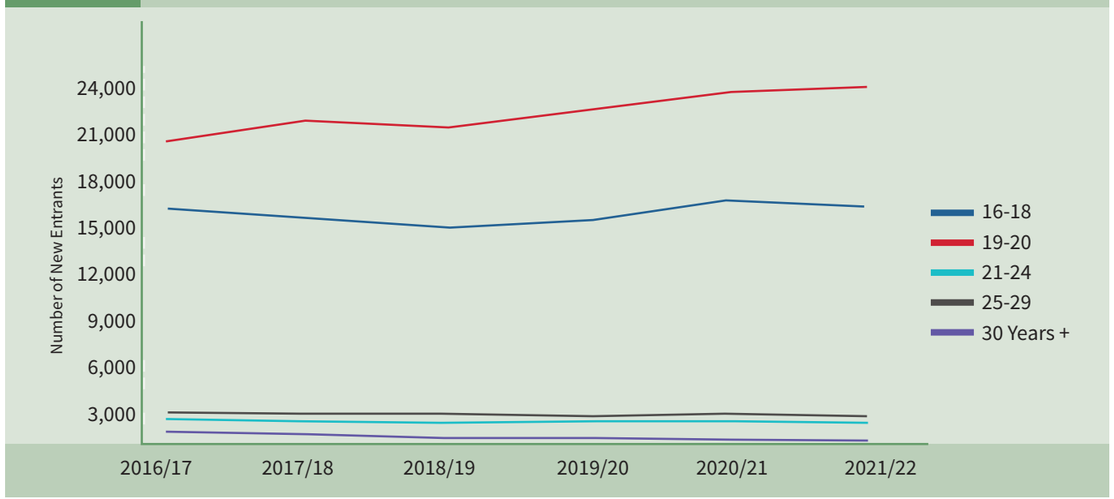


3.2.2 *Age Group*

Trends in the Number of New Entrants by Age Group

Figure 3.3 shows the trend of New Entrants by age group. The number of students aged 19 to 20 years increased in the period by more than 3,400. The number in the group 16 to 18 years saw a slight increase (less than 100 students), while those in the three older age categories all declined in the period. Students aged 19 to 20 years represented 53.1% of all New Entrants in 2021/22 (48.2% in 2016/17).

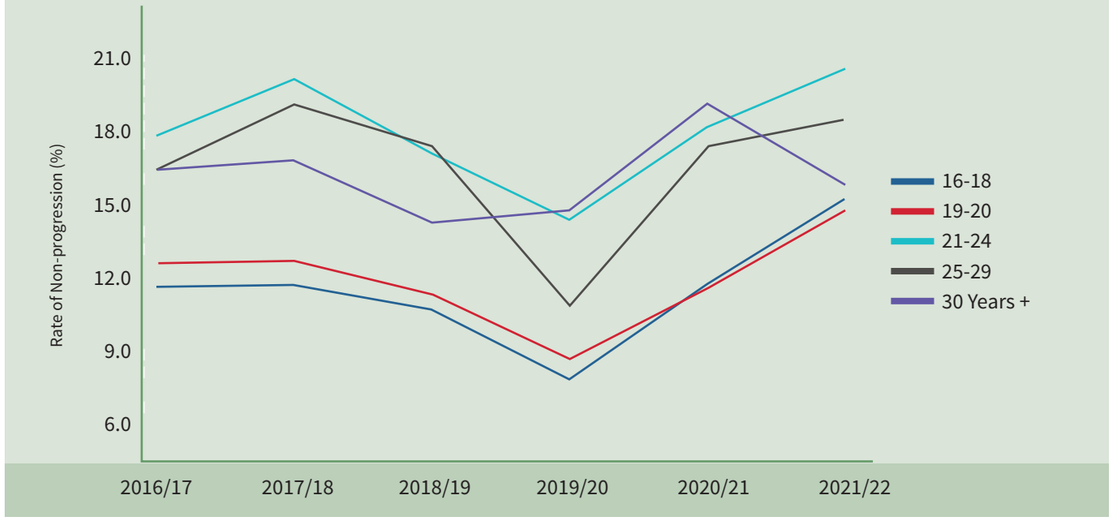
Figure 3.3: **Number of New Entrants by age group, 2016/17 to 2021/22**



Trends in the Non-Progression Rates by Age Group

Examining non-progression among age groups (figure 3.4), there is a broadly similar pattern among them, with the Covid-19 year decline and then subsequent increase. The exception to this is those aged 30 years and older; these students did not have a decline in 2019/20 compared to the previous year, and their rate of non-progression declined in the latest year. Those aged 16 to 18 years had the largest post-Covid year increase (93.3%), followed by those aged 25–29-years (70.2%). 19–20-year-olds had the lowest non-progression rate in 2021/22, whereas in previous years, this had been the 16–18-year-olds.

Figure 3.4: **Non-progression rate by age group, 2016/17 to 2021/22**



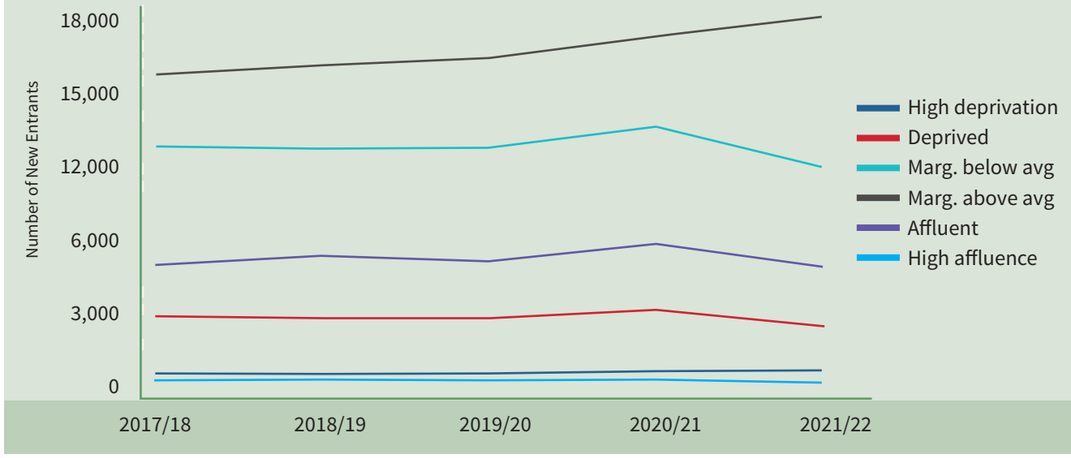
3.2.3 *Deprivation Index Score Group*

Trends in the Number of New Entrants by Deprivation Index Score Group

Figure 3.5 shows the number of New Entrants by Deprivation Index score group for the period 2017/18 to 2021/22[2]. The overall growth in New Entrants derives mainly from the marginally above average group. Students in the two highest deprivation groups accounted for 9.6% of all New Entrants with a Deprivation Index score in the years 2017/18, 10.1% in 2020/21 and 8.5% in the most recent year, 2021/22.

