A STUDY OF

NON-COMPLETION IN

INSTITUTE OF TECHNOLOGY COURSES

PART ONE

QUANTITATIVE ASPECTS

**Rita Flanagan, Mark Morgan,
and Thomas Kellaghan**

CONTENTS

Preface

This report by the Educational Research Centre, is concerned with completion/non-completion rates in Institutes of Technology. The research was commissioned by the Council of Directors of the Institutes.

The Educational Research Centre wishes to acknowledge the contribution of the steering committee which advised on the planning of study. Particular thanks are due to the staff in the following eleven Institutes: Athlone, Carlow, Cork, Dundalk, Galway-Mayo, Letterkenny, Limerick, Sligo, Tallaght, Tralee, and Waterford who painstakingly supplied the information that forms the basis of the report.

Summary

This study focused on the completion rates of students entering eleven Institutes of Technology in 1995 and who were first-time entrants to higher education. Students enrolled in National Certificate, *ab initio* National Diploma, and *ab initio* Degree programmes.

Of the 11,175 students who began their courses in 1995, just over a half (52.07%) graduated on time; a small number graduated late or were still in attendance in 1998-99 (5.33%); and just over two-fifths (42.61%) did not complete their courses. While nearly three-fifths of females graduated on time, less than half of males did. Conversely, a greater percentage of males (46.78%) than of females (36.89%) failed to complete their courses. There were very substantial gender differences across ITs.

Differences in completion between fields of study were considerable. The highest rate of completion was in Humanities, in which nearly two-thirds of students graduated on time and one-third did not finish. The next highest rate was in Business Studies, in which nearly three-fifths graduated on time and just over one-third did not complete their studies. Just over half the students embarking on Science courses graduated on time, and nearly two-fifths did not complete their studies. Completion rates were low in both Engineering and Computing. Just over two-fifths of students who began courses in these areas graduated on time, and half did not complete their courses at all.

The broad picture that emerges when completion rates for fields of study are examined tends to be modified when we consider completion rates for individual Institutes, for males and females, and for students studying for different qualifications. Not only did Institutes differ in overall completion rates, but the size of the differences depended on the field of study. The extent of gender differences also depended on field of study and the particular Institute being attended. The completion rate for students taking degree courses was somewhat higher than for students taking the National Certificate or Diploma courses.

While it was not possible in the study to track students in all years of their studies, information was sought on students who did not progress from first to second year (34.8% of those who entered ITs in 1995). The vast majority of these students fell into one of two categories, both of which involved withdrawing from the Institute. Over two-fifths had failed their examinations and withdrew, while over one-third withdrew before sitting first year examinations. Only one-seventh of the students who did not progress from first to second year were repeating the course, having failed the examinations.

Students who repeated their courses did not fare very well. Almost three-fifths did not complete their courses, and just under one-third graduated.

Information is provided on students who progressed to the final year of their studies on time. Of the 7002 students who reached the final year of their studies, over four-fifths graduated on time. However, more than 12% of students who had reached their final year did not complete their studies.

Results indicate that non-completion of courses by students is a matter of serious concern for Institutes of Technology. They also indicate that it is a complex phenomenon, in which Institute, field of study, entry requirements, level of award, and gender all are implicated.

1

INTRODUCTION

_____

According to the 1992 Regional Technical College Act, the main function of such colleges was to 'provide vocational and technical education and training for the economic, technological, scientific, commercial, industrial, social and cultural development of the state with particular reference to the region served by the college.' This function is illustrated by the areas of study offered (McIver Consulting, 1996). In 1995, Engineering programmes (which have been developed in line with industry needs) accounted for over 30% of students. Approximately 13% of students were involved in Science programmes, with Applied Chemistry and Applied Biology being available in most of the colleges. The field of Business Studies has grown dramatically in the last decade, and in 1995 accounted for 36% of all students entering ITs. Some of the programmes in Business Studies lead to professional accountancy examinations, while others specialise in areas such as catering, leisure, accommodation and hospitality. Computers and Information Technology courses accounted for 10% of students in 1995, while a range of other courses, including Social Studies, Legal Studies, and Humanities programmes, accounted for the remaining students.

In the year which was targeted in the present study, Institutes of Technology (ITs) (then called Regional Technical Colleges) offered over 14,000 places to students. This exceeded the number in the University sector by 1,000 (McIver Consulting, 1996)[1]. Eleven Institutes are involved in our study: Athlone, Carlow, Cork, Dundalk, Galway-Mayo, Letterkenny, Limerick, Sligo, Tallaght, Tralee and Waterford. They provide a range of programmes ranging from 2-year certificates to postgraduate degrees. From the perspective of the present work, the focus is on the following:

1. National Certificate programmes, which are broad foundation courses designed to prepare students either for employment or further study.

---

[1] The study by McIver Consulting was commissioned by the RTCs which provided the relevant statistics for individual colleges.

2. National Diploma programmes which are taken by students who have completed National Certificate programmes to a satisfactory level or as *ab initio* programmes without having to complete an earlier certificate programme. Only the *ab initio* Diploma programmes are relevant to our study.

3. Degree programmes which can be taken in an add-on mode by students who have reached a high standard in the earlier certificate and diploma programmes or through the *ab initio* pathway. Only students taking the latter are relevant to our study.

The study described in this report was carried out by the Educational Research Centre at the request of the Council of Directors of Institutes of Technology. Following discussion between the Centre and the Institutes, work began on the collection of data in April 1999.

The study is concerned with the completion rates for students who entered eleven Institutes of Technology in 1995 and who were first-time entrants to higher education. Data were obtained for each IT on the number progressing to final year on time, the number graduating on time, the number graduating late, the number who were still attending in 1998-99, and the number who did not complete the course they had embarked on in 1995. Chapter 2 of the report presents some relevant research literature on completion/non-completion in third-level and further education. Chapter 3 provides a description of the methodology of the study. Overall rates of completion and non-completion for each Institute are presented in Chapter 4. In Chapter 5 completion/non-completion rates by field of study, gender, and level of qualification (certificate, diploma, degree) are described. How completion/non-completion is related to the entry requirements of courses is outlined in Chapter 6. In chapter 7 the progression of students who repeat first year is described while in Chapter 8, the destination of students not progressing into second year is set out. Main conclusions and recommendations are presented in chapter 9.

RESEARCH ON NON-COMPLETION
IN HIGHER EDUCATION

_____

There is little research on the functioning of Institutes of Technology in Ireland. Further, research on non-completion in third-level education carried out in other countries that might be relevant to the situation in Irish ITs is also limited. In this chapter, we review the available research, most of which was carried out in Britain or in the United States. In considering the findings, it should be kept in mind that differences between these countries and Ireland in the structure of third-level education and in the contexts in which it is carried out may limit the relevance of the studies to the Irish situation. With this reservation in mind, the findings of research are considered relating to non-completion of courses in general, non-completion for particular fields of study, and gender differences in non-completion.

Non-Completion of Courses

Studies of non-completion in courses undertaken in higher education can be divided into three broad categories. One set of studies has sought to establish the proportion of students who complete courses in higher and further education on which they had embarked. A second category has examined differences in completion rates between particular kinds of courses/institutions. A third category was concerned with relationships between personal/motivational factors and non-completion. The last category is not relevant to the present work.

Studies that are directly relevant to retention in the IT sector in Ireland are hard to come by. It could be said that two-year colleges in the United States are somewhat similar but this is not strictly the case. For one thing, students entering two-year colleges frequently do so with a view to transferring to traditional Universities, something that occurs quite infrequently in the case of ITs in Ireland. Furthermore, students attending two-year colleges are much more likely than those attending four-year colleges to be living at home, again a difference which is not found in Ireland.

Another point of difference is that American two-year colleges do not normally have conventional degree-length programmes in addition to two-year year courses, while some ITs now have degree courses. With these reservations in mind, it may be worth noting that while in the United States over one quarter of students enrolled in four-year courses leave at the end of the first year, a remarkable 44% of those involved in two-year colleges do so (Chaney & Ferris, 1991; Tinto, 1993).

Tinto's (1993) review of the research on persistence among students in two-year colleges leads to a number of other conclusions. Firstly, it seems that part of the reason for the low rates of completion in these colleges is to be found in the fact that students were likely to be in employment and to have had limited involvement in the college outside their classes. Secondly, there was evidence that academic dismissal (i.e., failing examinations) was a relatively more important reason for departure than was the case in four-year degree courses. Finally, it would seem that while the rate of departure of students in two-year colleges was substantially higher than in four-year institutions, the processes and variables that were important in the departure of individual students were quite similar in both cases.

As in the case of the American studies, studies of non-completion in Britain do little to illuminate the situation in Irish colleges. This is mainly because British students who are similar to those to those in ITs are not confined to one sector but may be found in either the Higher Education or Further Education sectors. Studies by York (1999) and Ozga & Sukhnandan (1997) examined drop-out at a number of higher education institutions, including a 'rapidly expanding former polytechnic, dominated by vocational areas and business studies'. While acknowledging the difficulties of making accurate estimates, the figures suggested a drop-out rate in the region of 4 to 5% per year.

Another study examined retention and achievement rates in Further Education colleges in England (Further Education Funding Council,1999). As in the case of Higher Education, this sector does not correspond strictly to any sector in third-level education in Ireland, since it includes sixth form students as well as students taking vocational qualifications (somewhat akin to post-Leaving Certificate courses in Ireland but of longer duration). The results of the study showed that while there are differences

between courses, the retention rates in Further Education colleges stand at around 80% for most courses. There was a substantially higher retention rate for qualifications that took a shorter time to achieve.

Of immediate relevance to the present work is a study by Healy, Carpenter and Lynch (1999) who examined the pattern of non-completion among first year students in three Institutes of Technology. A survey of students who entered the Institutes as first time entrants to higher education in 1996 showed that 37% did not complete first year. Many of the students (47% of those not completing the year) left at the end of the final term having failed at least part of their examinations. However, quite a number (36%) left earlier in the year before taking any examinations.

Fields of Study and Non-Completion

Tinto's (1993) review examined a variety of student and institutional variables, but paid little attention to fields of study. However, he did consider the importance of the perceptions of students of their courses, especially the extent to which they saw courses as leading to worthwhile and interesting careers. The review also attended to the importance of academic preparedness as a factor in persistence and found skill deficiencies in writing and mathematics to be important factors in failure.

A recent review paid particular attention to the difficulties encountered by American students in Science, Mathematics, Engineering and Technology (SMET) (Springer, Stanne & Stanton, 1999). While the study did not focus specifically on failure, student difficulties have obvious implications for failure. The study suggested that methods of teaching which differed from traditional ones, especially ones involving small group teaching, were likely to be more appropriate for this area of learning.

A study by Moran & Crowley (1978/9) in Ireland, involved a comparison of Science and Humanities students in university. The particular focus of this study was on the relationship between qualifications at entry and degree performance. The main conclusion was that pass standards varied considerably between faculties, even for students with identical entry qualifications. It is interesting that this study drew attention to differences in standards between areas of study rather than inherent differences between the areas.

A study of ITs also investigated fields of study and found that differences in failure and non-completion between fields were not great (Healy et al, 1999). The highest drop-out/failure rate was in Engineering, in which 31% of those who entered failed to progress into second year. The lowest drop-out rate was in the Sciences, where just 20% failed to progress. The failure/drop-out rate in Business (26%), Computing (25%), and the Humanities (27%) were very similar.

Gender Differences in Non-Completion

A considerable body of research has examined gender differences in participation and persistence in higher education. There are some indications in the international literature that females are more likely than males to go to third-level colleges and also to graduate (Tinto, 1993). For example, in a longitudinal study of students completing high school in 1980 in the United States, 72.4% of females went to college, compared to 69.1% of males. Furthermore, about 3.5% more females than males were awarded college degrees (Eagle & Caroll, 1988).

There is also a consensus in British studies about the significance of gender in course completion. For example, a study of three colleges of different types by Ozga & Sukhnandan (1999) found a higher percentage of males among drop-outs. Further, this percentage was an over-representation of males in relation to their total number.

In the study of the three Institutes of Technology a somewhat different picture emerges (Healy et al. 1999). While female students comprised 45% of the total entering first year, 48% of students who left or failed were female. It should be noted that this difference is relatively small and that its findings differ from those of almost all other studies on this topic.

Further study of gender differences in completion/non-completion rates is needed to determine whether males are more likely to drop out in all fields of study or whether females are more (or less) likely to drop out in fields traditionally linked with one gender.

METHOD OF ENQUIRY

_____

In this section a description is provided of the main features of the methodology of the present study. The target group, the tracking instrument, the procedure, and the checks for reliability and validity that were carried out are described.

Target Group

The target group consisted of first-time entrants to higher education in any of the eleven Institutes of Technology in the academic year, 1995-96 who had not withdrawn before the census date (31st October). Repeat students, transferring students, and students who had previously been enrolled in a higher education course in the same or in another institution were excluded. However, mature students, if they were first-time entrants, were included, as were students who had completed Post-Leaving Certificate courses.

The year 1995-96 was selected because that it was recent enough to be relevant to present rates of non-completion and yet allowed for an adequate time for students to graduate even while repeating a year (in National Certificate and Diploma courses only). It was also the academic year in which many of the Institutes had transferred their student records to a computerised system which eased the task of tracking student progress.

Tracking Instrument

The tracking instruments (Appendix A) allow for students entering first year in 1995-96 to be followed throughout their course (National Certificate, National Diploma, Degree) to determine whether they had graduated on time, graduated late, were still attending, or had failed to complete by 1998-99. Data were provided by the Institutes of Technology for individual courses. However, in analyses, courses were combined to

form five fields of study for National Certificate courses, four fields of study for National Diploma courses, and three fields of study for Degree courses (see Chapter 5).

The notion of course is essentially tied to the entrance requirements in the CAO application. In other words, courses are defined in terms of 'course code' in the 1995 CAO handbook. The disadvantage of this is that data will be aggregated in a way that makes it impossible to distinguish between some courses. An obvious example is the 'Science course' in several of the Institutes of Technology, which covers a range of subjects.

An attempt was made to establish the fate of students who did not transfer from first to second year in their particular course. The reason for selecting this transfer point was that available research indicated that it was a particularly critical time since many students who drop out or graduate late display difficulties at this stage. For this reason, each course provided the following options for those not progressing from first to second year: (i) repeated first year (same course), (ii) did not sit first-year examinations and withdrew, (iii) passed first year examinations and withdrew from institution, (iv) failed first year examinations and withdrew from institution, (v) registered at a different course (same institution).

While it would have been valuable to have collected this information on students failing to progress in all years, the demands of such a procedure would have been unduly taxing. However, this is not a major limitation since the majority of students who drop out tend to do so at the end of first year.

Procedure

The data collection followed a series of meetings and consultations (individual and group) between a Steering Committee representing the Institutes of Technology and the Educational Research Centre. During these discussions attention was paid to the aims of the study and the nature of the information being sought (for example, the tracking instrument), the definition of the target group, and the format of the information. Some amendments were made to the initial draft on the basis of these consultations. Afterwards, the Director of each Institute of Technology appointed a

liaison person (frequently an official in the Registrar's office) who had the responsibility of providing the Educational Research Centre with the necessary information.

Consistency of Data

On receipt of the data, two checks were immediately made on the information. The first involved examining completeness. In several cases, this resulted in further communication with the officials of the Institute. Overall, the final progression data received were close to 100% complete for all Institutes. The data on students who failed to transfer from first to second year at the end of the academic year 1995-96 were complete for all Institutes.

The second check involved an examination of the consistency of the data. Particular attention was paid to ensuring that the figures listed for number of students entering second year in 1996/97, repeating first year in 1996/97, and having withdrawn during or at the end of first year (1995/96) summed to the total given for number of first-time entrants who entered each course. Checks were also made to confirm the consistency of the information about students who did not transfer from first to second year.

4

COMPLETION RATES IN INSTITUTES OF TECHNOLOGY

_____

Table 4.1 presents the total number of male and female first-time entrants, the percentage who graduated on time, graduated late, still attending, and who did not complete the course on which they had enrolled in 1995/96. Data are presented for all Institutes of Technology combined and individually for each of the eleven Institutes. Of the 11,175 students who began courses in 1995, just over half (52.07%) graduated on time, 3.63% graduated late, 1.70% were still in attendance (at the time of data collection), and just over two-fifths (42.61%) did not complete their courses. Looking at the overall figures for all ITs combined, it is obvious that there are significant gender differences. While nearly three-fifths (58.74%) of females graduated on time, this was true of less than half of males (47.20%). Conversely, a much greater percentage of males (46.78%) than of females (36.89%) failed to complete their course. The gender difference in the percentages that graduated late was slight, and males (2.28%) were more than twice as likely than females (0.91%) to be still in attendance.

There were considerable differences between individual ITs in the percentages of students who graduated on time. For example, almost three-fifths of students at Waterford and Cork graduated on time, compared to only 37.23% and 38.41% at Dundalk and Letterkenny respectively. In five Institutes (Athlone, Carlow, Galway-Mayo, Limerick, and Tallaght) approximately half of all students graduated on time. In the remaining two Institutes (Limerick and Tralee) there was a slightly higher completion rate of approximately 55%.

Gender differences for graduating on time were significant in the Institutes. In all but two Institutes (Dundalk and Limerick) more females completed their course on time. In three Institutes (Athlone, Cork, and Sligo), significantly more (approximately 18%) females than males graduated on time. Dundalk and Limerick saw slightly more

males than females graduating on time but this gender difference was negligible (less than 2%).

The percentage of students graduating late was very low (3.6%). However, there are differences between the Institutes in this regard: in some, a small percentage graduate late, while in others the number is substantially higher. Galway-Mayo, Tralee, Waterford, Dundalk and Tallaght had between 4 and 6% of students graduating late. In contrast, the corresponding figure for Letterkenny, Limerick, and Sligo is less than 2 percent. The relatively small number of students who graduate late is worthy of further investigation, as are the reasons for differences between the Institutes in this regard.

The percentage of students still attending in 1998-99 is extremely low (the category "still attending" refers to degree students who had progressed to their final year on time and diploma students who were repeating their final year). Nevertheless, there were numbers of students still attending in some Institutes. It should be borne in mind that the proportion of students in this category was determined by the availability of *ab initio* diploma and degree courses in each Institute. The fact that some Institutes offer few, if any, such courses will be reflected in a corresponding low proportion of students still attending. In Letterkenny, Tallaght and Tralee, there was no student in attendance when data were collected. On the other hand, Cork and Waterford had 5.57% and 4.59% of its students still attending courses. A significant gender difference is apparent in this category, especially in Cork, where a much greater percentage of males than females was in attendance.

There were large differences in the number of students not completing their courses. Letterkenny and Dundalk had the highest non-completion rates. Approximately three-fifths (60.55% and 58.16% respectively) of students entering in 1995 did not complete. In fact, the highest percentage of non-completing students were at Letterkenny Institute of Technology: 63.55% of males and 57.35% of females did not complete their courses. These non-completion rates are very high, both in absolute terms and when compared to rates in other Institutes. At the other end of the non-completion scale, two Institutes (Cork and Waterford) fared relatively well, although it should be recognised that the numbers not completing are still high in absolute terms (close to one-third). The remaining seven Institutes could be said to have moderate

levels of non-completion. However, the range among them is quite substantial. On the one hand, in Tralee, Galway-Mayo, and Sligo about two-fifths of students did not complete their courses, while in Athlone, Carlow, Limerick, and Tallaght, the number who do not complete ranged from 44.47 to 47.0%.

In nine Institutes, gender differences in completion rates in favour of females were substantial. For example, in Athlone and Sligo, over half of males did not complete their courses, while this was true of one third of females. In the remaining two Institutes (Dundalk and Limerick), more females than males failed to complete; however, the gender difference was negligible (approximately 2%).

There are no obvious explanations for the relatively poor performance of males in terms of completion rates or for the differences between individual Institutes. The superior performance of females in higher education has been well documented and was referred to in the literature review. Findings from our study are of interest for two reasons. Firstly, the differences are much greater than those found in other studies. Secondly, the differences are in areas of learning that broadly speaking one might not have expected to be associated with superior female performance. It will become clear in later chapters that gender differences are related in a fairly complex way to the extent to which males/females are in a minority in a subject area.

Completion Rates For Students Who Progress To Their Final Year On Time

Table 4.2 presents the completion rates for all students who progressed on time to their final year in the course in which they had initially embarked (for example, progression to second year in the case of National Certificate, third year in the case of National Diploma, and fourth year in the case of a degree).

Overall, it can be seen that of the 7002 students who entered their final year, over four-fifths (83.1%) were successful in graduating on time. A very small percentage (3.3%) graduated late, while only 1% were still attending. What is especially significant, however, is that of the remaining students, a remarkably high percentage (more than 12%) did not complete their studies despite the fact that they had progressed to their final year. A slightly higher percentage of females (86.5%)

Table 4.1   Completion Rates For Students (%), By Gender & Institute of Technology, 1995/96 Cohort

Institute of Technology	1st time entrants			Graduating on time			Graduating late			Still attending course			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	6456	4719	11175	47.20	58.74	52.07	3.75	3.45	3.63	2.28	0.91	1.70	46.78	36.89	42.61
Athlone	487	417	904	43.94	62.83	52.65	2.26	2.64	2.43	0.41	0.48	0.44	53.39	34.05	44.47
Carlow	638	445	1083	43.10	57.75	49.12	4.23	2.70	3.60	0.31	0.22	0.28	52.35	39.33	47.00
Cork	947	598	1545	51.53	69.57	58.51	3.38	3.18	3.30	8.13	1.51	5.57	36.96	25.75	32.62
Dundalk	512	334	846	37.70	36.53	37.23	4.10	4.79	4.37	0.39	0.0	0.24	57.81	58.68	58.16
Galway-Mayo	811	694	1505	45.87	59.08	51.93	6.78	5.04	5.98	0.99	0.29	0.66	46.36	35.59	41.42
Letterkenny	299	279	578	35.12	41.94	38.41	1.34	0.72	1.04	0.0	0.0	0.0	63.55	57.35	60.55
Limerick	573	215	788	52.01	51.16	51.78	1.92	1.40	1.78	1.40	0.47	1.14	44.68	46.98	45.30
Sligo	448	498	946	45.76	64.06	55.39	0.89	1.81	1.37	1.34	1.20	1.27	52.01	32.93	41.97
Tallaght	437	263	700	46.68	55.51	50.00	4.58	3.80	4.29	0.0	0.0	0.0	48.74	40.68	45.71
Tralee	494	392	886	50.61	62.50	55.87	4.25	5.36	4.74	0.0	0.0	0.0	45.14	32.14	39.39
Waterford	810	584	1394	54.69	63.01	58.18	4.44	4.28	4.38	5.19	3.77	4.59	35.68	28.94	32.86

than of males (80.2%) graduated on time if they reached the final year. Conversely, males were slightly more likely to graduate late, to continue with their studies, and to leave without completing their course.

There are substantial differences between Institutes in the completion rates of students who progress to their final year on time. The highest percentage of students graduating on time (91.5%) was found in Limerick, the lowest in Dundalk and Letterkenny (73.8% and 74.2% respectively). In the remaining Institutes, approximately four-fifths of all its students graduated on time. In terms of gender differences, in all but two Institutes (Dundalk and Limerick) a higher percentage of females graduated on time. Overall, 6% more females than males graduated on time, but the corresponding figure in Cork and Letterkenny was 12%.

The largest percentage of students who progressed to their final year on time and graduated late were in Dundalk and in Galway-Mayo (8.2% and 6.0% respectively). Approximately 4% of students who progressed to the final year graduated late in Tralee and Waterford. There were fewer gender differences in evidence among students graduating late than among students graduating on time.

Five Institutes (Athlone, Dundalk, Letterkenny, Tallaght, and Tralee) had no students still in attendance in 1998-99. Of the remaining Institutes, only Cork had a significant number of students (4.1%) still attending and 6.4% were male and only 0.9% female.

Of those progressing to their final year on time, students at Letterkenny, Dundalk, Sligo and Carlow were least likely to complete their course (Table 4.2). In contrast, students who reached their final year on time at Waterford, Tralee, Cork, Galway-Mayo, and Limerick had very low non-completion rates. Gender differences across Institutes in completion rates strongly favoured females, except in Dundalk, Limerick and Tallaght. In seven Institutes (Athlone, Carlow, Cork, Galway-Mayo, Letterkenny, Sligo, and Tralee), males were significantly less likely than females to complete. While in Tralee, very few females (3.4%) who progressed to their final year did not complete, the corresponding figure in Dundalk was almost a quarter (23.2%). In

four Institutes (Athlone, Carlow, Letterkenny, and Sligo), more than 20% of males entering their final year failed to complete.

Table 4.2   Completion Rates for Students (%) Progressing To Their Final Year On Time, By Gender & Institute of Technology

Institute of Technology	Number progressing to final year on time			Graduating on time (%)			Graduating late (%)			Still attending (%)			Not completing (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	3798	3204	7002	80.2	86.5	83.1	3.5	3.0	3.3	1.5	0.3	1.0	14.7	10.2	12.6
Athlone	273	309	582	78.4	84.8	81.8	1.5	3.6	2.6	0.0	0.0	0.0	20.1	11.6	15.6
Carlow	364	301	665	75.5	85.4	80.0	3.6	1.3	2.5	0.3	0.3	0.3	20.6	12.9	17.1
Cork	624	452	1076	78.2	92.0	84.0	2.2	2.0	2.1	6.4	0.9	4.1	13.1	5.1	9.8
Dundalk	250	177	427	77.2	68.9	73.8	8.4	7.9	8.2	0.0	0.0	0.0	14.4	23.2	18.0
Galway-Mayo	460	455	915	80.9	90.1	85.5	7.6	4.4	6.0	1.3	0.2	0.8	10.2	5.3	7.7
Letterkenny	154	145	299	68.2	80.7	74.2	2.6	1.4	2.0	0.0	0.0	0.0	29.2	17.9	23.7
Limerick	323	123	446	92.3	89.4	91.5	0.9	0.8	0.9	0.6	0.0	0.4	6.2	9.8	7.2
Sligo	276	380	656	74.3	83.9	79.9	0.4	1.0	0.8	0.7	0.5	0.6	24.6	14.5	18.7
Tallaght	246	175	421	82.9	83.4	83.1	1.2	0.6	0.9	0.0	0.0	0.0	15.8	16.0	15.9
Tralee	306	268	574	81.7	91.4	86.2	3.9	5.2	4.5	0.0	0.0	0.0	14.4	3.4	9.2
Waterford	522	419	941	84.9	87.8	86.2	4.6	3.8	4.2	1.3	0.2	0.8	9.2	8.1	8.7

5

COMPLETION RATES BY FIELD OF STUDY AND GENDER

_____

In this chapter, we examine completion rates in Institutes of Technology by field of study and gender. Data are presented with reference to: (i) broad fields of study, and (ii) specific fields of study. The broad fields comprise the five areas of study that are central to courses in ITs: Business Studies, Engineering, Science, Computing, and Humanities. It should be noted that the definition of these fields is such as to include not only courses of study that are clearly within a particular field but also ones that involve combinations of disciplines. For example, courses such as 'Business and German' are categorised as 'Business Studies'.

We also examine completion rates in specific fields of study which in all instances are sub-categories of the broad fields. However, the courses are discrete and do not have inter-disciplinary combinations. Specific fields, therefore, involve fewer students than the broad fields. Examples of specific fields are Office Information Systems, Mechanical Engineering, and Construction Studies. These are available at National Certificate level only.

Broad Fields of Study

There are five broad fields of study in the ITs at the National Certificate level, four at Diploma level and three at Degree level. Following an examination of overall rates of completion in the fields, each field is examined with reference to National Certificate, National Diploma, and Degree level studies.

Table 5.1 shows the completion rates for each of the five broad fields of study for all of the Institutes combined. From this table, it can be seen that the highest rate of completion is in the Humanities, in which nearly two-thirds of students graduate on time while almost one third do not complete their courses. In considering these figures two

points are especially relevant. Firstly, the number of students in Humanities is very small (468), only about one-tenth the number in Business Studies. The other important point is that the vast majority of Humanities students are female.

The next highest rate of completion is found in Business Studies. Nearly three-fifths of students complete their courses on time, while just over one-third do not finish their studies. As can be seen in Table 5.1, Business Studies is the largest of the broad fields of study with 4271 students and of these somewhat more than three-fifths are female. In addition, females tend to do rather better with regard to completion. Two-fifths of males do not complete their studies, while this is true of just one-third of females.

The Science area falls in the middle of the broad fields of study with regard to completion. Almost two-fifths of students entering this area of learning do not complete their studies. While females comprise more than half of students commencing studies in this area, unlike the fields of study discussed so far, gender differences in completion rates are minimal.

Finally, non-completion rates in both Engineering and Computing are high, both in absolute terms and compared to other fields of study. In both fields, just half of the students who embark on courses complete them. While gender differences are very small in Engineering, females do rather better than males in Computing.

Table 5.1.   Completion Rates For Fields Of Study, By Gender, In All Institutes of Technology

Field of Study	Number Commencing			Graduating on time			Graduating late			Still attending			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Business Studies	1685	2586	4271	53.3	62.1	58.6	4.3	3.2	3.6	1.7	0.8	1.2	40.8	33.9	36.6
Engineering	3228	310	3538	43.9	44.5	43.9	3.0	3.5	3.1	2.1	1.6	2.1	51.0	50.3	50.9
Science	866	1125	1991	51.4	55.6	53.8	3.6	3.9	3.8	4.8	1.1	2.7	40.2	39.4	39.7
Computing	580	327	907	41.7	46.8	43.5	7.1	5.2	6.4	0.0	0.0	0.0	51.2	48.0	50.0
Humanities	97	371	468	47.4	67.1	63.0	0.0	2.4	1.9	9.3	1.1	2.8	43.3	29.4	32.3

Fields of Study in the Individual Institutes: National Certificate

Tables 5.2 – 5.6 show the pattern of completion in broad fields of study for each Institute for the National Certificate: Business Studies (Table 5.2), Engineering (Table 5.3), Science (Table 5.4), Computing (Table 5.5), and Humanities (Table 5.6).

As can be seen from Table 5.2, the completion rate for the National Certificate in Business Studies is very similar to the corresponding figure in Table 5.1 for all Business Studies courses. Nearly three-fifths of students graduate on time while just over one third do not complete their courses. There are fairly large differences between the ITs with respect to the number of students completing Certificate courses. In Cork and Waterford, less than a quarter of students do not complete their studies, while in Dundalk and Letterkenny, approximately half of students do not complete the Certificate course in Business studies. It is also noteworthy that the gender difference is not consistent. While there are major differences favouring females in most ITs, the differences are minimal in Dundalk and Tralee. However, in Letterkenny and Limerick, somewhat more females than males do not complete the Certificate in Business Studies.

Table 5.2.   Completion Rates In Business Studies (National Certificate), By Gender & Institute of Technology

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	1218	1998	3216	52.9	62.3	58.8	5.7	3.6	4.4	41.3	34.1	36.8
Athlone	124	199	323	55.6	69.3	64.1	1.6	5.0	3.7	42.7	25.6	32.2
Carlow	105	195	300	47.6	53.8	51.7	2.9	3.1	3.0	49.5	43.1	45.3
Cork	126	220	346	65.1	81.8	75.7	4.0	0.9	2.0	30.9	17.3	22.2
Dundalk	180	237	417	43.3	45.1	44.4	4.4	3.8	4.1	52.2	51.0	51.5
Galway-Mayo	190	308	498	49.5	62.0	57.2	9.5	4.5	6.4	41.0	33.4	36.3
Letterkenny	72	145	217	50.0	49.0	49.3	2.8	0.7	1.4	47.2	50.3	49.3
Limerick	38	45	83	73.7	57.8	65.1	0.0	0.0	0.0	26.3	42.2	34.9
Sligo	71	183	254	43.7	66.1	59.8	1.4	1.6	1.6	54.9	32.2	38.6
Tallaght	138	138	276	58.0	65.9	62.0	6.5	5.1	5.8	35.5	29.0	32.2
Tralee	99	199	298	54.5	61.8	59.4	11.1	5.0	7.0	34.3	33.2	33.6
Waterford	75	129	204	57.3	71.3	66.2	14.7	7.7	10.3	28.0	20.9	23.5

The completion rates for Engineering (National Certificate) are shown in Table 5.3 for all Institutes. Since the overall figure not completing is over half, it is to be expected that there would be very high non-completion rates in many of the Institutes and this turns out to be the case. In Letterkenny and Dundalk, around two-thirds of students who enter for a National Certificate in Engineering do not complete their courses, while the percentage of non-completers in Carlow is somewhat below this (60.3%). More than half the students graduate in only four ITs. The lowest level of non-completion is in Waterford IT where just under a third do not complete their courses. The overall gender differences are small, but there are some striking differences between the Institutes. In some cases, females do much better (e.g. Tallaght and Waterford), while in others females do much less well than males (Carlow, Dundalk, Limerick and Tralee).

Table 5.3   Completion Rates In Engineering (National Certificate), By Gender & Institute of Technology

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	2664	229	2893	44.0	42.4	43.8	3.6	4.4	3.6	52.4	53.3	52.5
Athlone	244	9	253	39.3	44.4	39.5	3.3	0.0	3.2	57.4	55.6	57.3
Carlow	285	27	312	36.1	22.2	34.9	4.9	3.7	4.8	58.9	74.1	60.3
Cork	403	60	463	51.4	51.7	51.4	4.2	8.3	4.7	44.4	40.0	43.8
Dundalk	258	28	286	34.9	7.1	32.2	3.5	3.6	3.5	61.6	89.3	64.3
Galway-Mayo	318	23	341	46.2	47.8	46.2	6.9	4.3	6.8	46.8	47.8	47.1
Letterkenny	139	9	148	29.5	22.2	29.0	0.7	11.1	1.3	69.8	66.7	69.6
Limerick	153	14	167	55.5	35.7	53.9	0.0	0.0	0.0	44.4	64.3	46.1
Sligo	218	8	226	42.2	37.5	42.0	0.5	0.0	0.4	57.3	62.5	57.5
Tallaght	170	10	180	42.9	80.0	45.0	1.8	0.0	1.7	55.3	20.0	53.3
Tralee	257	10	267	45.5	30.0	44.9	2.3	0.0	2.2	52.1	70.0	52.8
Waterford	219	31	250	55.2	71.0	57.2	6.4	3.2	6.0	38.4	25.8	36.8

Table 5.4 shows the completion rates for the National Certificate in Science in the ITs. The overall figure for non-completion across the ITs is 40%. However, this figure masks considerable differences between Institutes. The highest rates of non-completion are found in Dundalk and Letterkenny where almost 70% of students who started the National Certificate in Science did not complete their course of studies. In Waterford and Carlow, the number not completing is just over one quarter of those

beginning the course. On average, the rate of completion is higher among females, but there are major differences between the Institutes. In four ITs (Dundalk, Letterkenny Sligo, and Tallaght), more females do not complete their studies while in the remaining ITs more males fail to complete.

Table 5.4   **Completion Rates In Science (National Certificate), By Gender & Institute of Technology**

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	588	953	1541	52.7	57.0	55.3	5.1	4.4	4.7	42.2	38.6	40.0
Athlone	34	82	116	23.5	40.2	35.3	2.9	0.0	0.9	73.5	59.8	63.8
Carlow	84	128	212	65.5	70.3	68.4	4.8	3.1	3.8	29.8	26.6	27.8
Cork	65	107	172	67.7	74.8	72.1	7.7	5.6	6.4	24.6	19.6	21.5
Dundalk	40	66	106	27.5	16.7	20.8	10.0	9.1	9.4	62.5	74.2	69.8
Galway-Mayo	90	137	227	42.2	54.0	49.3	3.3	5.1	4.4	54.4	40.9	46.2
Letterkenny	16	30	46	31.2	26.7	28.3	6.2	0.0	2.2	62.5	73.3	69.5
Limerick	36	56	92	55.5	66.1	62.0	8.3	3.6	5.4	36.1	30.3	32.6
Sligo	21	57	78	66.7	56.1	59.0	0.0	1.7	1.3	33.3	42.1	39.7
Tallaght	58	70	128	39.6	44.3	42.2	8.6	2.8	5.5	51.7	52.8	52.3
Tralee	87	143	230	63.2	65.7	64.8	2.3	7.0	5.2	34.5	27.3	30.0
Waterford	57	77	134	64.9	68.8	67.2	3.5	5.2	4.5	31.6	26.0	28.3

In Table 5.1 we saw that Computing courses in general had a high rate of non-completion. Thus, it is not surprising that the completion rates in the National Certificate in Computing is rather low (50%) (Table 5.5). However, the differences between ITs is not as great as for some other courses. Cork (62.7%),Tallaght (58.6%), and Sligo (58.2%) have the highest rates of non-completion, while the lowest rates are in Galway-Mayo (36.6%) and Waterford (39.3%). As with most areas of study, relatively more females complete their courses but the pattern is not consistent across Institutes. In Carlow, Letterkenny, Sligo, and Tralee, relatively fewer males than females complete their courses. However, the opposite pattern is found in the other Institutes with the exception of Waterford, where rates of completion of males and females are virtually identical.

Table 5.5　Completion Rates In Computing (National Certificate), By Gender & Institute of Technology [1]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	580	327	907	41.7	46.8	43.5	7.1	5.2	6.4	51.2	48.0	50.0
Carlow	125	41	166	34.4	53.7	39.2	4.8	2.4	4.2	60.8	43.9	56.6
Cork	33	18	51	30.3	22.2	27.4	9.1	11.1	9.8	60.6	66.7	62.7
Galway-Mayo	64	37	101	46.9	45.9	46.5	17.2	16.2	16.8	35.9	37.8	36.6
Letterkenny	31	35	66	41.9	54.3	48.5	0.0	0.0	0.0	58.1	45.7	51.5
Limerick	78	41	119	44.9	43.9	44.5	9.0	0.0	5.9	46.1	56.1	49.6
Sligo	40	27	67	37.5	48.1	41.8	0.0	0.0	0.0	62.5	51.8	58.2
Tallaght	71	45	116	39.4	35.5	37.9	4.2	2.2	3.4	56.3	62.2	58.6
Tralee	49	32	81	46.9	59.4	51.8	4.1	3.1	3.7	49.0	37.5	44.4
Waterford	89	51	140	50.6	49.0	50.0	10.1	11.8	10.7	39.3	39.2	39.3

[1]　Data from Athlone & Dundalk do not appear in this table as they did not offer this field of study.

Table 5.6 shows the rate of completion for the National Certificate in the Humanities in three Institutes that offer this course. In considering the non-completion rates two points should be borne in mind. First, the total number of students involved is very small. Secondly, the proportion of male students is very small. Still, there are considerable differences between Institutes in non-completion rates and between male and female students.

Table 5.6　Completion Rates In Humanities (National Certificate), By Gender & Institute of Technology [2]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	24	183	207	50.0	74.9	72.0	0.0	2.7	2.4	50.0	22.4	25.6
Athlone	9	47	56	100.0	83.0	85.7	0.0	2.1	1.8	0.0	14.9	12.5
Cork	8	55	63	25.0	74.5	68.2	0.0	5.4	4.8	75.0	20.0	27.0
Sligo	7	81	88	14.3	70.4	65.9	0.0	1.2	1.1	85.7	28.4	32.9

[2]　Data from Carlow, Dundalk, Galway-Mayo, Letterkenny, Limerick, Tallaght, Tralee, & Waterford do not appear in this table as they did not offer this field of study.

Fields of Study in Individual Institutes: National Diploma

Tables 5.7 – 5.10 show the pattern of completion in broad fields of study for each Institute of Technology for the National Diploma: in which *ab initio* Diplomas were available in 1995: Business Studies (Table 5.7), Engineering (Table 5.8), Science (Table 5.9), and Humanities (Table 5.10). It should be noted, that the figures do not include students who transfer from National Certificates to Diplomas.

The number of students taking the National Diploma in Business Studies is under a quarter of the number taking the National Certificate. The overall completion rate for the Diploma (Table 5.7) is somewhat less than that for the National Certificate (Table 5.2). Relatively low rates of completion are found in Letterkenny and Limerick where about two-thirds of students do not complete. However, only just over 15% of students do not complete their courses in Sligo. As in the case of the National Certificate, relatively more males do not complete Diploma courses, a pattern that is fairly consistent across the ITs. Carlow is an exception in that a slightly greater proportion of females than males do not complete.