2 No Deprivation Index Score data was collected in 2016/17.

Figure 3.5: **Number of New Entrants by DIS group 2017/18 to 2021/22**

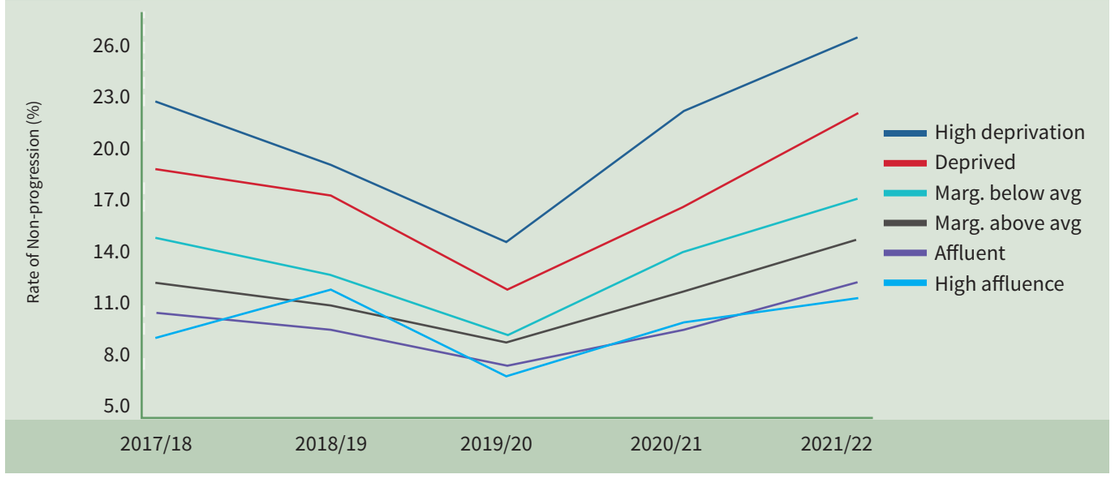


**Those without a deprivation index score not reported above*

Trends in the Non-Progression Rates by Deprivation Index Score Group

Among the Deprivation Index score groups, there was a wide disparity in non-progression outcomes, while the trend over time was broadly similar (figure 3.6). The high deprivation group had the highest rate of non-progression in each year, and the largest gap to other groups occurred in the 2020/21 year. For each subsequent decline in deprivation category, there is a relatively lower rate of non-progression in each year, except the high affluence group. All groups show a "Covid year" non-progression decline in 2019/20.

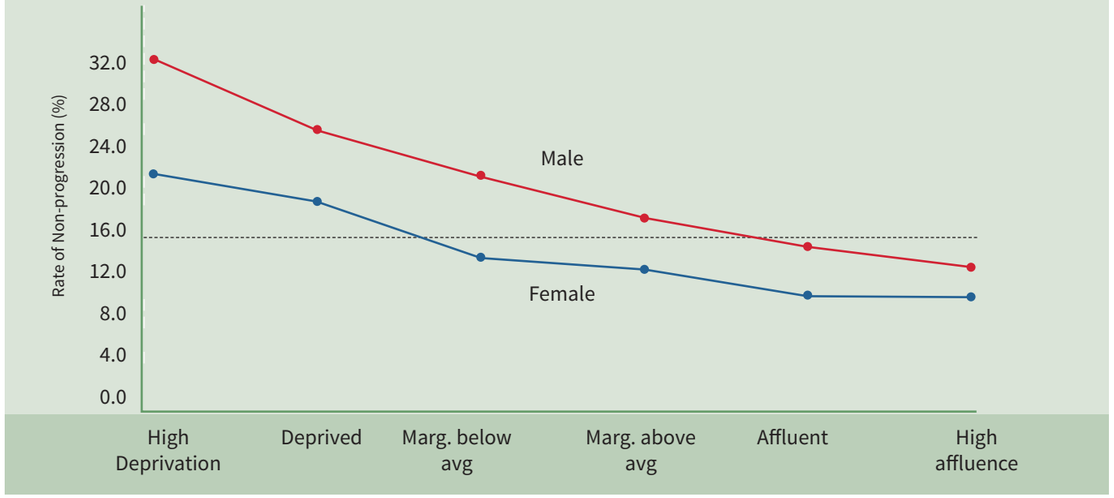
Figure 3.6: **Non-progression rate by DIS group (deprivation index score) 2017/18 to 2021/22**



Non-Progression Rates by Deprivation Index Score and by Gender, 2021/22

The largest difference in non-progression rates between males and females was among those from the highest deprivation areas, with males almost ten percentage points higher (figure 3.7). The difference in rate narrows as the level of affluence increases, and among those from high affluence areas, there was less than 3 percentage points difference in 2021/22.