Table 5.7   Completion Rates In Business Studies (National Diploma), By Gender & Institute of Technology [3]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Still attending			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	325	399	724	52.3	59.6	56.3	0.6	2.5	1.7	2.8	2.5	2.6	44.3	35.3	39.4
Athlone	48	72	120	56.2	62.5	60.0	0.0	0.0	0.0	4.2	2.8	3.3	39.6	34.7	36.7
Carlow	39	54	93	61.5	63.0	62.4	0.0	0.0	0.0	5.1	1.8	3.2	33.3	35.2	34.4
Galway-Mayo	45	74	119	62.2	63.5	63.0	2.2	6.8	5.0	0.0	0.0	0.0	35.5	29.7	31.9
Letterkenny	30	33	63	30.0	39.4	34.9	0.0	0.0	0.0	0.0	0.0	0.0	70.0	60.6	65.1
Limerick	53	24	77	32.1	33.3	32.5	0.0	4.2	1.3	0.0	0.0	0.0	67.9	62.5	66.2
Sligo	35	53	88	68.6	84.9	78.4	2.8	0.0	1.1	8.6	1.9	4.5	20.0	13.2	15.9
Waterford	75	89	164	54.7	51.7	53.0	0.0	4.5	2.4	2.7	6.7	4.9	42.7	37.1	39.6

3   Data from Cork, Dundalk, Tallaght & Tralee do not appear in this table as they did not offer this field of study.

Table 5.8 displays completion rates for the National Diploma in Engineering. Rates are very similar to those for the National Certificate. Again, the numbers involved in the Diploma are much smaller than the numbers taking Certificate courses (about one-tenth in the case of Engineering). Of the four ITs involved, the highest non-

completion rate is in Athlone, where nearly two-thirds of students do not complete their courses, while the lowest non-completion rate is in Cork, where just over one-third do not finish. The very small number of females who embarked on this course does not allow inferences about gender differences in completion.

Table 5.8 **Completion Rates In Engineering (National Diploma), By Gender & Institute of Technology [4]**

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Still attending			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	269	44	313	40.5	47.7	41.5	1.1	2.3	1.3	5.9	0.0	5.1	52.4	50.0	52.1
Athlone	16	7	23	31.2	42.9	34.8	0.0	0.0	0.0	0.0	0.0	0.0	68.7	57.1	65.2
Cork	94	17	111	52.1	58.8	53.1	2.1	5.9	2.7	11.7	0.0	9.9	34.0	35.3	34.2
Dundalk	34	3	37	41.2	66.7	43.2	0.0	0.0	0.0	5.9	0.0	5.4	52.9	33.3	51.3
Limerick	125	17	142	32.8	35.3	33.1	0.8	0.0	0.7	2.4	0.0	2.1	64.0	64.7	64.1

[4]   Data from Carlow, Galway-Mayo, Letterkenny, Sligo, Tallaght , Tralee & Waterford do not appear in this table as they did not offer this field of study.

Only 151 students participated in the course of studies for the National Diploma in Science (Table 5.9). The overall rate of non-completion is somewhat greater than for the National Certificate in Science (46.3% vs. 40.0%). Rates of non-completion vary dramatically between Institutes, from 86.8% to 11.6%. The overall gender difference in non-completion was very small.

Table 5.9 **Completion Rates In Science (National Diploma), By Gender & Institute of Technology [5]**

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Still attending			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	58	93	151	51.7	50.5	51.0	1.7	2.1	2.0	0.0	1.1	0.7	46.5	46.2	46.3
Cork	23	20	43	78.3	100.0	88.4	0.0	0.0	0.0	0.0	0.0	0.0	21.7	0.0	11.6
Letterkenny	11	27	38	9.1	14.8	13.2	0.0	0.0	0.0	0.0	0.0	0.0	90.9	85.2	86.8
Sligo	24	46	70	45.8	50.0	48.6	4.2	4.3	4.3	0.0	2.2	1.4	50.0	43.5	45.7

[5]   Data from Athlone, Carlow, Dundalk, Galway-Mayo, Limerick, Tallaght , Tralee & Waterford do not appear in this table as they did not offer this field of study.

Table 5.10 shows the completion rates for the National Diploma in Humanities in all relevant ITs. The rate of completion is lower than for the corresponding course at National Certificate level. The highest rates of non-completion are found in Galway-Mayo and Cork, the lowest in Waterford and Tralee. The overall gender difference favouring females is substantial, but gender differences are not consistent across

Institutes. Further, the number of students (particularly of males) is quite low in some

Institutes.

Table 5.10   **Completion Rates In Humanities (National Diploma), By Gender & Institute of Technology** [6]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Still attending			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	58	169	227	48.3	59.2	56.4	0.0	2.4	1.8	1.7	0.0	0.4	50.0	38.5	41.4
Cork	18	56	74	66.7	50.0	54.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	50.0	46.0
Galway-Mayo	21	44	65	28.6	54.5	46.1	0.0	4.5	3.1	0.0	0.0	0.0	71.4	40.9	50.8
Sligo	12	24	36	50.0	58.3	55.5	0.0	8.3	5.5	0.0	0.0	0.0	50.0	33.3	38.9
Tralee	2	8	10	50.0	75.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	25.0	30.0
Waterford	5	37	42	60.0	75.7	73.8	0.0	0.0	0.0	20.0	0.0	2.4	20.0	24.3	23.8

[6]   **Data from Athlone, Carlow, Dundalk, Letterkenny, Limerick & Tallaght do not appear in this table as they did not offer this field of study.**

Fields of Study in the Individual Institutes: Degree Courses

Tables 5.11 – 5.13 show the pattern of completion in broad fields of study for each Institute in which Degree Courses were available in 1995: Business Studies (Table 5.11), Engineering (Table 5.12), and Science (Table 5.13). The figures refer to students following degree courses *ab initio* and do not include students who transferred from National Certificate/Diploma courses to degree courses.

The non-completion rate for students who embarked on a degree course in Business Studies is lower than for students in Certificate and Diploma courses (Table 5.11). Over three-fifths graduate on time and just over a quarter fail to complete their studies. While the overall gender differences are negligible, a greater percentage of males than of females failed to complete in Galway-Mayo, while the opposite pattern is found in Waterford.

Table 5.11   **Completion Rates In Business Studies (Degree), By Gender & Institute of Technology** [7]

Institute of Technology	Number Commencing			Graduating on time			Still attending			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	142	189	331	58.4	65.1	62.2	13.4	6.3	9.4	28.2	28.6	28.4
Galway-Mayo	31	66	97	45.2	68.2	60.8	6.4	1.5	3.1	48.4	30.3	36.1
Waterford	111	123	234	62.2	63.4	62.8	15.3	8.9	12.0	22.5	27.6	25.2

[7]   **Data from Athlone, Carlow, Cork, Dundalk, Letterkenny, Limerick, Sligo, Tallaght & Tralee do not appear in this table as they did not offer this field of study.**

Table 5.12 shows the completion rates for Degree courses in Engineering. The completion rate is substantially higher than for the National Certificate or Diploma courses in Engineering. There are quite large differences between the Institutes. Completion rates in Limerick and Cork are relatively high, but are very low in Galway-Mayo and Waterford. The number of females is so small as to make gender comparisons inappropriate.

Table 5.12   Completion Rates In Engineering (Degree), By Gender & Institute of Technology [8]

Institute of Technology	Number Commencing			Graduating on time			Still attending			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	283	36	319	47.7	55.5	48.6	18.4	13.9	17.9	33.9	30.5	33.5
Cork	103	13	116	35.9	69.2	39.6	34.9	23.1	33.6	29.1	7.7	26.7
Galway-Mayo	52	5	57	28.8	20.0	28.1	11.5	20.0	12.3	59.6	60.0	59.6
Limerick	90	18	108	80.0	55.5	75.9	5.5	5.5	5.5	14.4	38.9	18.5
Waterford	38	-	38	28.9	-	28.9	13.2	-	13.2	57.9	-	57.9

[8]   **Data from Athlone, Carlow, Dundalk, Letterkenny, Sligo, Tallaght & Tralee do not appear in this table as they did not offer this field of study**

Completion rates for Degree courses in Science are shown in Table 5.13. As in the case of other courses, relatively more students obtain a qualification in a Degree course in Science than in Certificate or Diploma courses in Science. The highest level of completion is in Sligo while the lowest is in Waterford. Overall, the male completion rate is better than the female one, but the pattern is not consistent across Institutes. In Cork and Waterford, females have a relatively higher rate of non-completion while the opposite is the case in Sligo.

Table 5.13   Completion Rates In Science (Degree), By Gender & Institute of Technology [9]

Institute of Technology	Number Commencing			Graduating on time			Still attending			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	220	79	299	47.7	45.6	47.2	19.1	13.9	17.7	33.2	40.5	35.1
Cork	67	25	92	35.8	36.0	35.9	38.9	20.0	33.7	25.4	44.0	30.4
Sligo	20	19	39	55.0	57.9	56.4	15.0	21.0	17.9	30.0	21.0	25.6
Waterford	133	35	168	52.6	45.7	51.2	9.8	5.7	8.9	37.6	48.6	39.9

[9]   **Data from Athlone, Carlow, Dundalk, Letterkenny, Limerick, Tallaght & Tralee do not appear in this table as they did not offer this field of study**

Specific Fields of Study

In the preceding sections, completion rates for broad fields of study leading to National Certificate, National Diploma and Degree courses have been described. As explained above, these broad fields sometimes include inter-disciplinary courses, with the result that their designation can be somewhat arbitrary. In this section, we provide data on specific courses that have a clearly defined focus of learning and are at National Certificate level only, for example, Civil Engineering.

Table 5.14 presents the results for Business Studies. Overall, over one-third of students did not complete their courses. The highest non-completion rate is Galway-Mayo (Castlebar campus), with a non-completion rate of nearly two-thirds and Letterkenny which has a non-completion rate of over a half. The lowest non-completion rates are in Cork and Waterford. Overall, there are fairly substantial gender differences in completion favouring females. This is so in all Institutes except one, though in some Institutes, gender differences are slight.

Table 5.14   Completion Rates in Business Studies, By Gender & Institute of Technology [10]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	733	761	1494	55.4	65.0	60.3	5.3	4.1	4.7	39.3	30.9	35.0
Athlone	115	90	205	55.7	67.8	61.0	1.7	6.7	3.9	42.6	25.5	35.1
Carlow	76	88	164	57.9	59.1	58.5	3.9	3.4	3.7	38.2	37.5	37.8
Cork	74	94	168	64.9	85.1	76.2	2.7	0.0	1.2	32.4	14.9	22.6
Galway-Mayo	82	97	179	65.8	70.1	68.2	3.7	2.7	2.8	30.5	27.8	29.0
Galway-Mayo (C)	44	53	97	20.5	28.3	24.7	13.6	7.5	10.3	65.9	64.2	65.0
Letterkenny	44	34	78	43.2	44.1	43.6	4.5	2.9	3.8	52.3	52.9	52.6
Sligo	34	33	67	50.0	72.7	61.2	2.9	3.0	3.0	47.1	24.2	35.8
Tallaght	138	138	276	58.0	66.0	62.0	6.5	5.1	5.8	35.5	29.0	32.2
Tralee	87	86	173	56.3	62.8	59.5	6.9	3.5	5.2	36.8	33.7	35.3
Waterford	39	48	87	56.4	72.9	65.6	12.8	8.3	10.3	30.8	18.8	24.1

10   **Data from Dundalk & Limerick do not appear in this table as they did not offer this field of study**

Just over two-fifths of students who study Office Information Systems fail to complete their courses (Table 5.15). There are large difference in non-completion between the Institutes, with Dundalk and Letterkenny having the highest levels of non-completion, and Cork, Galway-Mayo, and Sligo, the lowest. It is not appropriate to

draw inferences from the figures on gender differences, especially in the individual ITs given the small number of males on Office Information courses.

Table 5.15   Completion Rates in Office Information Systems, By Gender & Institute of Technology [11]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	44	555	599	27.3	58.5	56.3	4.5	3.2	3.3	68.2	38.2	40.4
Athlone	3	62	65	0.0	62.9	60.0	0.0	6.5	6.2	100.0	30.6	33.8
Carlow	9	90	99	33.3	52.2	50.5	0.0	3.3	3.0	66.7	44.4	46.5
Cork	2	40	42	100.0	80.0	80.9	0.0	0.0	0.0	0.0	20.0	19.0
Dundalk	13	95	108	23.1	25.3	25.0	0.0	6.3	5.6	76.9	68.4	69.4
Galway-Mayo	5	76	81	0.0	72.4	67.9	40.0	2.1	4.9	60.0	25.0	27.2
Letterkenny	2	46	48	0.0	47.8	45.8	0.0	0.0	0.0	100.0	52.2	54.2
Sligo	5	71	76	20.0	77.5	73.7	0.0	1.4	1.3	80.0	21.1	25.0
Tralee	5	75	80	60.0	68.0	67.5	0.0	2.7	2.5	40.0	29.3	30.0

[11]   Data from Limerick, Tallaght & Waterford do not appear in this table as they did not offer this field of study

Mechanical Engineering has a non-completion rate of over a half (Table 5.16). Rates are very high in most ITs, but are especially so in Limerick. Waterford has the lowest non-completion rate, with just over one-quarter of students not completing their courses. The number of females in Mechanical Engineering courses is very small; in fact there is none in some Institutes.

Table 5.16   Completion Rates in Mechanical Engineering, By Gender & Institute of Technology

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	560	26	586	46.2	30.8	45.6	2.1	0.0	2.0	51.6	69.2	52.4
Athlone	53	1	54	37.7	0.0	37.0	1.9	0.0	1.9	60.4	100.0	61.1
Carlow	59	-	59	42.4	-	42.4	0.0	-	0.0	57.6	-	57.6
Cork	64	3	67	59.4	66.7	59.7	1.6	0.0	1.5	39.1	33.3	38.8
Dundalk	43	9	52	32.6	11.1	28.8	4.6	0.0	3.8	62.8	88.9	67.3
Galway-Mayo	51	4	55	58.8	75.0	60.0	3.9	0.0	3.6	37.3	25.0	36.4
Letterkenny	22	-	22	40.9	-	40.9	0.0	-	0.0	59.1	-	59.1
Limerick	35	4	39	20.0	0.0	17.9	0.0	0.0	0.0	80.0	100.0	82.0
Sligo	47	1	48	29.8	0.0	29.2	2.1	0.0	2.1	68.1	100.0	68.7
Tallaght	91	3	94	48.3	66.7	48.9	2.2	0.0	2.1	49.4	33.3	48.9
Tralee	54	1	55	57.4	0.0	56.4	0.0	0.0	0.0	42.6	100.0	43.6
Waterford	41	-	41	65.9	-	65.9	7.3	-	7.3	26.8	-	26.8

The rate of non-completion is high for Civil Engineering (Table 5.17), though somewhat below that for Mechanical Engineering. Letterkenny had the highest non-completion rate, Limerick the lowest. As in the case of other courses in Engineering, the relatively small number of females preclude inferences about gender differences.

Table 5.17   Completion Rates in Civil Engineering, By Gender & Institute of Technology [12]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	503	42	545	49.5	33.3	48.2	3.2	9.5	3.7	47.3	57.1	48.1
Athlone	39	5	44	41.0	60.0	43.2	2.6	0.0	2.3	56.4	40.0	54.5
Carlow	59	5	64	32.2	0.0	29.7	11.9	20.0	12.5	55.9	80.0	57.8
Cork	60	12	72	58.3	33.3	54.2	1.7	25.0	5.6	40.0	41.7	40.3
Dundalk	65	3	68	40.0	33.3	39.7	6.1	0.0	5.9	53.8	66.7	54.4
Galway-Mayo	50	3	53	72.0	0.0	67.9	0.0	0.0	0.0	28.0	100.0	32.1
Letterkenny	42	4	46	30.9	50.0	32.6	0.0	0.0	0.0	69.0	50.0	67.4
Limerick	55	3	58	76.4	33.3	74.1	0.0	0.0	0.0	23.6	66.7	25.9
Sligo	52	1	53	46.1	0.0	45.3	0.0	0.0	0.0	53.8	100.0	54.7
Tralee	54	4	58	46.3	25.0	44.8	5.6	0.0	5.2	48.1	75.0	50.0
Waterford	27	2	29	48.1	100.0	51.7	0.0	0.0	0.0	51.9	0.0	48.3

[12]   Data from Tallaght do not appear in this table as they did not offer this field of study

Electronics has a particularly high rate of non-completion, with over three-fifths of students failing to complete their courses (Table 5.18). As might be expected from this overall figure, rates of non-completion are high in most Institutes. Only Waterford has a relatively low non-completion rate. Even there however, nearly one-third of students do not complete their course.

Table 5.18   Completion Rates in Electronics, By Gender & Institute of Technology

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	633	47	680	33.6	34.0	33.7	6.2	4.2	6.0	60.2	61.7	60.3
Athlone	48	-	48	33.3	-	33.3	0.0	-	0.0	62.5	-	62.5
Carlow	73	7	80	26.0	0.0	23.7	8.2	0.0	7.5	65.7	100.0	68.7
Cork	105	6	111	37.1	33.3	36.9	9.5	16.7	9.9	53.3	50.0	53.1
Dundalk	51	8	59	19.6	0.0	16.9	2.0	0.0	1.7	78.4	100.0	81.4
Galway-Mayo	68	4	72	42.7	25.0	42.2	10.4	25.0	11.3	47.1	50.0	47.9
Galway-Mayo (C)	27	-	27	14.8	-	14.8	14.8	-	14.8	70.4	-	70.4
Letterkenny	34	3	37	20.6	0.0	18.9	0.0	0.0	0.0	74.9	100.0	81.1
Limerick	30	2	32	46.7	50.0	46.9	0.0	0.0	0.0	53.3	50.0	53.1
Sligo	32	4	36	34.4	50.0	36.1	0.0	0.0	0.0	65.6	50.0	63.9
Tallaght	79	7	86	36.7	85.7	40.7	1.3	0.0	1.2	62.0	14.3	58.1
Tralee	51	4	55	35.3	50.0	36.4	3.9	0.0	3.6	60.8	50.0	60.0
Waterford	35	2	37	48.6	100.0	51.4	17.1	0.0	16.2	34.3	0.0	32.4

Just over half (54.2%) of students who embarked on courses in Construction Studies did not complete their courses (Table 5.19). In some Institutes, non-completion is much higher: 73.1% in Galway-Mayo and 69.2% in Carlow. Waterford (32.2%) and Limerick (34.2%) had the lowest non-completion rates.

Table 5.19   Completion Rates in Construction Studies, By Gender & Institute of Technology [13]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	560	54	614	42.7	50.0	43.3	2.1	5.5	2.4	55.2	44.4	54.2
Athlone	60	3	63	38.3	33.3	38.1	1.7	0.0	1.6	60.0	66.7	60.3
Carlow	49	3	52	30.6	33.3	30.8	0.0	0.0	0.0	69.4	66.7	69.2
Cork	58	13	71	41.4	53.8	43.7	0.0	0.0	0.0	58.6	46.1	56.3
Dundalk	80	5	85	40.0	0.0	37.7	2.5	20.0	3.5	57.5	80.0	58.8
Galway-Mayo	25	1	26	16.0	100.0	15.4	8.0	0.0	7.7	76.0	0.0	73.1
Galway-Mayo (C)	38	4	42	42.1	50.0	42.9	2.6	0.0	2.4	55.3	50.0	54.8
Letterkenny	41	2	43	29.3	0.0	27.9	2.4	50.0	4.6	68.3	50.0	67.4
Limerick	33	5	38	66.7	60.0	65.8	0.0	0.0	0.0	33.3	40.0	34.2
Sligo	59	2	61	52.5	50.0	52.5	0.0	0.0	0.0	47.5	50.0	47.5
Tralee	45	1	46	37.8	0.0	37.0	2.2	0.0	2.2	60.0	100.0	60.9
Waterford	72	15	87	59.7	73.3	62.1	5.5	6.7	5.7	34.7	20.0	32.2

13   Data from Tallaght do not appear in this table as they did not offer this field of study.

Overall, just over two-fifths of the students who embark on Science courses do not complete their studies (Table 5.20). There are major differences in completion rates between Institutes. In Dundalk and Letterkenny, almost 7 out of 10 students fail to complete. This contrasts with a figure of 1 in 5 in Cork. Two thirds of the students who embarked on Science courses were female. Overall, the female non-completion rate (40.5%) is lower than the male rate (43.5%). Institutes differ considerably in the pattern of gender differences. Females are much more likely than males to complete Science courses in Athlone, Tralee and Waterford, but much less likely in Dundalk, Sligo and Letterkenny.

Table 5.20   Completion Rates in Science, By Gender & Institute of Technology [14]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	421	780	1201	50.1	54.7	53.1	6.4	4.7	5.3	43.5	40.5	41.5
Athlone	34	82	116	23.5	40.2	35.3	2.9	0.0	0.9	73.5	59.8	63.8
Carlow	58	71	129	62.1	57.7	59.7	6.9	4.2	5.4	31.0	38.0	34.9
Cork	41	97	138	68.3	75.3	73.2	7.3	6.2	6.5	24.4	18.5	20.3
Dundalk	40	66	106	27.5	16.7	20.8	10.0	9.1	9.4	62.5	74.2	69.8
Galway-Mayo	57	117	174	54.4	60.7	58.6	5.3	6.0	5.8	40.4	33.3	35.6
Letterkenny	10	28	38	40.0	25.0	28.9	10.0	0.0	2.6	50.0	75.0	68.4
Limerick	36	56	92	55.5	66.1	61.9	8.3	3.6	5.4	36.1	30.3	32.6
Sligo	21	57	78	66.7	56.1	59.0	0.0	1.7	1.3	33.3	42.1	39.7
Tallaght	58	70	128	39.7	44.3	42.2	8.6	2.9	5.5	51.7	52.9	52.3
Tralee	28	69	97	57.1	66.7	63.9	3.6	8.7	7.2	39.3	24.6	28.9
Waterford	38	67	105	52.6	65.7	61.0	5.3	6.0	5.7	42.1	28.4	33.3

[14]   Data from Carlow, Cork, Limerick Tralee and Letterkenny are for Chemistry and Biology subjects combined, data from all other ITs are general science.

Almost half the students who begin Computing studies do not finish their courses (Table 5.21). Rates of non-completion are high in all the Institutes except Galway-Mayo where just under 30% do not complete their studies. A slightly higher proportion of females than of males complete their courses, but the pattern is not consistent across Institutes. For example, in Carlow the proportion of females completing their studies on time is much higher than the proportion of males. On the other hand, in Cork, Galway-Mayo, Limerick and Tallaght, the difference favours males.

Table 5.21   Completion Rates in Computing, By Gender & Institute of Technology [15]

Institute of Technology	Number Commencing			Graduating on time			Graduating late			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	539	317	856	41.9	47.6	44.0	7.6	5.4	6.8	50.5	47.0	49.2
Carlow	84	31	115	32.1	64.5	40.9	7.1	3.2	6.1	60.7	32.3	53.0
Cork	33	18	51	30.3	22.2	27.4	9.1	11.1	9.8	60.6	66.7	62.7
Galway-Mayo	31	26	57	58.1	50.0	54.4	16.1	15.4	15.8	25.8	34.6	29.8
Galway-Mayo (C)	33	11	44	36.4	36.4	36.4	18.2	18.2	18.2	45.5	45.5	45.5
Letterkenny	31	35	66	41.9	54.3	48.5	0.0	0.0	0.0	58.1	45.7	51.5
Limerick	78	41	119	44.9	43.9	44.5	9.0	0.0	5.9	46.1	56.1	49.6
Sligo	40	27	67	37.5	48.1	41.8	0.0	0.0	0.0	62.5	51.8	58.2
Tallaght	71	45	116	39.4	35.6	37.9	4.2	2.2	3.4	56.3	62.2	58.6
Tralee	49	32	81	46.9	54.9	51.8	4.1	3.1	3.7	49.0	37.5	44.4
Waterford	89	51	140	50.6	49.0	50.0	10.1	11.8	10.7	39.3	39.2	39.3

[15]   **Data from Athlone, Dundalk do not appear in this table as they did not offer this field of study.**

COMPLETION RATES BY ENTRY REQUIREMENTS AND GENDER

A relationship between course entry requirements and completion rates in Institutes of Technology might be expected in view of the fact that entry requirements vary for courses. To examine the relationship, courses were divided into three broad categories in accordance with the Leaving Certificate Examination points required for entry in 1995[1]. The division was such that each category contained approximately one-third of courses. It did not, however, result in an equal number of students in each of the categories since courses with higher points have more students. The categorisation is as follows: (i) courses with low entry points (75-200); (ii) courses with medium entry points (205-285); (iii) courses with high entry points (290-525); (iv) courses accepting all qualified applicants; and (v) restricted application courses. The last group comprised courses that involved some tests of competency or aptitude in addition to the minimum entry points.

When data are aggregated for all eleven ITs, the relationship between points required at entry and completion rates is obvious (Table 6.1). In courses with high entry points, 61.6% of students graduated on time and 31.1% left college without having obtained a qualification in the course for which they first enrolled. Except for the Restricted Entry category, the percentage graduating on time decreases as the number of points for entry decreases, while the percentage not completing increases until one reaches the point in courses admitting all qualified applicants, in which under one-third of students graduated on time and almost two thirds failed to complete their courses. Courses with medium entry requirements had similar non-completion rates to courses with restricted entry: approximately two-fifths of students failed to complete. Students in restricted entry courses were slightly more likely than those attending courses with

---

[1] At the request of the Steering Committee courses were divided into six broad categories. Data based on these categories are presented in Appendix B.

medium points to graduate on time. However, no student in the former category either graduated late or was still in attendance in 1998-99 while this was true of 5% of students in medium points courses. Gender differences are apparent at all points levels. In all cases, except for Restricted Entry students, a greater proportion of males than of females fail to complete. Similarly, again with the exception of Restricted Entry, a greater proportion of females than of males graduate of time.

Table 6.1   Completion Rates by CAO Entry Points & Gender In All Institutes of Technology

CAO entry points	Number Commencing			Graduating on time (%)			Graduating late (%)			Still attending (%)			Not completing (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
290-525	1184	1931	3815	55.6	67.5	61.6	2.9	3.5	3.2	6.6	1.6	4.1	35.0	27.4	31.1
205-285	2058	1330	3388	50.3	59.6	54.0	4.7	3.8	4.3	0.6	0.5	0.6	44.4	36.0	41.1
75-200	2126	1246	3372	39.3	46.9	42.1	3.6	3.1	3.4	0.1	0.0	0.1	57.0	50.0	54.4
AQA*	314	132	446	27.1	39.4	30.5	4.8	4.5	4.7	1.3	2.3	1.6	66.9	53.8	63.0
Restricted Entry	50	20	70	60.0	55.0	58.6	0.0	0.0	0.0	0.0	0.0	0.0	40.0	45.0	41.4

* All Qualified Applicants

When we consider the low points (75-200) category for each IT separately (Table 6.2), quite substantial differences in completion rates across institutions are apparent. For example, approximately three-fifths of students who entered courses with low points in Dundalk and Letterkenny failed to complete. Three ITs (Carlow, Tralee, and Athlone), while having slightly lower non-completion rates (52.2%, 52.9% and 56.2% respectively), still saw over half of their students in courses with low points fail to complete. Of the remaining ITs, the rate of non-completion in Limerick, Galway-Mayo and Sligo ranged from 44.9 to 48.0%, while Waterford had the lowest non-completion rate (39.7%).

In all but two ITs (Dundalk and Tralee), a higher percentage of males than of females failed to complete. There was no gender difference in non-completion in Galway-Mayo. In three ITs (Athlone, Carlow, and Limerick), the difference between the non-completion rates of male and female students exceeded 12%, while in the Institute with the largest gender difference (Sligo), it was 19.9%. Females also did consistently better than males when it came to graduating on time in almost all ITs. However, differences between Institutes were again large. For example, just over one-

third of females in Galway-Mayo graduated on time compared to two-thirds in Waterford.

It is apparent that Galway-Mayo students in the low points category had one of the lowest percentage of students graduating on time (36.4%). However a very high percentage of students graduated late (18.2%), with the result that Galway-Mayo had a better than average non-completion rate. In Waterford and Sligo, a similar percentage of students graduated on time (49.2% and 50.9% respectively). However 11.1% of students in Waterford compared with only 0.9% in Sligo graduated late which resulted in Waterford having a much lower non-completion rate.

Table 6.2   **Completion Rates For Students Entering Courses With 75-200 Cut-off Points, By Gender & Institute of Technology [1]**

Institute of Technology	Number Commencing			Graduating on time (%)			Graduating late (%)			Still attending (%)			Not completing (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Athlone	258	155	413	36.0	49.0	40.9	3.1	2.6	2.9	0.0	0.0	0.0	60.8	48.4	56.2
Carlow	461	267	728	37.7	53.6	43.5	5.0	3.0	4.3	0.0	0.0	0.0	57.3	43.4	52.2
Dundalk	497	320	817	36.8	33.7	35.6	4.2	5.0	4.5	0.4	0.0	0.2	58.5	61.2	59.6
Galway-Mayo	33	11	44	36.4	36.4	36.4	18.2	18.2	18.2	0.0	0.0	0.0	45.4	45.4	45.4
Letterkenny	211	208	419	33.6	41.8	37.7	1.9	1.0	1.4	0.0	0.0	0.0	64.4	57.2	60.9
Limerick	105	53	158	49.5	62.3	53.8	0.9	1.9	1.3	0.0	0.0	0.0	49.5	35.8	44.9
Sligo	269	185	454	43.1	62.2	50.9	0.4	1.6	0.9	0.4	0.0	0.2	56.1	36.2	48.0
Tralee	235	41	276	45.5	34.1	43.8	2.5	7.3	3.3	0.0	0.0	0.0	51.9	58.5	52.9
Waterford	57	6	63	47.4	66.7	49.2	12.3	0.0	11.1	0.0	0.0	0.0	40.3	33.3	39.7

1 Data from Cork & Tallaght do not appear in this table as they did not offer any courses with 75-200 points

While completion rates for courses with medium points (205-285) were higher than for courses with low points across all Institutes, the percentage not completing was still substantial (41.1%) (Table 6.1). The highest non-completion rate was in Galway-Mayo, where over half of the students did not complete (Table 6.3). Dundalk, with very few medium points students, had the lowest percentage of students not completing (17.2%). Once again in most Institutes, more males than females failed to complete: on average 44.4% of males compared to just over one-third of females. In Dundalk, female students did particularly well: no female left without completing (it should be noted that this was the Institute where males also did best). Females also did relatively well in Athlone where their non-completion rate was less than a quarter. Gender differences

favouring females were also large in Sligo (20.6%). The gender difference in
Letterkenny for medium points students was almost as large (16.2%) but in this case it
favoured males. While over half of females failed to complete their courses, this was
true of only over one-third of males.

Table 6.3   **Completion Rates For Students Entering Courses With 205-285 Cut-off Points, By Gender & Institute of Technology**

Institute of Technology	Number Commencing			Graduating on time (%)			Graduating late (%)			Still attending (%)			Not completing (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Athlone	192	163	355	50.5	72.4	60.6	1.6	3.7	2.5	0.0	0.6	0.3	47.9	23.3	36.6
Carlow	167	126	293	54.5	53.2	53.9	2.4	3.2	2.7	1.2	0.8	1.0	41.9	42.8	42.3
Cork	423	53	476	50.8	52.8	51.0	4.7	7.5	5.0	1.9	0.0	1.7	42.5	39.6	42.2
Dundalk	15	14	29	66.7	100.0	82.8	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	17.2
Galway-Mayo	144	68	212	33.3	48.5	38.4	9.0	4.4	7.6	0.0	0.0	0.0	57.6	47.1	54.4
Letterkenny	24	54	78	62.5	46.3	51.3	0.0	0.0	0.0	0.0	0.0	0.0	37.5	53.7	48.7
Limerick	171	89	260	61.4	50.6	57.7	4.1	0.0	2.7	0.0	0.0	0.0	41.7	49.4	39.6
Sligo	103	150	253	39.8	62.7	53.3	2.9	1.3	2.0	1.9	1.3	1.6	55.3	34.7	43.1
Tallaght	366	218	584	48.1	59.6	52.4	4.6	4.1	4.4	0.0	0.0	0.0	47.3	36.2	43.1
Tralee	218	287	505	51.8	64.1	58.8	6.4	4.9	5.5	0.0	0.0	0.0	41.7	31.0	35.6
Waterford	235	108	343	53.2	50.9	52.5	6.4	8.3	7.0	0.0	2.8	0.9	40.4	38.0	39.6

Courses with high points (290-525) revealed lower rates of non-completion
(31.1%) than courses with medium points in all ITs. The range, however, for high
points courses was considerable, from as low as 8.1% in Carlow to as high as 58.6% in
Tallaght. In fact, Tallaght was the only IT in which the percentage of students failing to
complete was higher for high points courses than for medium points courses. Again,
similar to previous findings, fewer females than males failed to complete their courses
in most Institutes. The exceptions were Carlow, Limerick, and Tallaght. The
percentage of students graduating on time was quite high. In seven ITs (Athlone,
Carlow, Cork, Galway-Mayo, Sligo, Tralee, and Waterford), over three-fifths of females
graduated on time. In the case of males, this was true of five ITs (Athlone, Carlow,
Limerick, Sligo, and Tralee). The percentage of students graduating on time in Tallaght
was very low relative to the other ITs: less than two-fifths of male and female students
graduated on time from courses with high points. In contrast, Carlow revealed a very
high graduation rate with all males and 9 out of 10 females graduating on time. In

general, few students graduated late from their courses. Tralee and Galway-Mayo had
the highest percentage of students graduating late (4.8% and 4.7% respectively). Cork
had a high percentage of males (13.0%) compared to females (1.7%) still in attendance.

Table 6.4   **Completion Rates For Students Entering Courses With 290-525 Cut-off Points, By
Gender & Institute of Technology [2]**

Institute of Technology	Number Commencing			Graduating on time (%)			Graduating late (%)			Still attending (%)			Not completing (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Athlone	37	99	136	64.9	68.7	67.6	0.0	1.0	0.7	5.4	1.0	2.2	29.7	29.3	29.4
Carlow	10	52	62	100.0	90.4	91.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	8.1
Cork	499	482	981	51.7	73.8	62.6	2.4	3.1	2.7	13.0	1.7	7.4	32.9	21.4	27.2
Galway-Mayo	514	544	1058	53.7	63.4	58.7	4.7	4.8	4.7	1.5	0.4	0.9	40.1	31.4	36.6
Limerick	126	24	150	67.4	54.2	65.3	0.0	0.0	0.0	6.3	4.2	6.0	26.2	41.7	28.7
Sligo	76	163	239	63.2	67.5	66.1	0.0	2.4	1.7	3.9	2.4	2.9	32.9	27.6	29.3
Tallaght	71	45	116	39.4	35.5	37.9	4.2	2.2	3.4	0.0	0.0	0.0	56.3	62.2	58.6
Tralee	41	64	105	73.2	73.4	73.3	2.4	6.2	4.8	0.0	0.0	0.0	24.4	20.3	21.9
Waterford	510	458	968	56.5	65.7	60.8	2.7	3.5	3.1	7.4	3.5	5.6	33.3	27.3	30.5

2. Data from Dundalk & Letterkenny do not appear in this table as they did not offer any courses with 290-525 points

Four ITs offered courses which accepted all qualified applicants. These courses
had the highest non-completion rate of all courses when the data for the Institutes were
aggregated (63.0%) (Table 6.1). Seven in ten males who entered this type of course
failed to complete, compared with just over half of females (Table 6.1). However, there
was great variation in rates of non-completion across individual Institutes (Table 6.5).
Waterford had a non-completion rate as low as 10%, while the figure for Letterkenny
was over 80 percent. In Galway-Mayo and Limerick just under two-thirds of students
failed to complete. In each Institute, a greater percentage of males than of females
failed to complete, with the exception of Letterkenny where the number of females was
very small.

Table 6.5   **Completion Rates For Students Entering Courses accepting All Qualified Applicants, By Gender & Institute of Technology [3]**

Institute of Technology	Number Commencing			Graduating on time (%)			Graduating late (%)			Still attending (%)			Not completing (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Galway-Mayo	101	68	169	18.8	36.8	25.4	11.9	5.9	9.5	0.0	0.0	0.0	69.3	57.3	64.5
Limerick	171	49	220	32.7	38.8	34.1	1.7	4.1	2.3	0.0	0.0	0.0	65.5	57.1	63.6
Letterkenny	34	3	37	20.6	0.0	18.9	0.0	0.0	0.0	0.0	0.0	0.0	79.4	100.0	81.1
Waterford	8	12	20	37.5	66.7	55.0	0.0	0.0	0.0	50.0	25.0	35.0	12.5	8.3	10.0

3 Data from Athlone, Carlow, Cork, Dundalk Sligo, Tallaght & Tralee do not appear in this table as they did not offer this type of course

Non-completion rates in the three Institutes of Technology that offered courses
with restricted entry were varied (Table 6.6). Bearing in mind that numbers entering
these courses were very low, especially in Cork, we may note that non-completion was
most common in Letterkenny. Mirroring this finding, Letterkenny also had the lowest
figure for graduating on time. No students in any of the Institutes either graduated late
or were still in attendance.

Table 6.6   **Completion Rates For Students Entering Restricted Application Courses, By Gender & Institute of Technology [4]**

Institute of Technology	Number Commencing			Graduating on time (%)			Graduating late (%)			Still attending (%)			Not completing (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Cork	1	3	4	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Galway-Mayo	19	3	22	89.5	100.0	90.9	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	9.1
Letterkenny	30	14	44	40.0	35.7	38.6	0.0	0.0	0.0	0.0	0.0	0.0	60.0	64.3	61.4

4 Data from Athlone, Carlow, Dundalk Sligo, Limerick, Tallaght, Tralee & Waterford do not appear in this table as they did not offer this type of course

These findings indicate considerable variation between Institutes of Technology
in the strength of the relationship between entry requirements (Leaving Certificate
Examination points) and rates of non-completion. In Athlone, Carlow, Cork, Dundalk,
Letterkenny, Limerick, Sligo, and Tralee, the relationship was straightforward: courses
with high entry requirements had a higher completion rate than courses with medium or
low entry requirements. For example, in Limerick Institute of Technology, 65.3% of
students in course with high entry points graduated on time and 28.7% left before
completing (Table 6.4). In the case of students in courses with medium points, 57.7%
graduated on time and 39.6% left without obtaining a qualification (Table 6.3). In

courses with relatively low entry requirements, however, 53.8% graduated on time, while 44.9% left without completing (Table 6.2).

In the case of three Institutes (Galway-Mayo, Tallaght, and Waterford), the relationship between entry requirements and graduation rates was not so straightforward. For example, in Galway-Mayo, 58.7% of students entering courses with high points graduated on time and 36.6% left without completing (Table 6.4). The comparable figures for medium points were 38.4% and 54.4%. However, while the percentage of students entering courses with low entry requirements who graduated on time (36.4%) was lower than for other categories of students, the percentage that failed to complete (45.4%) was also lower than for students with medium entry points (Tables 6.2, 6.3). In the case of Tallaght, where no courses with low points were offered, just over half of students entering courses with medium points requirements graduated on time, and 2 out of 5 left without completing (Table 6.3). High entry requirement students did not fare well: just over one third graduated on time and 3 out of 5 did not complete (Table 6.4). In Waterford, students on higher entry points had the lowest non-completion rates (Table 6.4); however, there was no difference in non-completion rates between courses with low and medium entry points (Tables 6.2, 6.3).

Completion Rates for Students Who Repeat First Year

_____

In this section, data are presented for each Institute of Technology as well as for all Institutes combined on the subsequent progress of students who repeated first year. Almost three-fifths of students (59.7%) who chose to repeat actually failed to complete their course. Just under one-third (30.8%) graduated, while approximately one in ten was still attending (Table 7.1).