Figure 3.7: **Non-progression rate by Deprivation Index group, stratified by male & female gender 2021/22 only**



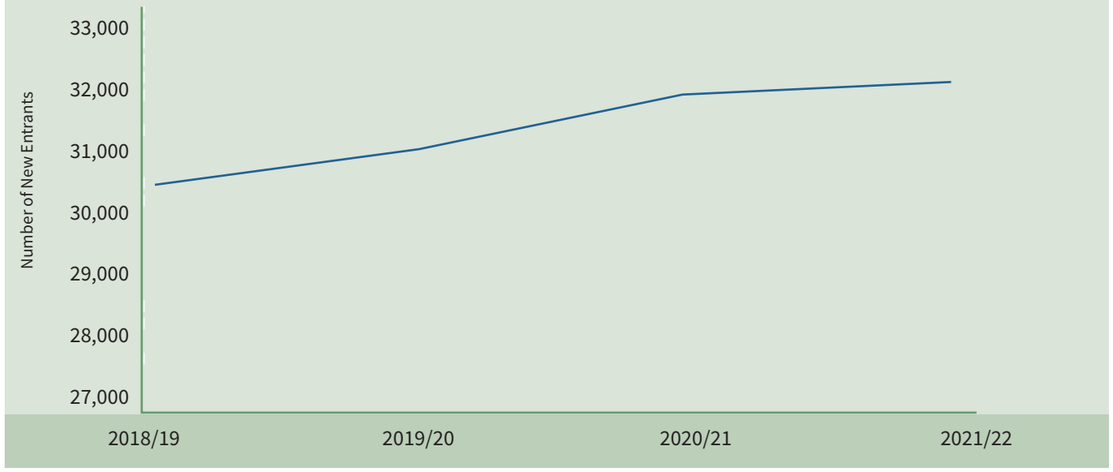
*Those without a deprivation index score not reported above
*Frequencies for other gender category too small and not reported

3.2.4 *Entry Basis*

Trends in the Number of New Entrants by Entry Basis

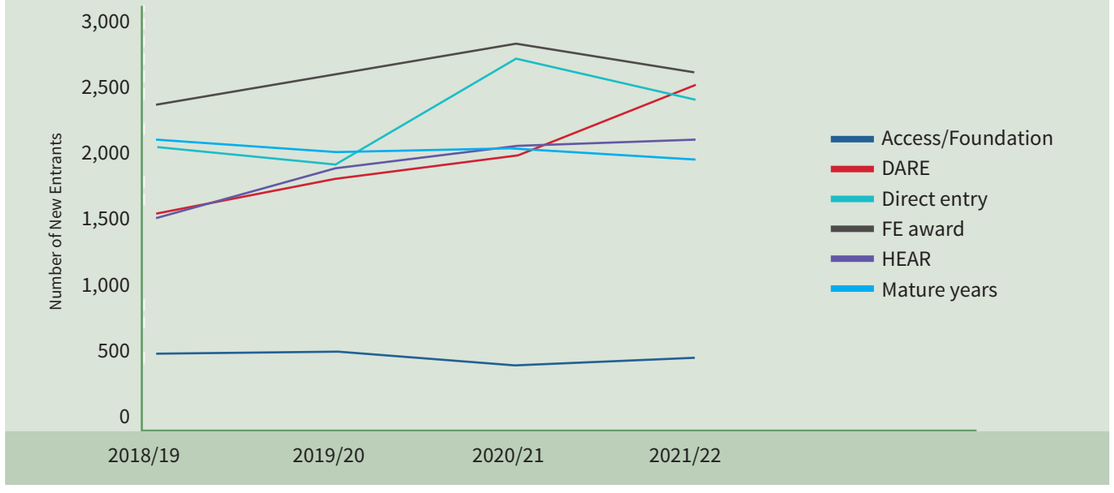
For a student's entry basis to Higher Education, data is available since 2018/19. Most students enter through Leaving Certificate, and this number has grown from 30,465 in 2018/19 to 32,120 in 2021/22 (figures 3.8a). The number of students entering through both the HEAR and DARE programme has increased over the four years (by 63.2% and 39.1% respectively), while both Mature Year and Access / Foundation has seen a decline over the period (-7.5% and -6.7% respectively) (figure 3.8b). Note that there are students with missing data for entry basis and these have been excluded from these figures.

Figure 3.8a: **Number of New Entrants by Leaving Certificate entry basis, 2018/19 to 2021/22**



*Those with missing entry basis data not displayed

Figure 3.8b: **Number of New Entrants by entry basis (excluding Leaving Cert.), 2018/19 to 2021/22**

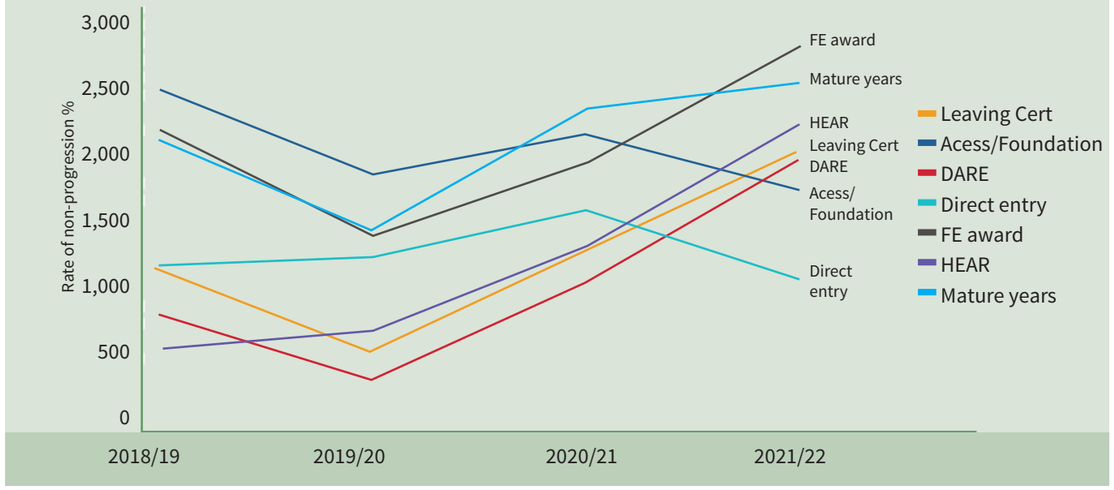


*Those with missing entry basis data not displayed

Trends in the Non-Progression Rates by Entry Basis

Figure 3.9 shows the trend in rate of non-progression by entry basis. HEAR and DARE basis had the lowest rate in 2018/19, but that was no longer the case by 2021/22. In the case of HEAR, the rate of non-progression increased in 2019/20, against the general trend for that year. The most populous entry basis, Leaving Certificate, has followed the general non-progression trend: a dip in 2019/20 followed by a steep increase in the two subsequent years.

Figure 3.9: **Non-progression rate by entry basis 2018/19 to 2021/22**

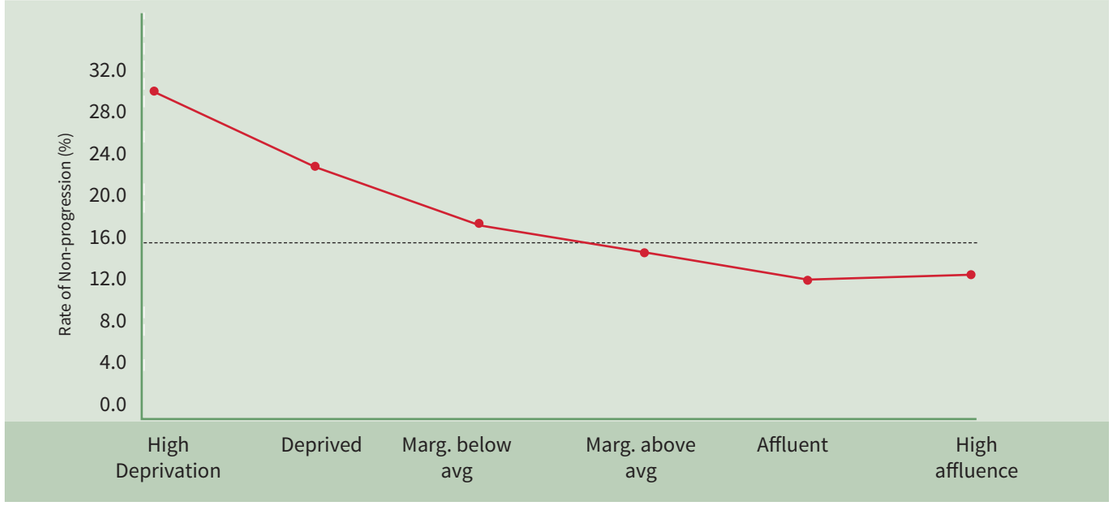


*Those with missing entry basis data not displayed

Non-Progression Rate by Entry Basis and Deprivation Index Score Group, 2021/22

Figure 3.10 shows the rate of non-progression by Deprivation Index group for those whose entry basis was through Leaving Certificate points (2021/2022 year). Almost three in ten of the highest deprivation group did not progress, while among those from affluent areas (the lowest rate), 11.8% did not progress.

Figure 3.10: **Non-progression rate by Deprivation Index group, Leaving Certificate Basis of Entry only (2021/22)**



**Those without a deprivation index score not reported above*

3.2.5 *Results of the Multivariate Analysis 2021/22*

Males were more likely than females not to progress (table 3.4). However, as more factors are controlled for, this difference weakens while remaining statistically significant. When adjusting only for sociodemographic factors, males had a 54% higher odds of non-progression than females. When we adjust for higher education factors, this reduced to 32% higher odds, suggesting that there are systematic differences between males and females in their choices of institution and field of study. In the final model, adjusting for all factors, males had a 20% higher odds of non-progression than females. Among the non-binary or *prefer not to say* gender group, differences with females increases as more factors are adjusted for, and in the final model, they had a 52% higher odds of not progressing.

For age groups, when all factors are adjusted for, age group is not a statistically significant factor in the likelihood of non-progression, although for the unadjusted model, such differences were present. Adjusting for Higher Education factors (institution, field of study and NFQ level) explains a substantial amount of the differences in non-progression odds among different age groups.

Compared to the reference group (affluent), New Entrants from the two higher deprivation areas were more likely not to progress after adjusting for all factors. For the other DIS groups, differences in the likelihood of non-progression were no longer significant compared to the affluent group within the full model, except among those with no DIS information (mainly internationally domiciled students). Differences in Higher Education factors explained a substantial proportion of the higher non-progression outcomes among higher deprivation groups.

Table 3.4: Results of the Multivariate Analysis 2021/22, Socio-Demographic Factors

	Socio-demographic only (M1)		HE factors (M2)		Leaving Cert (M3)		School factors (M4)	
	Odds ratio	P value	Odds ratio	P value	Odds ratio	P value	Odds ratio	P value
Gender (Ref: Female)								
Male	1.54	***	1.32	***	1.25	***	1.20	***
Other	1.36	*	1.57	***	1.55	**	1.52	**
Age category (Ref: 19–20)								
16–18	1.04		1.02		1.00		1.00	
21–24	1.44	***	1.13	*	1.00		1.01	
25–29	1.36	**	1.10		1.02		1.08	
30 Years +	1.20		0.92		0.86		0.94	
DIS (Ref: Affluent)								
High deprivation	2.55	***	1.83	***	1.53	***	1.49	***
Deprived	2.02	***	1.49	***	1.31	***	1.29	***
Marginally Below average	1.48	***	1.17	**	1.08		1.09	
Marginally above average	1.24	***	1.09		1.05		1.06	
High affluence	0.92		0.87		0.82		0.81	
No DIS	1.25	***	1.21	**	1.09		1.14	*

3.2.6 *Summary of Findings on Socio-Demographic Factors*

The increase in the number of New Entrants in the period is mostly drawn from female students, those aged 19 to 20 years, those whose deprivation index scores were around the mean and those whose entry basis to Higher Education was through Leaving Certificate points.

Males had a higher rate of non-progression, consistently 50% above that of females throughout the period, and males from higher deprivation areas tended to have non-progression outcomes that were relatively worse compared to females from those areas. Multivariate analysis showed that a substantial portion of the difference in the odds of non-progression between males and females was attributable to Higher Education factors, while Leaving Certificate points was also an influential mediator of this relationship between gender and likelihood of non-progression.

Older age groups tended to have higher rates of non-progression in the observed period, but an important exception to this was those aged 30 years and older, whose non-progression rate declined in the most recent year, going against the general trend. For the 2021/22 year, significant differences in the likelihood of non-progression were no longer present in the fully adjusted model.

In each year monitored there was a linear relationship between deprivation index group and the rate of non-progression; as the deprivation level from which students came from increased, the rate increased. When modelled to adjust for the different clusters of factors, only the two highest deprivation groups had a significant difference in the odds of non-progression compared to the affluent group.