Some important differences were evident between Institutes in students who graduated late. It ranged from as low as 0% and 5.9% in Letterkenny and Dundalk respectively to 63.6% in Cork. In the other Institutes, the percentage of students graduating late ranged from approximately one-quarter in Carlow and Sligo, to one-third in Althlone, Tallaght and Tralee, to two fifths in Limerick and Galway-Mayo.

Approximately one-quarter of students were still attending their courses in 1998-99 in Waterford and Limerick. Figures were lower in other Institutes: about one-sixth of students in Cork and Sligo, one tenth in Athlone, and a small minority in Carlow, Galway-Mayo, and Dundalk. The remaining Institutes (Letterkenny, Tallaght and Tralee) had no students that were still attending.

The percentage of students who repeated first year, and then failed to complete their course was very high in almost all Institutes, with the exception of Cork (20.4%). In Limerick, one in three of its 'repeat' students left before completion, while, in seven Institutes (Athlone, Carlow, Galway-Mayo, Sligo, Tallaght, Tralee, and Waterford) the proportion of students not completing ranged from over a half to almost three-quarters. Almost all of the students who repeated their course at Dundalk failed to graduate while no repeat student at Letterkenny persisted to completion.

There is some indication that gender was associated with course repetition and subsequent non-completion (Table 7.1). A higher percentage of males than of females

in all but two Institutes (Carlow and Limerick) failed to complete their courses, while there were no gender differences in Letterkenny. In some Institutes, the gender difference was quite substantial; for example, in Sligo over 70% of males failed to complete, compared to only 46.1% of females. Other Institutes which revealed substantial gender differences in completion rates among repeating students were Cork, Galway-Mayo and Tralee.

Whilst the percentage of students graduating late for all Institutes combined showed no gender difference, this was not the case when ITs were examined looked on an individual basis. Once again, the majority of Institutes (Cork, Dundalk, Galway-Mayo, Sligo, Tallaght and Tralee) had more female than male students who graduated late having repeated first year.

The percentage of students who were still attending was quite small and there were few gender differences in evidence across the Institutes. The largest gender difference was in Athlone, but numbers are small.

Table 7.1   **Completion Rates For Students (%) Repeating 1st year in 1996/97, By Gender & Institute of Technology**

Institute of Technology	Number repeating 1st year			Graduating late (%)			Still attending course (%)			Not completing (%)		
	M	F	T	M	F	T	M	F	T	M	F	T
All ITs	355	196	551	30.1	32.1	30.8	9.6	9.2	9.4	60.3	58.7	59.7
Athlone	18	2	20	38.9	0.0	35.0	5.5	50.0	10.0	55.5	50.0	55.0
Carlow	49	37	86	28.6	18.9	24.4	2.0	2.7	2.3	69.4	78.4	73.2
Cork	31	13	44	58.1	76.9	63.6	16.1	15.4	15.9	25.8	7.7	20.4
Dundalk	21	13	34	0.0	15.4	5.9	9.5	0.0	5.9	90.5	84.6	88.2
Galway-Mayo	52	28	80	38.5	53.6	43.7	3.8	3.6	3.7	57.7	42.8	52.5
Letterkenny	7	12	19	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0
Limerick	20	5	25	40.0	40.0	40.0	30.0	20.0	28.0	30.0	40.0	32.0
Sligo	14	13	27	14.3	38.5	25.9	14.3	15.4	14.8	71.4	46.1	59.3
Tallaght	49	20	69	34.7	45.0	37.7	0.0	0.0	0.0	65.3	55.0	62.3
Tralee	32	14	46	28.1	50.0	34.8	0.0	0.0	0.0	71.9	50.0	65.2
Waterford	62	39	101	19.3	15.4	17.8	24.2	25.6	24.7	56.4	59.0	57.4

DESTINATION OF STUDENTS NOT PROGRESSING TO SECOND YEAR IN THE COURSE IN WHICH THEY HAD ENROLLED

_____

Information was obtained on students who did not progress from first to second year in the academic year 1995-96. The decision to limit the collection of information to one year was based on findings that non-progression from one year of a course to the next year in university is most likely to occur at the end of the first year (Educational Research Centre, 1997). It would have been desirable to have obtained similar information for other years, since some students failed to progress from subsequent years. However, the decision to seek information only for students who did not progress to second year was based on difficulties that the Institutes of Technology had in providing the information. In fact, the tracking of students who did not progress normally proved to be quite difficult for some Institutes.

Altogether, 3890 students of the 1995 cohort did not progress immediately into second year (Table 8.1). This represents 34.8% of the total number of entrants (or 38.4% of male entrants and 29.9% of female entrants). Of these, only 551 students (or 14.2%) repeated the course the following year. The percentage that failed their examinations and withdrew (44.4%) was three times greater. The fact that that this category accounts for over two fifths of the students who did not progress would seem to reflect a belief that students could not pass their examinations the following year and therefore not expect to graduate at a later stage. Over one-third of students (34.3%) withdrew from the Institute before sitting first year examinations. The two categories 'did not sit first year exams, withdrew' and 'failed first year exams, withdrew' together account for almost four-fifths (78.7%) of non-progressing students.

Just under 3% of students who did not progress to second year had actually passed their examinations. It is entirely possible that some of these changed institutions

and completed another course; however, information was not available on students registering at other institutions. Almost 4% of non-progressing students registered for a different course in the same Institute.

Overall, it would seem that the majority of students who did not progress from first to second year did not persist with their course and chose to withdraw either before sitting examinations or as a consequence of failing examinations. Students who failed exams and chose to re-enrol to repeat the course the following year were in a minority. The destiny of students not progressing to second year on time revealed few differences in gender. However, male students were slightly more likely to fail first year examinations and withdraw. All in all, we can firmly say that a substantial percentage (61.4%) of all students entering first year in 1995 actually sat their examinations, a figure that might be higher if we knew for certain whether or not students in the category 'registered at a different course' actually sat first year exams.

Table 8.1   Destination Of Students In All Institutes of Technology Not Progressing To Second Year In 1996/97

	Males		Females		Total	
Option	N	%	N	%	N	%
Failed 1st year exams, repeated same course	355	14.3	196	13.9	551	14.2
Did not sit 1st year exams, withdrew	836	33.7	500	35.4	1336	34.3
Passed 1st year exams, withdrew	55	2.2	56	4.0	111	2.8
Failed 1st year exams, withdrew	1136	45.8	591	41.9	1727	44.4
Registered at a different course (same institute)	87	3.5	64	4.5	151	3.9
Destination unknown	10	0.4	4	0.3	14	0.4
Students not progressing to 2nd year	2479	100.0	1411	100.0	3890	100.0

Destination Of Students Not Progressing To Second Year, By Individual Institute Of Technology

Athlone IT

Just over half of all students who did not progress to second year at Athlone IT had failed first year exams and withdrew (Table 8.2). The gender difference was substantial: more than half of males (55.0%), but only two-fifths of females (40.6%) failed exams and withdrew. Very few students (6.8%) who failed their exams opted to

repeat their course; however, males were much more likely than females to do so. Even more striking was the finding that students were seven times more likely to leave the Institute after failing exams than to repeat the course the following year. Of the remaining students, just over one-third (35.0%) did not sit exams and withdrew; again, gender differences were in evidence. A much higher percentage of females (44.8%) than of males (30.3%) withdrew before sitting examinations. More women than men passed exams and registered at a different course in the same Institute.

Table 8.2   Destination Of Students In Athlone IT Not Progressing
**   To Second Year In 1996/97**

	Males		Females		Total	
Option	N	%	N	%	N	%
Failed 1st year exams, repeated same course	18	9.1	2	2.1	20	6.8
Did not sit 1st year exams, withdrew	60	30.3	43	44.8	103	35.0
Passed 1st year exams, withdrew	2	1.0	5	5.2	7	2.4
Failed 1st year exams, withdrew	109	55.0	39	40.6	148	50.3
Registered at a different course (same institute)	9	4.6	7	7.3	16	5.4
Destination unknown	0	0.0	0	0.0	0	0.0
Students not progressing to 2nd year	198	100.0	96	100.0	294	100.0

IT Carlow

Almost three-fifths of all students at IT Carlow who did not progress to second year had failed their exams and withdrew, compared to one-fifth who failed and repeated (Table 8.3). While the percentage of males (61.7%) who failed and withdrew was higher than the percentage of females (49.6%), the opposite was true of those who failed and repeated. Over a quarter of all females repeated their course, compared to 17.9% of males. Over one in ten students did not sit exams and withdrew. Only one student passed exams and withdrew while a sizeable minority (7.3%) registered at a different course.

**Table 8.3	Destination Of students In IT Carlow Not Progressing To Second Year In 1996/97**

	Males		Females		Total	
Option	N	%	N	%	N	%
Failed 1st year exams, repeated same course	49	17.9	37	27.0	86	20.9
Did not sit 1st year exams, withdrew	36	13.1	20	14.6	56	13.6
Passed 1st year exams, withdrew	0	0.0	1	0.7	1	0.2
Failed 1st year exams, withdrew	169	61.7	68	49.6	237	57.7
Registered at a different course (same institute)	19	6.9	11	8.0	30	7.3
Destination unknown	1	0.4	0	0.0	1	0.2
Students not progressing to 2nd year	274	100.0	137	100.0	411	100.0

Cork IT

Approximately the same percentage of students not progressing to second year in Cork IT had failed exams and withdrew (41.3%) and withdrew without sitting exams (39.2%). This was almost four times greater than the percentage that failed first year examinations and repeated the same course, where only one in ten students returned the following year to repeat the course. While the percentages of males and females who repeated first year were similar, the same is not true for those who registered at a different course as more females than males did so. Slightly more women than men passed exams and withdrew.

**Table 8.4	Destination Of Students In Cork IT Not Progressing To Second Year In 1996/97**

	Males		Females		Total	
Option	N	%	N	%	N	%
Failed 1st year exams, repeated same course	31	11.8	13	9.8	44	11.1
Did not sit 1st year exams, withdrew	106	40.3	49	37.1	155	39.2
Passed 1st year exams, withdrew	10	3.8	7	5.3	17	4.3
Failed 1st year exams, withdrew	110	41.8	53	40.1	163	41.3
Registered at a different course (same institute)	5	1.9	9	6.8	14	3.5
Destination unknown	1	0.4	1	0.8	2	0.5
Students not progressing to 2nd year	263	100.0	132	100.0	395	100.0

Dundalk IT

Over half (52.5%) of students not progressing to second year in Dundalk IT had failed exams and chose to leave. Over one-third (36.9%) did not sit exams and withdrew. The two categories 'failed first year exams, withdrew' and 'did not sit first year exams, withdrew' together account for almost 90% of non-progressing students. Of the remaining students, fewer than one in ten returned to repeat the same course the following year. Small numbers passed first year exams and withdrew (0.7%) and registered at a different course (0.5%). Gender differences were not in evidence.

**Table 8.5   Destination Of Students In Dundalk IT Not Progressing To
              Second Year In 1996/97**

	Males		Females		Total	
Option	N	%	N	%	N	%
Failed 1st year exams, repeated same course	21	8.1	13	8.3	34	8.1
Did not sit 1st year exams, withdrew	95	36.5	59	37.6	154	36.9
Passed 1st year exams, withdrew	2	0.8	1	0.6	3	0.7
Failed 1st year exams, withdrew	136	52.3	83	52.9	219	52.5
Registered at a different course (same institute)	1	0.4	1	0.6	2	0.5
Destination unknown	5	1.9	0	0.0	5	1.2
Students not progressing to 2nd year	260	100.0	157	100.0	417	100.0

Galway-Mayo IT

Just over two-fifths of non-progressing students at Galway-Mayo IT chose to leave before sitting their first year exams. A higher percentage of females (45.4%) than of males (38.9%) made this choice. Almost a quarter of all students failed first year and withdrew (27.7% of males and 20.8% of females). Very few students (13.9%) repeated the same course. Exactly the same percentage of females (10.4%) passed first year exams and withdrew as registered at a different course.

**Table 8.6   Destination Of Students In Galway-Mayo IT Not Progressing
                 To Second Year In 1996/97**

Option	Males		Females		Total	
	N	%	N	%	N	%
Failed 1st year exams, repeated same course	52	15.2	28	12.1	80	13.9
Did not sit 1st year exams, withdrew	133	38.9	105	45.4	238	41.5
Passed 1st year exams, withdrew	24	7.0	24	10.4	48	8.4
Failed 1st year exams, withdrew	93	27.2	48	20.8	141	24.6
Registered at a different course (same institute)	37	10.8	24	10.4	61	10.6
Destination unknown	3	0.9	2	0.9	5	0.9
Students not progressing to 2nd year	342	100.0	231	100.0	573	100.0

Letterkenny IT

Almost half (48.7%) of students not progressing to second year at Letterkenny IT did not sit their exams and left. A higher percentage of males (53.8%) than of females (43.3%) chose this direction. The two categories 'failed first year exams, withdrew' and 'failed first year exams, repeated same course together account for the remaining half (49.4%) of non-progressing students. Of the number that failed examinations, however, only 6.8% returned to repeat the course, compared with 42.6% who decided to leave the Institute. No students registered at a different course, and very few passed first year exams and withdrew (1.8%).

**Table 8.7   Destination Of Students In Letterkenny IT Not Progressing
                 To Second Year In 1996/97**

Option	Males		Females		Total	
	N	%	N	%	N	%
Failed 1st year exams, repeated same course	7	4.8	12	8.9	19	6.8
Did not sit 1st year exams, withdrew	78	53.8	58	43.3	136	48.7
Passed 1st year exams, withdrew	1	0.7	4	2.9	5	1.8
Failed 1st year exams, withdrew	59	40.7	60	44.8	119	42.6
Registered at a different course (same institute)	0	0.0	0	0.0	0	0.0
Destination unknown	0	0.0	0	0.0	0	0.0
Students not progressing to 2nd year	145	100.0	134	100.0	279	100.0

Limerick IT

Almost half (46.0%) of students not progressing to second year in Limerick IT left after failing examinations (Table 8.8). Gender differences were in evidence, as slightly more females (49.9%) than males (44.7%) withdrew after failing exams. Of the remaining students, two in five (40.9%) did not sit exams at all. Very few students who passed first year exams withdrew (2.2%). Another very small group of students, accounting for just 2.9% of non-progressing students, 'registered at a different course'. Fewer than one in ten students (7.9%) repeated the same course the following year.

**Table 8.8   Destination Of Students In Limerick IT Not Progressing
                  To Second Year In 1996/97**

Option	Males		Females		Total	
	N	%	N	%	N	%
Failed 1st year exams, repeated same course	20	8.8	5	5.7	25	7.9
Did not sit 1st year exams, withdrew	95	42.0	33	37.9	128	40.9
Passed 1st year exams, withdrew	4	1.8	3	3.4	7	2.2
Failed 1st year exams, withdrew	101	44.7	43	49.4	144	46.0
Registered at a different course (same institute)	6	2.6	3	3.4	9	2.9
Destination unknown	0	0.0	0	0.0	0	0.0
Students not progressing to 2nd year	226	100.0	87	100.0	313	100.0

At Sligo IT

Over two-thirds (68.7%) of students at Sligo IT who did not progress to second year had failed exams and withdrew, compared to just 10% who failed and returned to repeat the course (Table 8.9). Gender differences were striking, with almost three-quarters of males compared to three-fifths of females failing exams and withdrawing. One in five students chose to leave the Institute before sitting exams. Again, gender differences were in evidence: almost a quarter of females who did not progress to second year did not sit exams, compared to 17.9% of males. No students passed exams before withdrawing, and only one female registered at a different course.

Table 8.9   Destination Of students In IT Sligo Not Progressing To Second Year In 1996/97

	Males		Females		Total	
Option	N	%	N	%	N	%
Failed 1st year exams, repeated same course	14	8.6	13	12.3	27	10.1
Did not sit 1st year exams, withdrew	29	17.9	26	24.5	55	20.5
Passed 1st year exams, withdrew	0	0.0	0	0.0	0	0.0
Failed 1st year exams, withdrew	119	73.5	65	61.3	184	68.7
Registered at a different course (same institute)	0	0.0	1	0.9	1	0.4
Destination unknown	0	0.0	1	0.9	1	0.4
Students not progressing to 2nd year	162	100.0	106	100.0	268	100.0

IT Tallaght

More than one-third (36.9%) of all non-progressing students at IT Tallaght did not sit first year exams and withdrew. A similar proportion (one third) failed first year exams and withdrew (Table 8.10). Quite a substantial number of students, one in four, chose to return and repeat their course the following year after failing exams. Gender differences were not in evidence. Very few students either left their course after passing their exams (2.9%) or registered at a different course (2.1%).

Table 8.10   Destination Of Students In IT Tallaght Not Progressing To Second Year In 1996/97

	Males		Females		Total	
Option	N	%	N	%	N	%
Failed 1st year exams, repeated same course	49	25.6	20	22.7	69	24.7
Did not sit 1st year exams, withdrew	70	36.6	33	37.5	103	36.9
Passed 1st year exams, withdrew	4	2.1	4	4.5	8	2.9
Failed 1st year exams, withdrew	64	33.5	29	32.9	93	33.3
Registered at a different course (same institute)	4	2.1	2	2.3	6	2.1
Destination unknown	0	0.0	0	0.0	0	0.0
Students not progressing to 2nd year	191	100.0	88	100.0	279	100.0

IT Tralee

Exactly the same percentage (40.6%) of non-progressing male and female students at IT Tralee had failed first year and withdrew (Table 8.11). Of the remaining

students, almost the same percentage (38.4%) withdrew without sitting exams. The two categories 'did not sit first year exams, withdrew' and 'failed first year exams, withdrew' together account for the destination of four in five non-progressing students. Of the students that did not progress to second year, only 14.8% failed exams and repeated the same course. However, gender differences were in evidence with approximately one-tenth of female students choosing this option, compared with one-sixth of males. Students were almost three times more likely to withdraw after failing their exams than to return to repeat the following year. A very small percentage (2.6%) withdrew after passing their exams.

Table 8.11   **Destination Of Students In IT Tralee Not Progressing To Second Year In 1996/97**

Option	Males		Females		Total	
	N	%	N	%	N	%
Failed 1st year exams, repeated same course	32	17.1	14	11.4	46	14.8
Did not sit 1st year exams, withdrew	70	37.4	49	39.8	119	38.4
Passed 1st year exams, withdrew	4	2.1	4	3.2	8	2.6
Failed 1st year exams, withdrew	76	40.6	50	40.6	126	40.6
Registered at a different course (same institute)	5	2.7	6	4.9	11	3.5
Destination unknown	0	0.0	0	0.0	0	0.0
Students not progressing to 2nd year	187	100.0	123	100.0	310	100.0

Waterford IT

Just over two fifths (43.6%) of students not progressing to second year at Waterford IT had failed and withdrew. Of the remaining students, approximately the same percentage did not sit their exams and withdrew (25.4%) and failed their exams but went back to repeat their course (28.8%). Gender differences were apparent. For example, one in five females did not sit their exams compared to over one quarter of males. Female students (32.5%) were more likely than male students (26.8%) to return to repeat their course the next year. Just 2% of students who did not progress to second year had actually passed their examinations. Only one student registered at a different course.

Table 8.12   Destination Of Students In Waterford IT Not Progressing To Second Year In 1996/97

	Males		Females		Total	
Option	N	%	N	%	N	%
Failed 1st year exams, repeated same course	62	26.8	39	32.5	101	28.8
Did not sit 1st year exams, withdrew	64	27.7	25	20.8	89	25.4
Passed 1st year exams, withdrew	4	1.7	3	2.5	7	2.0
Failed 1st year exams, withdrew	100	43.3	53	44.2	153	43.6
Registered at a different course (same institute)	1	0.4	0	0.0	1	0.3
Destination unknown	0	0.0	0	0.0	0	0.0
Students not progressing to 2nd year	231	100.0	120	100.0	351	100.0

Overview Of Findings Regarding The Destination Of Students Not Progressing To Second Year

The largest percentage of students who did not progress to second year had failed their first year examinations and chose to withdraw in all but three Institutes (Galway-Mayo, Letterkenny and Tallaght). Overall, 44.4% of students chose this option (Table 8.13). Having said that, there were some important differences between Institutes. For example, those who failed exams and withdrew ranged from as few as one quarter of the students in Galway-Mayo to over two-thirds in Sligo. One-third of all non-progressing Tallaght students, approximately two-fifths of students in Cork, Letterkenny, Tralee and Waterford, and roughly half of students in Athlone, Dundalk and Limerick withdrew after failing their exams. In Carlow, the corresponding figure was 57.7%.