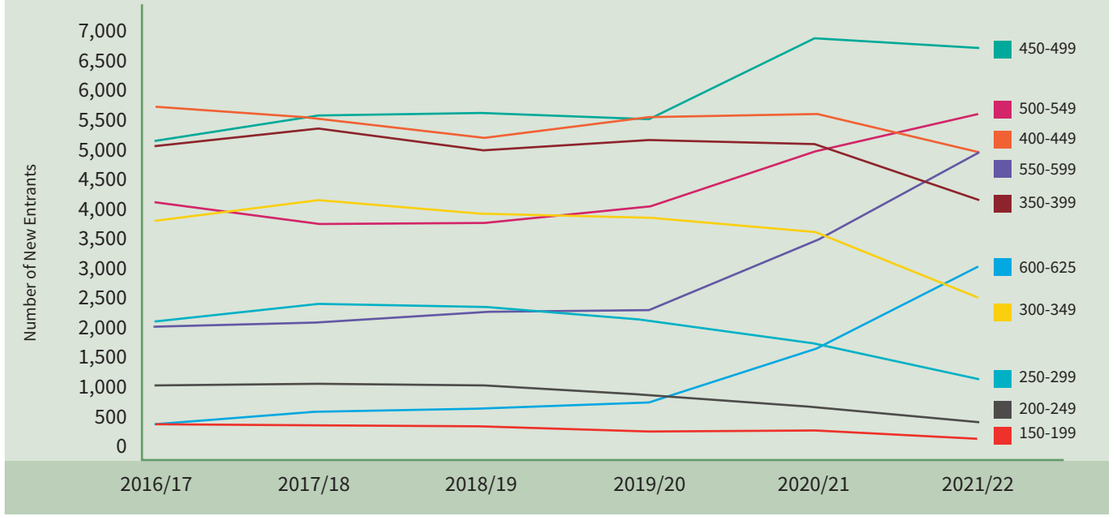
3.3 Leaving Certificate Attainment

3.3.1 *Leaving Certificate Points Group*

Trends in the Number of New Entrants by Leaving Certificate Points Group

Figure 4.1 shows the number of New Entrants by Leaving Certificate points group. The number of New Entrants from the four highest points groups have increased substantially since the start of the observed period and in particular since 2019/20: the group between 450–499 points, 500–549 points, 550–599 points and those who received 600–625 points. All other groups (i.e. less than 450 points) have declined in the number of New Entrants over the period. As a proportion of New Entrants for whom Leaving Certificate points information was available, these four highest points groups accounted for 39.2% in 2016/17, 41.4% in 2019/20, 50.1% in 2020/21 and 60.6% in 2021/22. New Entrants with 550 points and above grew from 3,005 in 2019/20 to 7,950 in 2021/22. In the same period, New Entrants with between 250 and 399 points declined from 11,095 to 7,715.

Figure 4.1: **Number of New Entrants by Leaving Certificate points group 2016/17 to 2021/22**

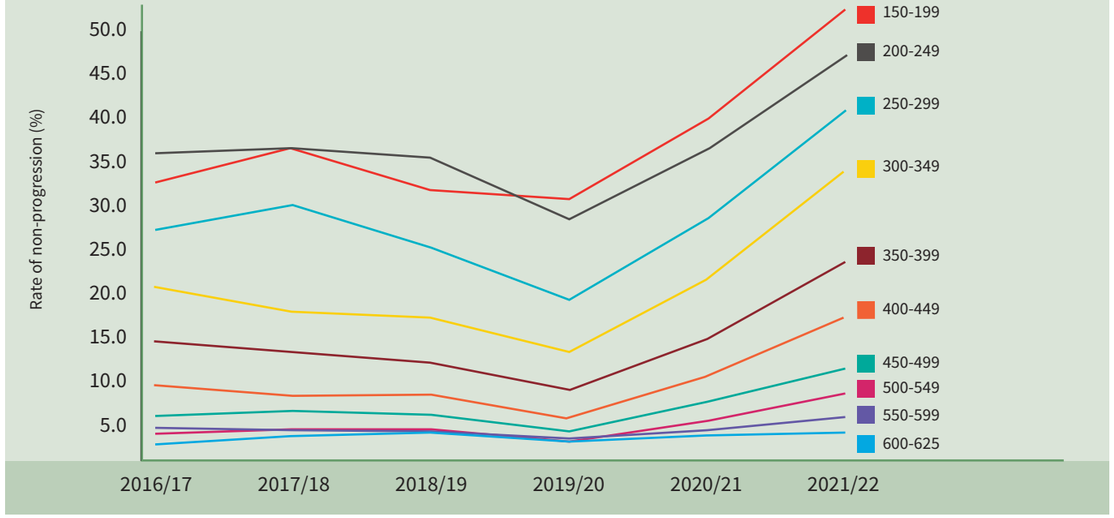


**Those with missing Leaving Cert data not displayed*

Trends in the Non-Progression Rate by Leaving Certificate Points Group

Figure 4.2 shows the non-progression rate for these groups. For each year, there is an ordinally ordered relationship, whereby higher rates of non-progression occur in lower Leaving Certificate points categories (except for 150–199 points group in the earlier years). The post Covid-19 increase in non-progression is present among all groups, with the highest percentage increases occurring among those with 400–449 points (212.5% increase), 450–499 points (182.7%) and 500–549 points (180.9%). Those in the highest points group, 600–625, had the lowest increase since 2019/20 (40.3%). The range between the highest and lowest non-progression rate grew substantially over time and in 2021/22 more than half of those in the lowest points group did not progress to the following year.

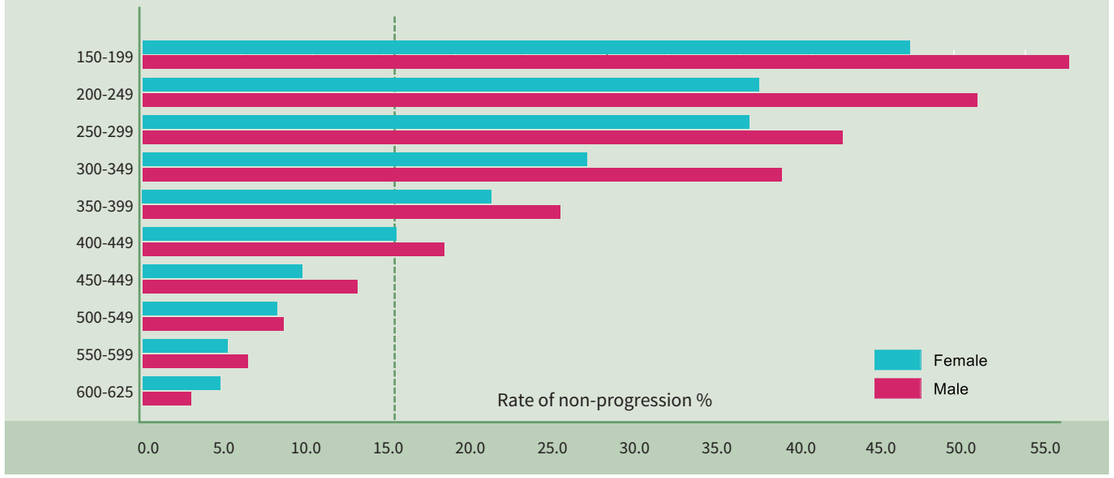
Figure 4.2: **Non-progression rate by Leaving Certificate points group 2016/17 to 2021/22**