The next largest category of non-progressing students withdrew before sitting first year examinations. Overall, just over one third (34.4%) of students followed this path. Looking at each individual Institute, the percentage of students withdrawing before sitting exams ranged from as little as 13.6% in Carlow to almost half of all students in Letterkenny. Of the remaining Institutes, one-fifth of non-progressing students in Sligo, a quarter in Waterford and over one-third in Tallaght, Athlone and

Dundalk withdrew before sitting exams. In Cork, Galway-Mayo, Limerick and Tralee about two in five students left before sitting examinations.

Across all Institutes of Technology, one-seventh (14.2%) of students who did not progress had failed exams and returned to repeat the course the following year. However, the figure for Waterford was more than a quarter (28.8%); at the other end of the spectrum, the comparable figures for Athlone, Letterkenny, Limerick and Dundalk were 6.8%, 6.8%, 7.9% and 8.1% respectively. Approximately one in ten students repeated the same course in Cork and Sligo.

Very few students (2.8%) having passed first year exams, then withdrew. However, figures for Institutes ranged from 0% in Sligo to 8.4% in Galway-Mayo. Students registering at a different course accounted for only a small minority of those not progressing into second year. Again, there were some differences across Institutes. In Galway-Mayo, 10.6% of those not progressing registered at a different course, while at the other extreme, in Letterkenny, no student did so.

Table 8.13   Destination Of All Students (%) Not Progressing To Second Year In 1996/97, By Institute Of Technology

	All ITs	Athlone	Carlow	Cork	Dundalk	Galway	L.kenny	Limerick	Sligo	Tallaght	Tralee	W.ford
Failed 1st year exams, repeated same course	14.2	6.8	20.9	11.1	8.1	13.9	6.8	7.9	10.1	24.7	14.8	28.8
Did not sit 1st year exams, withdrew	34.3	35.0	13.6	39.2	36.9	41.5	48.7	40.9	20.5	36.9	38.4	25.4
Passed 1st year exams, withdrew	2.8	2.4	0.2	4.3	0.7	8.4	1.8	2.2	0.0	2.9	2.6	2.0
Failed 1st year exams, withdrew	44.4	50.3	57.7	41.3	52.5	24.6	42.6	46.0	68.7	33.3	40.6	43.6
Registered at a different course (same institute)	3.9	5.4	7.3	3.5	0.5	10.6	0.0	2.9	0.4	2.1	3.5	0.3
Destination unknown	0.4	0.0	0.2	0.5	1.2	0.9	0.0	0.0	0.4	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

9
CONCLUSIONS

_____

The conclusions outlined below are drawn in the context of the present report being an interim one, which is reporting on the first phase of research on retention in Institutes of Technology. The second phase of the research will address the factors associated with retention among a sample of students entering ITs for the first time in Autumn 2000.

The first conclusion is that there is a major problem of non-completion in the IT sector. Obviously, the fact that there has been so little work in this area in the past precludes comparisons. Furthermore, there are major difficulties with comparisons with other countries, since as noted in Chapter 2, sources of possible comparison, further education in the UK and two-year colleges in the US, are quite different in nature from ITs in Ireland when looked at more closely. Nevertheless, by any standard, the overall rate of non-completion seems very high.

Secondly, while the overall rate non-completion is high, there are major differences between Institutes in rates of completion. It was not within the scope of the present phase to say anything about the cause of this other than to note that these differences are large. This is an important matter since it has effects on students, staff and on efforts to improve teaching and learning.

A third major conclusion is that there are major differences with regard to areas of study. In the broadest terms, areas that involve Mathematics, Science, Engineering, and Technology have much higher rates of non-completion than other areas. While there is some evidence that this happens in courses in other countries, the extent of the difference in Irish institutions is quite remarkable. This outcome has important implications not only for the individuals on these courses and for the Institutes but also for the economy given the extent to which industry relies on skills developed in these areas.

A fourth major conclusion is that, in terms of completion, females do much better than males in ITs. As noted in Chapter 2, several studies have found that females are more likely to enter higher education and are somewhat more likely to graduate. However, these differences have usually been in the region of 1 to 2%. In the present study, the overall differences were much larger.

A fifth conclusion is that while there were differences between ITs, between fields of study, as well as gender differences, the interaction between these was very striking. In other words, the completion rates in a field of study often depended on the Institute involved. Even more complex is fact that gender differences were influenced by both the field of study and the particular IT. These interactions demonstrate the need for detailed further study of non-completion rates taking into account these complex interactions.

A sixth conclusion is that while examination failure is an important influence in non-completion, lack of persistence is also important. This is illustrated in the very small number who repeat examinations successfully.

It would not be appropriate to make policy recommendations at this stage in the research. Thus, the recommendations set out below relate more to the need for further research, information and debate. As noted above, the project plan for the present study envisages a study of the experiences of staff and students beginning in Autumn 2000.

1. Basic to any research is regular and systematic collection of data on student progress in Institutes. Unfortunately at the moment there are significant inconsistencies in the ways in which different Institutes record student retention and non-completion data. We recommend that there be a common system of monitoring of progress through ITs so that the data reported here are gathered routinely by individual Institutes. To achieve an accurate picture of current patterns of completion and withdrawal would require institutions to establish a computerised student data base.

2. The amount of research in third level education in Ireland is modest by any standards, even compared with primary and secondary education. Such research is

largely confined to issues to do with access. We recommend that there be a major programme of research relating to the learning experiences of students in this sector.

3. We recommend that the particular attention to given to the reasons for non-completion of students in Science, Engineering, and Computing. Attention should also be given to how learning experiences in ITs relate to learning in primary and post-primary schools.

4. There is a need for an examination of students' knowledge of requirements of courses on which they embark in the year in which they apply.

5. There is a need for further study of students who have achieved some success in examinations and progressed to their final year, but who do not complete their studies.

6. The social and economic conditions of students requires study, with particular reference to part-time employment and family support.

REFERENCES

_____

Chaney, B., & Farris, E. (1991). *Survey on retention at higher education institutions.* Higher Education Surveys Report, Survey Number 14. A report written for Planning and Evaluation Service, Office of the Undersecretary, U.S. Department of Education.

Eagle, E., & Carroll, C.D. (1988). *Postsecondary enrollment, persistence, and attainment for 1972, 1980, and 1982 high school graduates.* National Center for Educational Statistics, Report CS 89-301. Washington, D.C.: U.S. Government Printing Office.

Educational Research Centre. (1997). *An investigation of factors associated with non-completion of university courses*. Dublin: Author.

Further Education Funding Council (1999). *Benchmarking Data 1995-96 to 1997-98. Retention and achievement rates in further education colleges in England.* Coventry: Further Education Funding Council.

Healy, M., Carpenter, A., & Lynch, K. (1999). *Non-completion in higher education: A study of first year students in three Institutes of Technology.* Carlow/Dundalk/Tralee: *IT Carlow, Dundalk IT., IT Tralee.*

McIver Consulting (1996). *Regional Technical College sector: Baseline study.* Dublin: Author.

Moran, M.A., & Crowlwy, M.J. (1978/9). The Leaving Certificate and first year University performance. *Journal of the Statistical and Social Inquiry Society of Ireland, 29*(1), 231-266.

Ozga, J., & Sukhnandan, L. (1997). *Undergraduate non-completion in higher education in England: Report 2*. Higher Education Funding Council of England, Research Series 29. Bristol: Higher Education Funding Council of England.

Springer, L., Stanne, M.E., & Donovan, S.E. (1999). *Effects of small-group learning on undergraduates in science, mathematics, engineering and technology*. Review of Educational Research, 69, 21-51.

Tinto, V. (1993) *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed). Chicago: University of Chicago Press.

York, M. (1997). *Undergraduate non-completion in England: Report 2,* Higher Education Funding Council of England, Research Series 29.

FORMS USED BY INSTITUTES OF TECHNOLOGY TO LIST COMPLETION RATES FOR EACH COURSE

TABLE A1

Course: National Certificate in

	1995/96		1996/97		1997/98	
	M	F				
Number of first-time entrants						
			M	F	M	F
Of whom progressed to 2nd year						
Of those students who did not progress to 2nd year in 1996/97, how many…….						
			M	F	M	F
Repeated 1st year (same course)						
					M	F
Of whom progressed to 2nd year						
	M	F				
Did not sit 1st year exams & withdrew						
	M	F				
Passed 1st year & withdrew from institution						
	M	F				
Failed 1st year & withdrew from institution						
	M	F				
Registered at a different course (same institution)						

In the case of numbers in the final year of each course, please indicate in brackets, the number of graduands.

TABLE A2

Course: National Diploma in

	1995/96		1996/97		1997/98		1998/99	
Number of first-time entrants	M	F						
Of whom progressed to 2nd year			M	F	M	F		
Of whom progressed to 3rd year					M	F	M	F
Of those students who did not progress to 2nd year in 1996/97, how many…..								
Repeated 1st year (same course)			M	F				
Of whom progressed to 2nd year					M	F	M	F
Of whom progressed to 3rd year							M	F
Did not sit 1st year exams & withdrew	M	F						
Passed 1st year & withdrew from institution	M	F						
Failed 1st year & withdrew from institution	M	F						
Registered at a different course (same institution)	M	F						

In the case of numbers in the final year of each course, please indicate in brackets, the number of graduands.

TABLE A3

Course: Bachelor of

	1995/96		1996/97		1997/98		1998/99	
	M	F						
Number of first-time entrants								
			M	F	M	F		
Of whom progressed to 2nd year								
					M	F	M	F
Of whom progressed to 3rd year								
							M	F
Of whom progressed to 4th year								
Of those students who did not progress to 2nd year in 1996/97, how many…..								
			M	F	M	F		
Repeated 1st year (same course)								
					M	F	M	F
Of whom progressed to 2nd year								
							M	F
Of whom progressed 3rd year								
	M	F						
Did not sit 1st year exams & withdrew								
	M	F						
Passed 1st year, withdrew from institution								
	M	F						
Failed 1st year, withdrew from institution								
	M	F						
Registered at a different course (same institution)								

TABLE B1

Completion Rates For Students Entering Courses with 75-150 Cut-off Points, By Gender & Institute of Technology [1]

Institute of Technology	1st time entrants			Graduating on time			Graduating late			Still attending course			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs (25)	859	267	1126	37.1	48.7	39.9	3.8	2.6	3.5	0.1	0.0	0.1	58.9	48.7	56.5
Athlone (3)	108	7	115	38.9	42.9	39.1	4.6	0.0	4.3	0.0	0.0	0.0	56.5	57.1	56.5
Carlow (3)	233	126	359	38.6	57.1	45.1	6.4	3.2	5.3	0.0	0.0	0.0	54.9	39.7	49.6
Dundalk (3)	113	20	133	28.3	5.0	24.8	2.6	0.0	2.2	0.0	0.0	0.0	69.0	95.0	72.9
Galway-Mayo (1)	33	11	44	36.4	36.4	36.4	18.2	18.2	18.2	0.0	0.0	0.0	45.4	45.4	45.4
Letterkenny (7)	139	73	212	33.8	52.0	40.1	0.7	1.4	0.9	0.0	0.0	0.0	65.5	46.6	59.0
Sligo (4)	108	7	115	34.2	42.9	34.8	0.9	0.0	0.9	0.9	0.0	0.9	63.9	57.1	63.5
Tralee (4)	125	23	148	47.2	39.1	45.9	1.6	0.0	1.3	0.0	0.0	0.0	51.2	60.9	52.7

1 Data from Cork, Limerick, Tallaght & Waterford do not appear in this table as they did not offer any courses with 75-150 points

TABLE B2

Completion Rates For Students Entering Courses with 155-200 Cut-off Points, By Gender & Institute of Technology [2]

Institute of Technology	1st time entrants			Graduating on time			Graduating late			Still attending course			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs (41)	1267	979	2246	40.7	46.4	43.2	3.5	3.3	3.4	0.2	0.0	0.1	55.6	50.3	53.3
Athlone (4)	150	148	298	34.0	49.3	41.6	2.0	2.7	2.3	0.0	0.0	0.0	64.0	48.0	56.0
Carlow (8)	228	141	369	36.8	50.3	42.0	3.5	2.8	3.2	0.0	0.0	0.0	59.6	46.8	54.7
Dundalk (7)	384	300	684	39.3	35.7	37.7	4.7	5.3	5.0	0.5	0.0	0.3	55.5	59.0	57.0
Letterkenny (5)	72	135	207	33.3	36.3	35.3	4.2	0.7	1.9	0.0	0.0	0.0	62.5	63.0	62.8
Limerick (4)	105	53	158	49.5	62.3	53.8	0.9	1.9	1.3	0.0	0.0	0.0	49.5	35.8	44.9
Sligo (7)	161	178	339	49.1	62.9	56.3	0.0	1.7	0.9	0.0	0.0	0.0	50.9	35.4	42.8
Tralee (4)	110	18	128	43.6	27.8	41.4	3.6	16.7	5.5	0.0	0.0	0.0	52.7	55.5	53.1
Waterford (2)	57	6	63	47.4	66.7	49.2	12.3	0.0	11.1	0.0	0.0	0.0	40.3	33.3	39.7

2 Data from Cork, Galway-Mayo & Tallaght do not appear in this table as they did not offer any courses with 155-200 points

TABLE B3

Completion Rates For Students Entering Courses with 205-250 Cut-off Points, By Gender & Institute of Technology [3]

Institute of Technology	1st time entrants			Graduating on time			Graduating late			Still attending course			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs (40)	1493	866	2359	48.2	58.0	51.8	4.5	3.9	4.3	0.5	0.6	0.5	46.7	37.5	43.3
Athlone (4)	175	141	316	53.1	73.0	62.0	1.7	4.2	2.8	0.0	0.7	0.3	45.1	22.0	34.8
Carlow (6)	139	109	248	51.8	50.4	51.2	2.9	3.7	3.2	0.0	0.0	0.0	45.3	45.9	45.6
Cork (5)	272	23	295	46.7	47.8	46.8	4.4	8.7	4.7	2.9	0.0	2.7	45.9	43.5	45.8
Galway-Mayo (3)	141	28	169	33.3	17.8	31.0	9.2	3.6	8.3	0.0	0.0	0.0	57.4	78.6	61.2
Letterkenny (1)	1	2	3	100.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	66.7
Limerick (3)	171	89	260	61.4	50.6	57.7	4.1	0.0	2.7	0.0	0.0	0.0	34.5	49.4	39.6
Sligo (6)	99	132	231	40.4	59.1	51.1	3.0	1.5	2.2	0.0	0.7	0.4	56.6	38.6	46.3
Tallaght (2)	170	10	180	42.9	80.0	45.0	1.8	0.0	1.7	0.0	0.0	0.0	55.3	20.0	53.3
Tralee (6)	218	287	505	51.8	64.1	58.8	6.4	4.9	5.5	0.0	0.0	0.0	41.7	31.0	35.6
Waterford (4)	107	45	152	45.8	28.9	40.8	8.4	11.1	9.2	0.0	6.7	2.0	45.8	53.3	48.0

3 Data from Dundalk do not appear in this table as they did not offer any courses with 205-250 points

TABLE B4

Completion Rates For Students Entering Courses with 255-300 Cut-off Points, By Gender & Institute of Technology [4]

Institute of Technology	1st time entrants			Graduating on time			Graduating late			Still attending course			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs (31)	1114	912	2026	53.7	63.4	58.0	5.3	4.5	4.9	1.1	0.2	0.7	39.4	31.9	36.3
Athlone (2)	17	22	39	23.5	68.2	48.7	0.0	0.0	0.0	0.0	0.0	0.0	76.5	31.8	51.3
Carlow (1)	28	17	45	67.9	70.6	68.9	0.0	0.0	0.0	7.1	5.9	6.7	25.0	23.5	24.4
Cork (8)	288	99	387	59.4	64.6	60.7	3.8	6.1	4.4	1.0	0.0	0.8	35.8	29.3	34.1
Dundalk (1)	15	14	29	66.7	100.0	82.8	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	17.2
Galway-Mayo (6)	192	249	441	51.0	66.7	59.9	7.8	4.8	6.1	0.0	0.0	0.0	41.1	28.5	34.0
Letterkenny (1)	23	52	75	60.9	48.1	52.0	0.0	0.0	0.0	0.0	0.0	0.0	39.1	51.9	48.0
Sligo (1)	4	18	22	25.0	88.9	77.3	0.0	0.0	0.0	50.0	5.5	13.6	25.0	5.5	9.1
Tallaght (3)	267	253	520	49.1	54.5	51.7	6.4	3.9	5.2	0.0	0.0	0.0	44.5	41.5	43.1
Waterford (8)	280	188	468	53.6	68.1	59.4	5.7	6.9	6.2	1.8	0.0	1.1	38.9	25.0	33.3

4 Data from Limerick & Tralee do not appear in this table as they did not offer any courses with 255-300 points

TABLE B5

Completion Rates For Students Entering Courses with 305-350 Cut-off Points, By Gender & Institute of Technology [5]

Institute of Technology	1st time entrants			Graduating on time			Graduating late			Still attending course			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs (33)	985	955	1940	56.7	64.4	60.5	1.9	3.4	2.7	7.8	1.9	4.9	33.5	30.3	31.9
Athlone (2)	24	73	97	79.2	75.3	76.3	0.0	1.4	1.0	0.0	0.0	0.0	20.8	23.3	22.7
Cork (7)	262	209	471	46.9	68.4	56.5	1.9	1.4	1.7	16.8	3.3	10.8	34.3	26.8	31.0
Galway-Mayo (8)	294	269	563	56.1	60.2	58.1	3.1	5.9	4.4	2.0	0.4	1.2	38.8	33.4	36.2
Limerick (4)	126	24	150	67.5	54.2	65.3	0.0	0.0	0.0	6.3	4.2	6.0	26.2	41.7	28.7
Sligo (3)	29	114	143	69.0	69.3	69.2	0.0	1.7	1.4	0.0	0.0	0.0	31.0	28.9	29.4
Tralee (1)	39	56	95	74.3	73.2	73.7	2.6	7.1	5.3	0.0	0.0	0.0	23.1	19.6	21.0
Waterford (8)	211	210	421	55.9	58.1	57.0	1.9	3.3	2.6	9.0	4.3	6.6	33.2	34.3	33.7

5 Data from Carlow, Dundalk, Letterkenny & Tallaght do not appear in this table as they did not offer any courses with 305-350 points

TABLE B6

Completion Rates For Students Entering Courses with 355-525 Cut-off Points, By Gender & Institute of Technology [6]

Institute of Technology	1st time entrants			Graduating on time			Graduating late			Still attending course			Not completing course		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
All ITs (17)	350	528	878	58.9	75.9	69.1	1.1	1.9	1.6	11.1	2.6	6.0	28.8	19.5	23.2
Athlone (1)	13	26	39	38.5	50.0	46.1	0.0	0.0	0.0	15.4	3.8	7.7	46.1	46.1	46.1
Carlow (1)	10	52	62	100.0	90.4	91.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	8.1
Cork (7)	100	204	304	52.0	81.4	71.7	4.0	3.9	3.9	18.0	0.5	6.2	26.0	14.2	18.1
Galway-Mayo (1)	31	66	97	45.2	68.2	60.8	0.0	0.0	0.0	6.4	1.5	3.1	48.4	30.3	36.1
Sligo (3)	47	49	96	59.6	63.3	61.4	0.0	4.1	2.1	6.4	8.2	7.3	34.0	24.5	29.2
Tralee (1)	2	8	10	50.0	75.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	25.0	30.0
Waterford (3)	147	123	270	65.3	75.6	70.0	0.0	0.0	0.0	9.5	5.7	7.8	25.2	18.7	22.2

6 Data from Dundalk, Letterkenny, Limerick & Tallaght do not appear in this table as they did not offer any courses with 355-525 points

DATA ON NUMBERS OF STUDENTS AND PERCENTAGES COMPLETING ON TIME, COMPLETING FOLLOWING REPETITION, STILL ATTENDING, AND NOT COMPLETING FOR THE ELEVEN INSTITUTES OF TECHNOLOGY.