Non-Progression Rates by Leaving Certificate Points Group and by Gender, 2021/22

Figure 4.3 shows the non-progression outcomes for each Leaving Certificate points group for 2021/22, stratified by gender. The largest difference was among those receiving 200–249 points (males had a 13.3 percentage points higher rate), followed by the 300–349 points (11.9 percentage points) and 150–199 points (9.7 percentage points) groups. Among the highest points group, males had a lower non-progression rate than females (1.8 percentage point difference).

Figure 4.3: **Non-progression rate by Leaving Cert & by gender, 2021/22 only**



**Those with missing Leaving Cert data not reported*

3.3.2 *Results of the Multivariate Analysis 2021/22*

The linear-like relationship between the Leaving Certificate points group and non-progression for all years that was observed in figure 4.2 was also apparent within the logistic regression modelling for 2021/22 (table 3.5). The addition of factors to the model reduces the difference in the likelihood of non-progression compared to those in the reference group (450–499 points), but the effect remained strong; among those with lower points, they were more likely not to progress and among those with higher points they were less likely not to progress.

In the unadjusted model, those in the 300–349 points group were 301% more likely not to progress and those in the 400–449 points group 62% more likely not to progress. Those in the 550–599 group were 53% less likely and those in the 600–625 points group 67% less likely not to progress compared to the reference group.

Within the fully adjusted model, those in the 300–349 points group were 221% more likely not to progress and those in the 400–449 group were 46% more likely not to progress. Those in the 550–599 group were 46% less likely and those in the 600–625 points group were 63% less likely not to progress compared to the reference group. Leaving Certificate points had the strongest influence on the outcome of non-progression of all the factors considered within the model.

In each iteration of modelling, those with no Leaving Certificate data were more likely not to progress compared to the reference group (mostly entrants from other entry bases).

Table 3.5: Results of the Multivariate Analysis 2021/22, Leaving Certificate Attainment

(Ref: 450-499)	Leaving Certificate (M1)		HE factors (M2)		Socio-demographic (M3)		School factors (M4)	
	Odds ratio	P value	Odds ratio	P value	Odds ratio	P value	Odds ratio	P value
150–199	8.59	***	5.87	***	5.91	***	5.76	***
200–249	7.02	***	4.45	***	4.37	***	4.38	***
250–299	5.42	***	3.81	***	3.73	***	3.72	***
300–349	4.01	***	3.22	***	3.20	***	3.21	***
350–399	2.42	***	2.10	***	2.09	***	2.10	***
400–449	1.62	***	1.46	***	1.46	***	1.46	***
500–549	0.72	***	0.78	***	0.79	***	0.79	***
550–599	0.47	***	0.54	***	0.54	***	0.54	***
600–625	0.33	***	0.38	***	0.37	***	0.37	***
Unknown/Other	1.63	***	1.51	***	1.81	***	1.82	***

3.3.3 *Summary of Findings for Leaving Certificate Attainment*

The number of New Entrants from higher points groups has grown over the period, and New Entrants from lower points groups declined.

The relationship between Leaving Certificate points grouping and non-progression was consistent over time and linear-like in each year considered: those with higher points tended to have lower rates of non-progression. In 2021/22, this was also the case for both males and females at every points award level, although the range of outcomes is wider for males than females. The results of the multivariate logistic regression suggest that the likelihood of non-progression continued to follow a similar linear pattern, and that Leaving Certificate outcomes were strongly associated with the likelihood of non-progression. Compared to the reference group of 450–499 points, those with points below 250 were more than seven times more likely not to progress in the unadjusted model. Higher Education factors explain some of this; after adjusting for these, the group with below 250 points were 4.5 times more likely to not progress. A weakening of the relationship, but still very influential in the outcome of non-progression. Those with higher points had much lower odds of non-progression, both in the unadjusted and fully adjusted models.

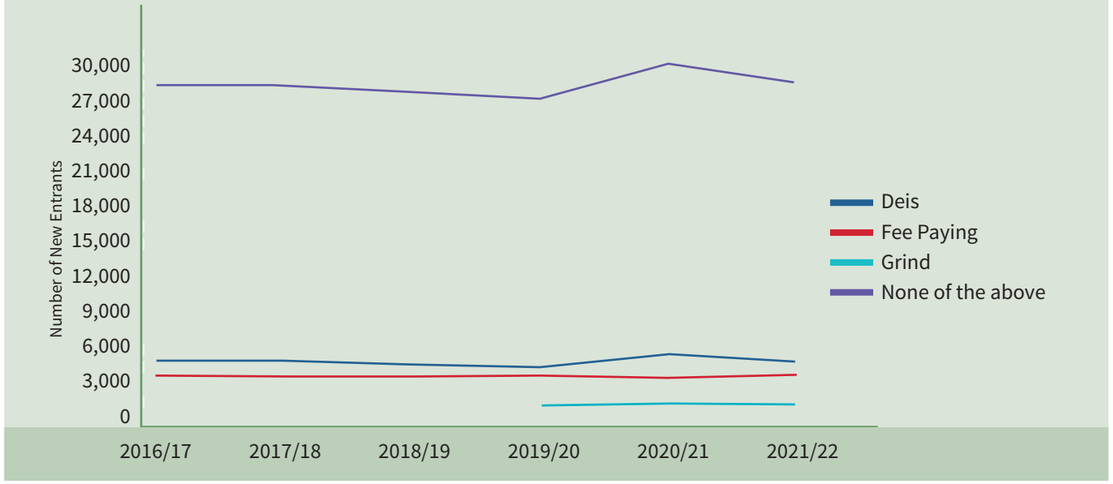
3.4 Secondary School Factors

3.4.1 *Secondary School Type*

Trends in the Number of New Entrants by Secondary School Type

None of the above, which consists of schools which are neither DEIS fee-paying or Grind schools, was the dominant school type, and although there was some yearly variation, had a similar number of students at the end of the period (28,520) as at the start (28,255) (figure 5.3). Those from DEIS schools were 4,695 in 2016/17 and 4,725 in 2021/22, but as the total number of New Entrants grew in the period the proportion from DEIS schools dropped. Data was available for New Entrants from Grind schools since 2019/20, and approximately 1,000 New Entrants in each of the subsequent years came from this school type.

Figure 5.1: **Number of New Entrants by school type, 2016/17 to 2021/22**

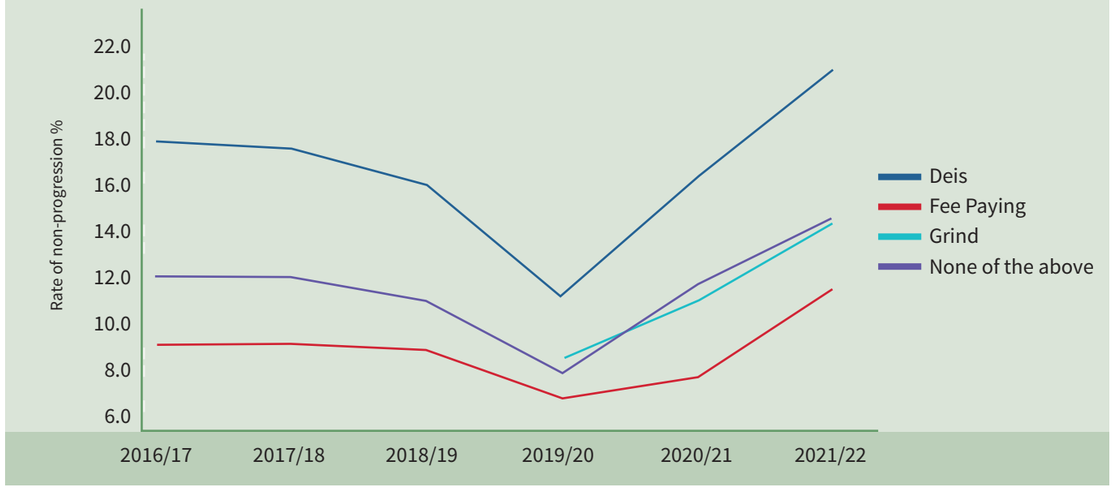


**Those with no school type data not shown*

Trends in the Non-Progression Rates by Secondary School Type

Those attending DEIS schools had the highest rate of non-progression in each year while those in fee paying schools had the lowest (figure 5.2). All school types follow a broadly similar pattern in the rate of non-progression that has been observed elsewhere, with a Covid-year dip followed by a sharp incline. Those attending DEIS schools had the biggest increase in non-progression since 2019/20 (86.2%), followed by the most populous group, none of the above (83.5%). Fee paying schools consistently had the lowest non-progression rate.

Figure 5.2: **Non-progression rate by school type, 2016/17 to 2021/22**

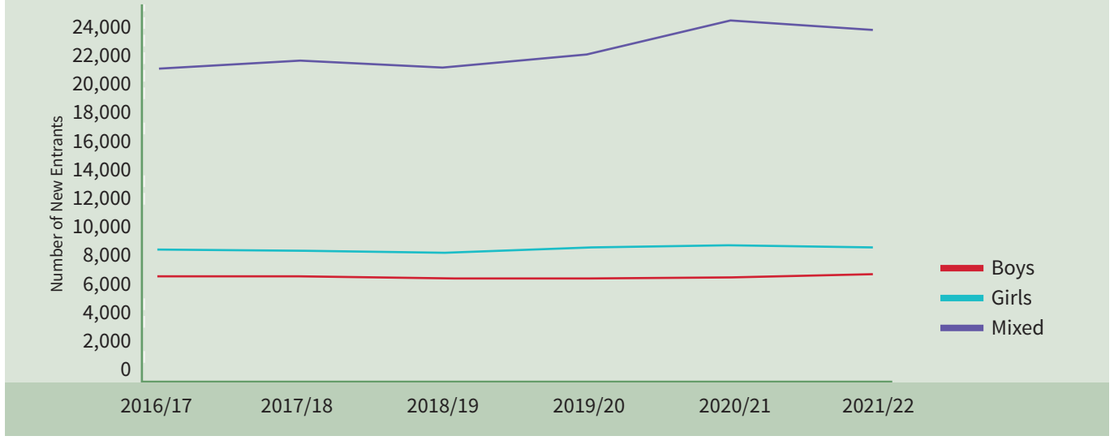


3.4.2 *Secondary School Gender*

Trend in the Number of New Entrants by Secondary School Gender

The majority of New Entrants to Higher Education went to mixed gender schools (figure 5.3). The number from this group has grown from 21,160 in 2016/17 to 23,735 in 2021/22 (the highest year was 2020/21 when the number was 24,415). New Entrants who went to all-boys' and all-girls' schools have grown very slightly (less than 200 for each) in the same period.