TABLE C1

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Athlone Institute Of Technology

Athlone Institute of Technology	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies	115	90	205	55.7	67.8	61.0	1.7	6.7	3.9	0.0	0.0	0.0	42.6	25.5	35.1
Nat. Cert. in Front Office Administration	1	26	27	100.0	88.5	88.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	11.1
Nat. Cert. in Office Information Systems	3	62	65	0.0	62.9	60.0	0.0	6.5	6.2	0.0	0.0	0.0	100.0	30.6	33.8
Nat. Cert. in Applied Social Studies (Social Care)	9	47	56	100.0	83.0	85.7	0.0	2.1	1.8	0.0	0.0	0.0	0.0	14.9	12.5
Nat. Cert. in Hotel & Catering Supervision	5	21	26	80.0	71.4	73.1	0.0	0.0	0.0	0.0	0.0	0.0	20.0	28.6	26.9
Nat. Cert. in Engineering (Electronics)	48	-	48	33.3	-	33.3	4.2	-	4.2	0.0	-	0.0	62.5	-	62.5
Nat. Cert. in Engineering (Plastics)	44	-	44	47.7	-	47.7	6.8	-	6.8	0.0	-	0.0	45.5	-	45.5
Nat. Cert. in Engineering (Mechanical)	53	1	54	37.7	0.0	37.0	1.9	0.0	1.9	0.0	0.0	0.0	60.4	100.0	61.1
Nat. Cert. in Engineering (Civil)	39	5	44	41.0	60.0	43.2	2.6	0.0	2.3	0.0	0.0	0.0	56.4	40.0	54.5
Nat. Cert. in Construction Studies	60	3	63	38.3	33.3	38.1	1.7	0.0	1.6	0.0	0.0	0.0	60.0	66.7	60.3
Nat. Cert. in Science	34	82	116	23.5	40.2	35.3	2.9	0.0	0.9	0.0	0.0	0.0	73.5	59.8	63.8
Nat. Dip. in Professional Accounting	20	20	40	60.0	80.0	70.0	0.0	0.0	0.0	0.0	5.0	2.5	40.0	15.0	27.5
Nat. Dip. in Design Communications	13	26	39	38.5	50.0	46.2	0.0	0.0	0.0	15.4	3.8	7.7	46.2	46.2	46.2
Nat. Dip. in Hotel & Catering Management	15	26	41	66.7	61.5	63.4	0.0	0.0	0.0	0.0	0.0	0.0	33.3	38.5	36.6
Nat. Dip. in Engineering	16	7	23	31.2	42.9	34.8	0.0	0.0	0.0	0.0	0.0	0.0	68.8	57.1	65.2
Bachelor of Engineering	12	1	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0

TABLE C2

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Institute Of Technology, Carlow

Institute of Technology, Carlow	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies	76	88	164	57.9	59.1	58.5	3.9	3.4	3.7	0.0	0.0	0.0	38.2	37.5	37.8
Nat. Cert. in Business Studies (Office Information Systems)	9	90	99	33.3	52.2	50.5	0.0	3.3	3.0	0.0	0.0	0.0	66.7	44.4	46.5
Nat. Cert. in Business Studies (Accounting & Bus. Info. Systems)	20	17	37	15.0	35.3	24.3	0.0	0.0	0.0	0.0	0.0	0.0	85.0	64.7	75.7
Nat. Cert. in Engineering (Mechanical)	59	-	59	42.4	-	42.4	0.0	-	0.0	0.0	-	0.0	57.6	-	57.6
Nat. Cert. in Engineering (Electronic)	73	7	80	26.0	0.0	23.8	8.2	0.0	7.5	0.0	0.0	0.0	65.8	100.0	68.7
Nat. Cert. in Engineering (Civil)	59	5	64	32.2	0.0	29.7	11.9	20.0	12.5	0.0	0.0	0.0	55.9	80.0	57.8
Nat. Cert. in Construction Studies	49	3	52	30.6	33.3	30.8	0.0	0.0	0.0	0.0	0.0	0.0	69.4	66.7	69.2
Nat. Cert. in Construction Studies (Architectural Graphics)	45	12	57	55.6	41.7	52.6	2.2	0.0	1.8	0.0	0.0	0.0	42.2	58.3	45.6
Nat. Cert. in Science (Applied Physiology & Health Science)	10	52	62	100.0	90.4	91.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	8.1
Nat. Cert. in Science (Applied Physics)	16	5	21	56.2	40.0	52.4	0.0	0.0	0.0	0.0	0.0	0.0	43.8	60.0	47.6
Nat. Cert. in Science (Applied Chemistry)	11	10	21	81.8	90.0	85.7	9.1	0.0	4.8	0.0	0.0	0.0	9.1	10.0	9.5
Nat. Cert. in Science (Applied Biology)	47	61	108	57.4	52.5	54.6	6.4	4.9	5.6	0.0	1.6	0.9	36.2	41.0	38.9
Nat. Cert. in Computing	84	31	115	32.1	64.5	40.9	7.1	3.2	6.1	0.0	0.0	0.0	60.7	32.3	53.0
Nat. Cert. in Computing (Networking & Optical Communications)	41	10	51	39.0	20.0	35.3	0.0	0.0	0.0	0.0	0.0	0.0	61.0	80.0	64.7
Nat. Dip. in Business Studies (International Business & French)	6	15	21	66.7	53.3	57.1	0.0	0.0	0.0	0.0	0.0	0.0	33.3	46.7	42.9
Nat. Dip. in Business Studies (International Business & German)	5	11	16	20.0	54.5	43.7	0.0	0.0	0.0	0.0	0.0	0.0	80.0	45.5	56.3
Nat. Dip. in Business Studies (Office Info. Systems & German)	-	5	5	-	40.0	40.0	-	0.0	0.0	-	0.0	0.0	-	60.0	60.0
Nat. Dip. in Business Studies (Office Info. Systems & French)	-	6	6	-	100.0	100.0	-	0.0	0.0	-	0.0	0.0	-	0.0	0.0
Nat. Dip. in Design (Industrial)	28	17	45	67.9	70.6	68.9	0.0	0.0	0.0	7.1	5.9	6.7	25.0	23.5	24.4

TABLE C3

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Cork Institute Of Technology

Cork Institute of Technology	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies	74	94	168	64.9	85.1	76.2	2.7	0.0	1.2	0.0	0.0	0.0	32.4	14.9	22.6
Nat. Cert. in Business Studies (Office Information Systems)	2	40	42	100.0	80.0	81.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	19.0
Nat. Cert. in Business Studies (Recreation & Leisure)	13	15	28	76.9	100.0	89.3	0.0	0.0	.0.0	0.0	0.0	0.0	23.1	0.0	10.7
Nat. Cert. in Business Studies (Tourism)	3	36	39	66.7	88.9	87.2	33.3	0.0	2.6	0.0	0.0	0.0	0.0	11.1	10.3
Nat. Cert. in Business Studies (Hotel & Catering Supervision)	10	20	30	60.0	70.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	40.0	30.0	33.3
Ad. Cert. in Accounting	24	15	39	58.3	46.7	53.8	8.3	13.3	10.3	0.0	0.0	0.0	33.3	40.0	35.9
Nat. Cert. in Engineering (Civil)	60	12	72	58.3	33.3	54.2	1.7	25.0	5.6	0.0	0.0	0.0	40.0	41.7	40.3
Nat. Cert. in Engineering (Mechanical)	64	3	67	59.4	66.7	59.7	1.6	0.0	1.5	0.0	0.0	0.0	39.1	33.3	38.8
Nat. Cert. in Engineering (Electronic)	105	6	111	37.1	33.3	36.9	9.5	16.7	9.9	0.0	0.0	0.0	53.3	50.0	53.2
Nat. Cert. in Engineering (Electrical)	39	2	41	51.3	50.0	51.2	7.7	0.0	7.3	0.0	0.0	0.0	41.0	50.0	41.5
Nat. Cert. in Building & Industrial Services	35	1	36	54.3	0.0	52.8	2.9	100.0	5.6	0.0	0.0	0.0	42.9	0.0	41.7
Nat. Cert. in Technology (Print Media Communications)	8	22	30	75.0	63.6	66.7	0.0	0.0	0.0	0.0	0.0	0.0	25.0	36.4	33.3
Nat. Cert. in Technology (Automobile Technology)	34	1	35	76.5	100.0	77.1	2.9	0.0	2.9	0.0	0.0	0.0	20.6	0.0	20.0
Nat. Cert. in Construction Studies	58	13	71	41.4	53.8	43.7	0.0	0.0	0.0	0.0	0.0	0.0	58.6	46.2	56.3
Nat. Cert. in Science (Applied Physics & Instrumentation)	24	10	34	66.7	70.0	67.6	8.3	0.0	5.9	0.0	0.0	0.0	25.0	30.0	26.5
Nat. Cert. in Science (Applied Biology)	22	72	94	63.6	73.6	71.3	13.6	6.9	8.5	0.0	0.0	0.0	22.7	19.4	20.2
Nat. Cert. in Science (Applied Chemistry)	19	25	44	73.7	80.0	77.3	0.0	4.0	2.3	0.0	0.0	0.0	26.3	16.0	20.4
Nat. Cert. in Computing	33	18	51	30.3	22.2	27.5	9.1	11. 1	9.8	0.0	0.0	0.0	60.6	66.7	62.7
Nat. Cert. in Applied Social Studies (Social Care)	8	55	63	25.0	74.5	68.3	0.0	5.5	4.8	0.0	0.0	0.0	75.0	20.0	27.0
Nat. Dip. in Marine Engineering	40	2	42	47.5	50.0	47.6	0.0	0.0	0.0	20.0	0.0	19.0	32.5	50.0	33.3
Nat. Dip. in Architectural Technology	54	15	69	55.6	60.0	56.5	3.7	6.7	4.3	5.6	0.0	4.3	35.2	33.3	34.8
Nat. Dip. in Medical Laboratory Science	2	18	20	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nat. Dip. in Nautical Science	21	2	23	76.2	100.0	78.3	0.0	0.0	0.0	0.0	0.0	0.0	23.8	0.0	21.7
Nat. Dip. in Art	14	41	55	64.3	53.7	56.4	0.0	0.0	0.0	0.0	0.0	0.0	35.7	46.3	43.6
Nat. Dip. in Design	3	12	15	66.7	25.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	33.3	75.0	66.7
Nat. Dip. in Music	1	3	4	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bachelor of Music (CSM)	7	7	14	42.9	57.1	50.0	0.0	0.0	0.0	57.1	14.3	35.7	0.0	28.6	14.3
Bachelor of Engineering (Chemical & Process)	21	7	28	61.9	100.0	71.4	0.0	0.0	0.0	19.0	0.0	14.3	19.0	.00	14.3
Bachelor of Engineering (Electronic)	51	5	56	29.4	40.0	30.4	0.0	0.0	0.0	35.3	40.0	35.7	35.3	20.0	33.9
Bachelor of Engineering (Mechanical)	31	1	32	29.0	0.0	28.1	0.0	0.0	0.0	45.2	100.0	46.9	25.8	0.0	25.0
Bachelor of Science (Computing)	67	25	92	35.8	36.0	35.9	0.0	0.0	0.0	38.8	16.0	32.6	25.4	48.0	31.5

TABLE C4

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Dundalk Institute Of Technology

Dundalk Institute of Technology	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies (Accounting)	15	14	29	66.7	100.0	82.8	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	17.2
Nat. Cert. in Business Studies (Office Information Systems)	13	95	108	23.1	25.3	25.0	0.0	6.3	5.6	0.0	0.0	0.0	76.9	68.4	69.4
Nat. Cert. in Business Studies (Marketing with Language)	49	57	106	26.5	59.6	44.3	2.0	1.8	1.9	0.0	0.0	0.0	71.4	38.6	53.8
Nat. Cert. in Business Studies (Management & Admin. Studies)	103	71	174	50.5	49.3	50.0	6.8	2.8	5.2	0.0	0.0	0.0	42.7	47.9	44.8
Nat. Cert. in Engineering (Manufacturing)	19	3	22	42.1	0.0	36.4	0.0	0.0	0.0	0.0	0.0	0.0	57.9	100.0	63.6
Nat. Cert. in Engineering (Mechanical)	43	9	52	32.6	11.1	28.8	4.6	0.0	3.8	0.0	0.0	0.0	62.8	88.9	67.3
Nat. Cert. in Engineering (Civil)	65	3	68	40.0	33.3	39.7	6.2	0.0	5.9	0.0	0.0	0.0	53.8	66.7	54.4
Nat. Cert. in Construction	80	5	85	40.0	0.0	37.6	2.5	20.0	3.5	0.0	0.0	0.0	57.5	80.0	58.8
Nat. Cert. in Electronics	51	8	59	19.6	0.0	16.9	2.0	0.0	1.7	0.0	0.0	0.0	78.4	100.0	81.4
Nat. Cert. in Science	40	66	106	27.5	16.7	20.8	10.0	9.1	9.4	0.0	0.0	0.0	62.5	74.2	69.8
Nat. Dip. in Electronics (Product Development)	34	3	37	41.2	66.7	43.2	0.0	0.0	0.0	5.9	0.0	5.4	52.9	33.3	51.4

TABLE C5

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Galway-Mayo Institute Of Technology

Galway-Mayo Institute of Technology	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies (Office Information Systems)	5	76	81	0.0	72.4	67.9	40.0	2.6	4.9	0.0	0.0	0.0	60.0	25.0	27.2
Nat. Cert. in Business Studies (Agri-Business)	38	8	46	52.6	87.5	58.7	18.4	12.5	17.4	0.0	0.0	0.0	28.9	0.0	23.9
An Teastas Naisiunta sa Staidear Gno	5	14	19	40.0	64.3	57.9	0.0	0.0	0.0	0.0	0.0	0.0	60.0	35.7	42.1
Nat. Cert. in Business Studies	82	97	197	65.9	70.1	68.2	3.7	2.1	2.8	0.0	0.0	0.0	30.5	27.8	29.0
Nat. Cert. in Technology (Furniture Design & Making)	19	3	22	89.5	100.0	90.9	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	9.1
Nat. Cert. in European Hospitality Administration	3	40	43	33.3	70.0	67.4	0.0	5.0	4.7	0.0	0.0	0.0	66.7	25.0	27.9
Nat. Cert. in Heritage Studies	13	20	33	61.5	45.0	51.5	0.0	15.0	9.1	0.0	0.0	0.0	38.5	40.0	39.4
Nat. Cert. in Business Studies [Castlebar]	44	53	97	20.5	28.3	24.7	13.6	7.5	10.3	0.0	0.0	0.0	65.9	64.2	64.9
Nat. Cert. in Engineering (Mechanical Engineering)	51	4	55	58.8	75.0	60.0	3.9	0.0	3.6	0.0	0.0	0.0	37.3	25.0	36.4
Nat. Cert. in Engineering (Industrial Engineering)	40	4	44	27.5	25.0	27.3	15.0	0.0	13.6	0.0	0.0	0.0	57.5	75.0	59.1
Nat. Cert. in Engineering (Electronic Engineering)	68	4	72	42.6	25.0	42.3	10.3	25.0	11.3	0.0	0.0	0.0	47.1	50.0	47.9
Nat. Cert. in Engineering (Civil Engineering)	50	3	53	72.0	0.0	67.9	0.0	0.0	0.0	0.0	0.0	0.0	28.0	100.0	32.1
Nat. Cert. in Engineering (Electronic Engineering) [Castlebar]	27	-	27	14.8	-	14.8	14.8	-	14.8	0.0	0.0	0.0	70.4	-	70.4
Nat. Cert. in Construction Studies [Castlebar]	25	1	26	16.0	100.0	19.2	8.0	0.0	7.7	0.0	0.0	0.0	76.0	0.0	73.1
Nat. Cert. in Construction Studies	38	4	42	42.1	50.0	42.9	2.6	0.0	2.4	0.0	0.0	0.0	55.3	50.0	54.8
Nat. Cert. in Science (Aquaculture)	33	20	53	21.2	15.0	18.9	0.0	0.0	0.0	0.0	0.0	0.0	78.8	85.0	81.1
Nat. Cert. in Science	57	117	174	54.4	60.7	58.6	5.3	6.0	5.7	0.0	0.0	0.0	40.4	33.3	35.6
Nat. Cert. in Computing	31	26	57	58.1	50.0	54.4	16.1	15.4	15.8	0.0	0.0	0.0	25.8	34.6	29.8
Nat. Cert. in Computing [Castlebar]	33	11	44	36.4	36.4	36.4	18.2	18.2	18.2	0.0	0.0	0.0	45.5	45.5	45.5
Nat. Dip. in Property Management	26	21	47	57.7	57.1	57.4	0.0	9.5	4.3	0.0	0.0	0.0	42.3	33.3	38.3
Nat. Dip. in Hotel & Catering Management	19	53	72	68.4	66.0	66.7	5.3	5.7	5.6	0.0	0.0	0.0	26.3	28.3	27.8
Nat. Dip. in Art & Design	21	44	65	28.6	54.5	46.2	0.0	4.5	3.1	0.0	0.0	0.0	71.4	40.9	50.8
Bachelor of Arts in Hotel & Catering Management	31	66	97	45.2	68.2	60.8	0.0	0.0	0.0	6.5	1.5	3.1	48.4	30.3	36.1
Bachelor of Technology (Manufacturing Technology)	52	5	57	28.8	20.0	28.1	0.0	0.0	0.0	11.5	20.0	12.3	59.6	60.0	59.6

TABLE C6

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Letterkenny Institute Of Technology

Letterkenny Institute of Technology	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies	44	34	78	43.2	44.1	43.6	4.5	2.9	3.8	0.0	0.0	0.0	52.3	52.9	52.6
Nat. Cert. in Business Studies (Office Information Systems)	2	46	48	0.0	47.8	45.8	0.0	0.0	0.0	0.0	0.0	0.0	100.0	52.2	54.2
Nat. Cert. in Business Studies (Office Info. Systems & Lang.)	-	4	4	-	75.0	75.0	-	0.0	0.0	-	0.0	0.0	-	25.0	25.0
Teastas Naistiunta sna Corais Eolais Oifige	-	8	8	-	62.5	62.5	-	0.0	0.0	-	0.0	0.0	-	37.5	37.5
Nat. Cert. in Legal Studies	23	52	75	60.9	48.1	52.0	0.0	0.0	0.0	0.0	0.0	0.0	39.1	51.9	48.0
Nat. Cert. in Design (Industrial Design)	3	1	4	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nat. Cert. in Engineering (Civil)	42	4	46	31.0	50.0	32.6	0.0	0.0	0.0	0.0	0.0	0.0	69.0	50.0	67.4
Nat. Cert. in Engineering (Mechanical)	22	-	22	40.9	-	40.9	0.0	-	0.0	0.0	-	0.0	59.1	-	59.1
Nat. Cert. in Construction Studies	41	2	43	29.3	0.0	27.9	2.4	50.0	4.7	0.0	0.0	0.0	68.3	50.0	67.4
Nat. Cert. in Electronics	34	3	37	20.6	0.0	18.9	0.0	0.0	0.0	0.0	0.0	0.0	79.4	100.0	81.1
Nat. Cert. in Aquatic Science	6	2	8	16.7	50.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	83.3	50.0	75.0
Nat. Cert. in Science (Applied Biology)	9	26	35	33.3	26.9	28.6	11.1	0.0	2.9	0.0	0.0	0.0	55.6	73.1	68.6
Nat. Cert. in Science (Applied Chemistry)	1	2	3	100.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	66.7
Nat. Cert. in Computing	31	35	66	41.9	54.3	48.5	0.0	0.0	0.0	0.0	0.0	0.0	58.1	45.7	51.5
Nat. Dip. in Bus. Studies/Lang. & European Studies	3	20	23	0.0	45.0	39.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	55.0	60.9
Nat. Dip. in Design (Graphics)	27	13	40	33.3	30.8	32.5	0.0	0.0	0.0	0.0	0.0	0.0	66.7	69.2	67.5
Nat. Dip. in Food Science	11	27	38	9.1	14.8	13.2	0.0	0.0	0.0	0.0	0.0	0.0	90.9	85.2	86.8