Figure 5.3: **Number of New Entrants by school gender, 2016/17 to 2021/22**

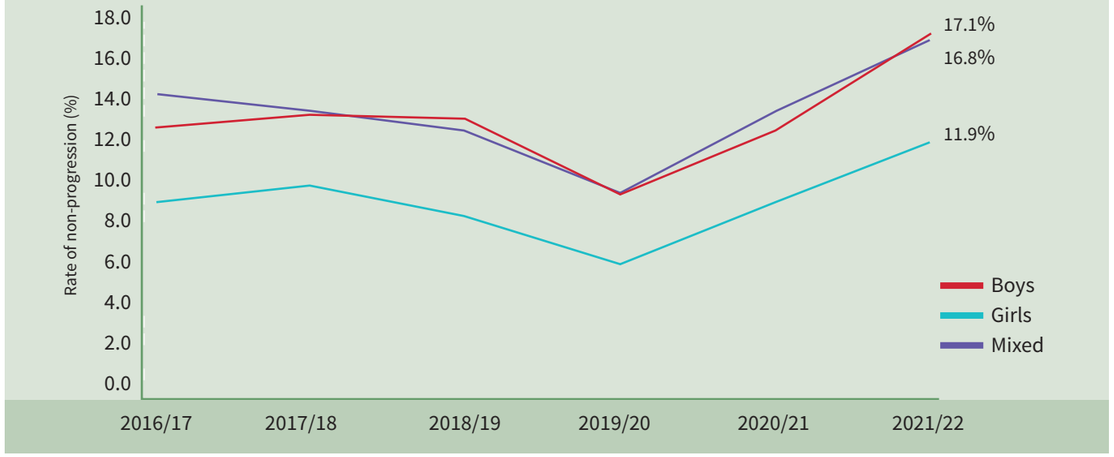


**Those with no school gender data not shown*

Trends in Non-Progression Rates by Secondary School Gender

New Entrants attending all-girls' schools had the lowest rate of non-progression (figure 5.4). For the three categories of school gender the trend is similar: stable in the early part of the period, dipping in 2019/20, followed by a sharp increase. The non-progression rate among those attending all-girls' schools has increased by the largest amount since 2019/20 (97.8%) compared to all-boys' schools (82.3%) and mixed schools (80.0%).

Figure 5.4: **Non-progression rate by school gender, 2016/17 to 2021/22**



*Those with no school gender data not shown

3.4.3 *Results of the Multivariate Analysis 2021/22*

When adjusting only for school factors, those from DEIS and Grind schools were more likely not to progress then those from the standard schools, while those from fee-paying schools were less likely (table 5.1). DEIS school attendees continue to have a higher odds in the fully adjusted model, but it reduces from 48% higher odds to 20% higher odds. The opposite is the case for Grind schools; these students had a 71% higher odds of non-progression before adjustment and 115% higher likelihood after full adjustment.

Those from fee paying schools had a lower likelihood of non-progression compared to standard school students before adjustment, within the full model, they had a higher likelihood, but this was not a statistically significant difference.

New Entrants from all-boy's schools had a 57% higher odds of non-progression than those who attended all-girl's schools when adjusting only for school gender and school type. After adjusting for Higher Education factors and sociodemographic factors, this reduces to a 9% higher odds, suggesting that both Higher Education choices and sociodemographic differences explain a substantial part of in the differing odds of non-progression between all-boy's and all-girl's school students. Mixed school students were significantly more likely not to progress than all-girl's school students when considering only school factors, but were not significantly different in the fully adjusted model.

Table 5.1: Hierarchical logistic regression for non-progression 2021/22 (School factors)

	School factors (M1)		HE factors (M2)		Socio-demographic (M3)		Leaving Certificate (M4)	
	Odds ratio	P value	Odds ratio	P value	Odds ratio	P value	Odds ratio	P value
School Type (Ref: Non-DEIS, non-fee-paying, non-grind)								
DEIS	1.48	***	1.30	***	1.22	***	1.20	***
Fee paying	0.74	***	0.90		0.93		1.04	
Grind	1.71	***	1.91	***	1.99	***	2.15	***
Unknown	1.81	***	1.36	***	1.35	***	1.33	***
School gender (Ref: All girls' schools)								
Boys	1.57	***	1.35	***	1.09		1.13	*
Mixed	1.40	***	1.21	***	1.08		1.07	
Unknown	0.66	***	0.79	**	0.73	***	0.73	***

*** p<.001, ** p<.01, * p<.05

3.4.4 *Summary of Findings on Secondary School Factors*

Those who attended all-girls' schools had a substantially lower rate of non-progression in each year observed, but the overall pattern of decline in 2019/20 and subsequent large increase occurred among all school gender ethos's. Fee-paying schools had the lowest non-progression by school type, and DEIS-schools, which was consistently the highest, saw the largest increase in rate over the last two years.

Within the fully adjusted 2021/22 multivariate model, Grind school students had more than double the odds of non-progression compared to standard schools, and DEIS school students had a 20% higher odds.

Differences in the likelihood of non-progression between all-girl's and all-boy's school students were substantially explained by Higher Education and sociodemographic differences, however in the final model all-boy's schools were still marginally more likely not to progress.

Methodology and Data Definitions

Methodology

Data Source

Data in this report was extracted from the HEA's Student Record System (SRS). SRS is the database of student and graduate information collected from HEA-funded institutions annually. Records are organised at the level of individual student data.

Treatment of missing data

For each year, all observations are included in both the descriptive and inferential analysis. For a number of the variables, including Leaving Certificate points school factors and entry basis, there are a portion of the observations from when we have missing data. In some cases, the frequency of missing data is substantial. Rather than lose this data in the analysis through a method much as list-wise deletion, these have been included in the multivariate analysis by being recoded as a single group of "unknown". In treating the missing data in this way, it invites the risk of classifying observations in groups who may in fact be heterogeneous, and introducing bias into the modelling of the dependent variable. However, in most cases there is a known source issue of the missing data. For example, missing Leaving Certificate points data mainly relates to students whose entry basis to Higher Education is other than through Leaving Certificate.

Statistical Software

Statistical analysis was conducted using Stata 18 (Statacorp, Tx.). Descriptive statistical analysis is provided for both univariate and bivariate analysis, and significance testing for differences between groups is conducted through Chi-squared test. For multivariate analysis, binary logistic regression was employed to examine the relationship between the explanatory variable and each of the three outcome variables and including the background variables as co-variates. Binary logistic regression results are reported in odds ratios.

Data Definitions

Non-progression

New Entrants at higher education institutions (HEIs) in each academic year were assessed as non-progressed if they do not re-enrol at the same institution in the following academic year.

New Entrants

Full-time undergraduate students entering Higher Education for the first time are classified as New Entrants.

Deprivation Index Score (DIS)

The Pobal HP Deprivation Index measures the relative affluence or deprivation of the geographical area of the students' family home, based on classification of individuals within Small Areas (on average, 80–100 households). Ten key indicators from data collected in the National Census are included in the assessment of this measure (including unemployment rates, education levels and participation rates with each Small Area). Deprivation Index scores are normalised at a national level so the mean is zero and standard deviation is ten at the point of initial calculation. Within this study, scores are categorised into 6 ordinal groups, from high deprivation to high affluence.

Institutions

All the HEA-funded institutions are included. It should be noted that some institutions who originally reported as Institutions of Technology have subsequently amalgamated as Technological Universities, and these institutions are reported as their amalgamated entities. For example, Carlow Institute of Technology and Waterford Institute of Technology had previously reported their student data separately, but is reported here as the single amalgamated institution, South East Technological University (SETU).

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