TABLE C7

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Limerick Institute Of Technology

Limerick Institute of Technology	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies (with Computer Applications)	38	45	83	73.7	57.8	65.1	0.0	0.0	0.0	0.0	0.0	0.0	26.3	42.2	34.9
Nat. Cert. in Engineering (Civil)	55	3	58	76.4	33.3	74.1	0.0	0.0	0.0	0.0	0.0	0.0	23.6	66.7	25.9
Nat. Cert. in Engineering (Electronics)	30	2	32	46.7	50.0	46.9	0.0	0.0	0.0	0.0	0.0	0.0	53.3	50.0	53.1
Nat. Cert. in Engineering (Electromechanical)	35	4	39	20.0	0.0	17.9	0.0	0.0	0.0	0.0	0.0	0.0	80.0	100.0	82.1
Nat. Cert. in Construction Studies	33	5	38	66.7	60.0	65.8	0.0	0.0	0.0	0.0	0.0	0.0	33.3	40.0	34.2
Nat. Cert. in Science (Applied Biology)	12	41	53	66.7	68.3	67.9	8.3	2.4	3.8	0.0	0.0	0.0	25.0	29.3	28.3
Nat. Cert. in Science (Applied Chemistry)	24	15	39	50.0	60.0	53.8	8.3	6.7	7.7	0.0	0.0	0.0	41.7	33.3	38.5
Nat. Cert. in Applied Computing	78	41	119	44.9	43.9	44.5	9.0	0.0	5.9	0.0	0.0	0.0	46.1	56.1	49.6
Marketing Management	53	24	77	32.1	33.3	32.5	0.0	4.2	1.3	0.0	0.0	0.0	67.9	62.5	66.2
Diploma in Architectural Technology	36	6	42	36.1	50.0	38.1	0.0	0.0	0.0	8.3	0.0	7.1	55.6	50.0	54.8
Electronic & Telecommunications Technician	30	5	35	26.7	20.0	25.7	0.0	0.0	0.0	0.0	0.0	0.0	73.3	80.0	74.3
Marine Electronics	59	6	65	33.9	33.3	33.8	1.7	0.0	1.5	0.0	0.0	0.0	64.4	66.7	64.6
Construction Econ. & Management (Quantity Surveying)	50	5	55	80.0	60.0	78.2	0.0	0.0	0.0	10.0	20.0	10.9	10.0	20.0	10.9
Construction Econ. & Management (Valuation Surveying)	20	13	33	65.0	53.8	60.6	0.0	0.0	0.0	0.0	0.0	0.0	35.0	46.2	39.4
Construction Econ. & Management (Building Management)	20	-	20	95.0	-	95.0	0.0	-	0.0	0.0	-	0.0	5.0	-	5.0

TABLE C8

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Institute Of Technology, Sligo

Institute of Technology, Sligo	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies	34	33	67	50.0	72.7	61.2	2.9	3.0	3.0	0.0	0.0	0.0	47.1	24.2	35.8
Nat. Cert. in Business Studies (Lang. & Marketing French Major)	8	32	40	50.0	56.3	55.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	43.7	45.0
Nat. Cert. in Business Studies (Lang. & Marketing German Major)	4	20	24	100.0	80.0	83.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	16.7
Nat. Cert. in Business Studies (Lang. & Marketing Spanish Major)	3	1	4	66.7	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	100.0	50.0
Nat. Cert. in Business Studies (Office Information Systems)	5	71	76	20.0	77.5	73.7	0.0	1.4	1.3	0.0	0.0	0.0	80.0	21.1	25.0
Nat. Cert. in Business Studies in Accounting & Computing	17	26	43	17.6	30.8	25.6	0.0	3.8	2.3	0.0	0.0	0.0	82.4	65.4	72.1
Nat. Cert. in Engineering (Mechanical)	47	1	48	29.8	0.0	29.2	2.1	0.0	2.1	0.0	0.0	0.0	68.1	100.0	68.7
Nat. Cert. in Engineering (Computer Aided Precision Eng.)	28	-	28	42.9	-	42.9	0.0	-	0.0	0.0	-	0.0	57.1	-	57.1
Nat. Cert. in Engineering (Electronics)	32	4	36	34.4	50.0	36.1	0.0	0.0	0.0	0.0	0.0	0.0	65.6	50.0	63.9
Nat. Cert. in Engineering (Civil)	52	1	53	46.2	0.0	45.3	0.0	0.0	0.0	0.0	0.0	0.0	53.8	100.0	54.7
Nat. Cert. in Construction Studies	59	2	61	52.5	50.0	52.5	0.0	0.0	0.0	0.0	0.0	0.0	47.5	50.0	47.5
Nat. Cert. in Science	21	57	78	66.7	56.1	59.0	0.0	1.8	1.3	0.0	0.0	0.0	33.3	42.1	39.7
Nat. Cert. in Computing	40	27	67	37.5	48.1	41.8	0.0	0.0	0.0	0.0	0.0	0.0	62.5	51.9	58.2
Nat. Cert. in Applied Social Studies (Social Care)	7	81	88	14.3	70.4	65.9	0.0	1.2	1.1	0.0	0.0	0.0	85.7	28.4	33.0
Nat. Dip. in Business Studies (European Business with French)	4	18	22	25.0	88.9	77.3	0.0	0.0	0.0	50.0	5.6	13.6	25.0	5.6	9.1
Nat. Dip. in Business Studies (European Business with German)	3	11	14	33.3	81.8	71.4	33.3	0.0	7.1	0.0	0.0	0.0	33.3	18.2	21.4
Nat. Dip. in Business Studies (European Business with Spanish)	1	2	3	0.0	50.0	33.3	0.0	0.0	0.0	100.0	0.0	33.3	0.0	50.0	33.3
Nat. Dip. in Business Studies (Recreation & Leisure)	12	16	28	91.7	81.3	85.7	0.0	0.0	0.0	0.0	0.0	0.0	8.3	18.8	14.3
Nat. Dip. in Design (Industrial Design)	15	6	21	73.3	100.0	81.0	0.0	0.0	0.0	0.0	0.0	0.0	26.7	0.0	19.0
Nat. Dip. in Science (Analytical & Chemistry/Quality Control)	8	5	13	12.5	20.0	15.4	0.0	0.0	0.0	0.0	0.0	0.0	87.5	80.0	84.6
Nat. Dip. in Science (Pollution Assessment & Control)	10	17	27	80.0	52.9	63.0	0.0	5.9	3.7	0.0	0.0	0.0	20.0	41.2	33.3
Nat. Dip. in Art	12	24	36	50.0	58.3	55.6	0.0	8.3	5.6	0.0	0.0	0.0	50.0	33.3	38.9
Nat. Dip. in Science (Health & Safety/Industrial Hygiene)	6	24	30	33.3	54.2	50.0	16.7	4.2	6.7	0.0	4.2	3.3	50.0	37.5	40.0
Bachelor of Science (Environmental Science & Technology)	20	19	39	55.0	57.9	56.4	0.0	0.0	0.0	15.0	21.1	17.9	30.0	21.1	25.6

TABLE C9

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Institute Of Technology, Tallaght

Institute of Technology, Tallaght	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies	138	138	276	58.0	65.9	62.0	6.5	5.1	5.8	0.0	0.0	0.0	35.5	29.0	32.2
Nat. Cert. in Engineering (Electronics)	79	7	86	36.7	85.7	40.7	1.3	0.0	1.2	0.0	0.0	0.0	62.0	14.3	58.1
Nat. Cert. in Engineering (Mechanical)	91	3	94	48.4	66.7	48.9	2.2	0.0	2.1	0.0	0.0	0.0	49.5	33.3	48.9
Nat. Cert. in Science	58	70	128	39.7	44.3	42.2	8.6	2.9	5.5	0.0	0.0	0.0	51.7	52.9	52.3
Nat. Cert. in Computing	71	45	116	39.4	35.6	37.9	4.2	2.2	3.4	0.0	0.0	0.0	56.3	62.2	58.6

TABLE C10

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Institute Of Technology, Tralee

Institute of Technology, Tralee	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies	87	86	173	56.3	62.8	59.5	6.9	3.5	5.2	0.0	0.0	0.0	36.8	33.7	35.3
Nat. Cert. in Business Studies (Marketing & French)	6	30	36	16.7	53.3	47.2	83.3	6.7	19.4	0.0	0.0	0.0	0.0	40.0	33.3
Nat. Cert. in Business Studies (Marketing & German)	1	8	9	100.0	25.0	33.3	0.0	37.5	33.3	0.0	0.0	0.0	0.0	37.5	33.3
Nat. Cert. in Business Studies (Office Information Systems)	5	75	80	60.0	68.0	67.5	0.0	2.7	2.5	0.0	0.0	0.0	40.0	29.3	30.0
Nat. Cert. in Engineering (Mechanical)	54	1	55	57.4	0.0	56.4	0.0	0.0	0.0	0.0	0.0	0.0	42.6	100.0	43.6
Nat. Cert. in Engineering (Civil)	54	4	58	46.3	25.0	44.8	5.6	0.0	5.2	0.0	0.0	0.0	48.1	75.0	50.0
Nat. Cert. in Engineering (Mechanical & Electronic)	51	4	55	35.3	50.0	36.4	3.9	0.0	3.6	0.0	0.0	0.0	60.8	50.0	60.0
Nat. Cert. in Engineering (Agricultural)	53	-	53	49.1	-	49.1	0.0	-	0.0	0.0	-	0.0	50.9	-	50.9
Nat. Cert. in Construction Studies	45	1	46	37.8	0.0	37.0	2.2	0.0	2.2	0.0	0.0	0.0	60.0	100.0	60.9
Nat. Cert. in Science (Health & Leisure Studies)	39	56	95	74.4	73.2	73.7	2.6	7.1	5.3	0.0	0.0	0.0	23.1	19.6	21.1
Nat. Cert. in Science (Applied Physics & Electronics)	12	3	15	50.0	33.3	46.7	0.0	0.0	0.0	0.0	0.0	0.0	50.0	66.7	53.3
Nat. Cert. in Science (Applied Chemistry)	10	5	15	50.0	40.0	46.7	0.0	0.0	0.0	0.0	0.0	0.0	50.0	60.0	53.3
Nat. Cert. in Science (Applied Biology)	18	64	82	61.1	68.8	67.1	5.6	9.4	8.5	0.0	0.0	0.0	33.3	21.9	24.4
Nat. Cert. in Science (Aquaculture)	8	15	23	50.0	40.0	43.5	0.0	0.0	0.0	0.0	0.0	0.0	50.0	60.0	56.5
Nat. Cert. in Computing	49	32	81	46.9	59.4	51.9	4.1	3.1	3.7	0.0	0.0	0.0	49.0	37.5	44.4
Nat. Dip. in The Performing Arts (Folk Studies)	2	8	10	50.0	75.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	25.0	30.0

TABLE C11

Completion Rates (%) For Students Undertaking Courses Of Study In 1995 At Waterford Institute Of Technology

Waterford Institute of Technology	Number commencing			Graduating on time (%)			Graduating late (%)			Still attending course (%)			Not completing course (%)		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Nat. Cert. in Business Studies	39	48	87	56.4	72.9	65.5	12.8	8.3	10.3	0.0	0.0	0.0	30.8	18.8	24.1
Nat. Cert. in Business Studies (Hotel & Catering)	5	18	23	40.0	77.8	69.6	40.0	0.0	8.7	0.0	0.0	0.0	20.0	22.2	21.7
Nat. Cert. in Legal Studies	31	63	94	61.3	68.3	66.0	12.9	9.5	10.6	0.0	0.0	0.0	25.8	22.2	23.4
Nat. Cert. in Construction Economics	35	5	40	62.9	80.0	65.0	2.9	0.0	2.5	0.0	0.0	0.0	34.3	20.0	32.5
Nat. Cert. in Architectural Technology	37	10	47	56.8	70.0	59.6	8.1	10.0	8.5	0.0	0.0	0.0	35.1	20.0	31.9
Nat. Cert. in Engineering (Civil)	27	2	29	48.1	100.0	51.7	0.0	0.0	0.0	0.0	0.0	0.0	51.9	0.0	48.3
Nat. Cert. in Engineering (Electronic)	35	2	37	48.6	100.0	51.4	17.1	0.0	16.2	0.0	0.0	0.0	34.3	0.0	32.4
Nat. Cert. in Engineering (Mechanical)	41	-	41	65.9	-	65.9	7.3	-	7.3	0.0	-	0.0	26.8	-	26.8
Nat. Cert. in Engineering (Production)	22	4	26	45.5	50.0	46.2	4.5	0.0	3.8	0.0	0.0	0.0	50.0	50.0	50.0
Nat. Cert. in Engineering (Environmental)	22	8	30	50.0	62.5	53.3	0.0	0.0	0.00	0.0	0.0	0.0	50.0	37.5	46.7
Nat. Cert. in Science	38	67	105	52.6	65.7	61.0	5.3	6.0	5.7	0.0	0.0	0.0	42.1	28.4	33.3
Ad. Cert. in Science (Agricultural)	19	10	29	89.5	90.0	89.7	0.0	0.0	0.0	0.0	0.0	0.0	10.5	10.0	10.3
Nat. Cert. in Computing (Commercial)	61	38	99	63.9	57.9	61.6	4.9	10.5	7.1	0.0	0.0	0.0	31.1	31.6	31.3
Nat. Cert. in Computing (Industrial)	28	13	41	21.4	23.1	22.0	21.4	15.4	19.5	0.0	0.0	0.0	57.1	61.5	58.5
Nat. Dip. in Business Studies (Recreation & Leisure)	42	30	72	69.0	93.3	79.2	0.0	0.0	0.0	2.4	3.3	2.8	28.6	3.3	18.1
Nat. Dip. in Business Studies in Lang. & Marketing (Fr.)	12	22	34	41.7	27.3	32.4	0.0	0.0	0.0	8.3	4.5	5.9	50.0	68.2	61.8
Nat. Dip. in Business Studies in Lang. & Marketing (Ger.)	16	24	40	31.3	20.8	25.0	0.0	12.5	7.5	0.0	12.5	7.5	68.8	54.2	60.0
Nat. Dip. in Design Communications	5	13	18	40.0	53.8	50.0	0.0	7.7	5.6	0.0	7.7	5.6	60.0	30.8	38.9
Nat. Dip. in Social Studies (Applied Social Care)	3	27	30	66.7	77.8	76.7	0.0	0.0	0.0	0.0	0.0	0.0	33.3	22.2	23.3
Nat. Dip. in Art	2	10	12	50.0	70.0	66.7	0.0	0.0	0.0	50.0	0.0	8.3	0.0	30.0	25.0
Bachelor of Business Studies	86	83	169	58.1	67.5	62.7	0.0	0.0	0.0	15.1	7.2	11.2	26.7	25.3	26.0
Bachelor of Business Studies with French	25	40	65	76.0	55.0	63.1	0.0	0.0	0.0	16.0	12.5	13.8	8.0	32.5	23.1
Bachelor of Technology in Electronics	38	-	38	28.9	-	28.9	0.0	-	0.0	13.2	-	13.2	57.9	-	57.9
Bachelor of Science in Construction Management	52	1	53	63.5	100.0	64.2	0.0	0.0	0.0	3.8	0.0	3.8	32.7	0.0	32.1
Bachelor of Science in Applied Computing	81	34	115	45.7	44.1	45.2	0.0	0.0	0.0	13.6	5.9	11.3	40.7	50.0	43.5
Bachelor of Arts in Music	8	12	20	37.5	66.7	55.0	0.0	0.0	0.0	50.0	25.0	35.0	12.5	8.3	10.0

TABLE D1

Categorisation Of Courses (1995 CAO Course Code) In Each Field Of Study, By Institute Of Technology (National Certificate)

Institute of Technology	Business Studies	Engineering	Science	Computing	Humanities
Athlone	AL001, AL003, AL007, AL008	AL009, AL010, AL012, AL013, AL015	AL016	-	AL006
Carlow	CW011, CW012, CW023	CW005, CW006, CW007, CW008, CW009	CW001, CW002, CW003, CW004	CW010, CW020	-
Cork	CR021, CR022, CR023, CR032, CR041, CR042	CR036, CR046, CR051, CR052, CR061, CR062, CR071, CR072,	CR001, CR006, CR007	CR016	CR031
Dundalk	DK004, DK005, DK006, DK007	DK002, DK008, DK009, DK010, DK011	DK012	-	-
Galway-Mayo	GA002, GA003, GA004, GA005, GA021, GA022, GA023	GA009, GA010, GA011, GA012, GA013, GA015, GA024, GA026	GA007, GA006	GA008, GA025	-
Letterkenny	LY003, LY004, LY005, LY006, LY016, LY018	LY008, LY009, LY010, LY011	LY001, LY013, LY014	LY012	-
Limerick	LC023	LC004, LC005, LC006, LC007	LC008, LC020	LC003	-
Sligo	SG101, SG102, SG103, SG104, SG015, SG018	SG301, SG302, SG303, SG304, SG305	SG401	SG107	SG201
Tallaght	TA001	TA004, TA005	TA003	TA002	-
Tralee	TL220, TL260, TL270, TL350	TL620, TL630, TL650, TL670, TL680	TL410, TL420, TL440, TL460 TL480,	TL310	-
Waterford	WD003, WD013, WD039	WD005, WD006, WD007, WD010, WD011, WD012, WD040	WD008, WD009	WD014, WD015	-

TABLE D2

**Categorisation Of Courses (1995 CAO Course Code) In Each Field Of Study,
By Institute Of Technology (National Diploma)**

Institute of Technology	Business Studies	Engineering	Science	Humanities
Athlone	AL018, AL019, AL020	AL014	-	-
Carlow	CW015, CW027, CW028, CW029, CW038	-	-	-
Cork	-	CR090, CR095	CR085, CR094	ART, DESIGN, MUSIC
Dundalk	-	DK001	-	-
Galway-Mayo	GA016, GA018	-	-	GA017
Letterkenny	LY007, LY015	-	LY017	-
Limerick	LC009	LC010, LC012, LC013	-	-
Sligo	SG131, SG132, SG133, SG134, SG232	-	SG431, SG432, SG433	SG232
Tralee	-	-	-	TL101
Waterford	WD019, WD020, WD021, WD023	-	-	WD018, WD022

TABLE D3

**Categorisation Of Courses (1995 CAO Course Code) In Each Field Of Study,
By Institute Of Technology (Degree)**

Institute of Technology	Business Studies	Engineering	Science	Humanities
Cork	-	CR105, CR107, CR108	CR106	MUSIC
Galway-Mayo	GA019	GA020	-	-
Limerick	-	LC017, LC018, LC019	-	-
Sligo	-	-	SG402	-
Waterford	WD048, WD049	WD026	WD025, WD028	WD027

TABLE D4

Categorisation Of Courses (1995 CAO Course Code) In Each Sub-Field Of Study, By Institute Of Technology (National Certificate)

Institute of Technology	Business Studies	Office Information Systems	Mechanical Engineering	Civil Engineering	Electronics	Construction Studies	Science	Computing
Athlone	AL001	AL003	AL010	AL013	AL012	AL015	AL016	-
Carlow	CW011	CW012	CW005	CW007	CW006	CW008	CW003, CW004	CW010
Cork	CR021	CR022	CR071	CR051	CR061	CR052	CR006, CR007	CR016
Dundalk	-	DK007	DK011	DK008	DK002	DK009	DK012	-
Galway-Mayo	GA002, GA023	GA005	GA013	GA009	GA011, GA026	GA010, GA024	GA006	GA008, GA025
Letterkenny	LY003	LY004	LY011	LY008	LY010	LY009	LY013, LY014	LY012
Limerick	-	-	LC007	LC005	LC006	LC004	LC008, LC020	LC003
Sligo	SG101	SG105	SG303	SG301	SG305	SG302	SG401	SG107
Tallaght	TA001	-	TA005	-	TA004	-	TA003	TA002
Tralee	TL220	TL350	TL670	TL620	TL680	TL630	TL440, TL420	TL310
Waterford	WD003	-	WD011	WD007	WD010	WD005, WD006	WD008	WD014, WD015

Courses at: Athlone Institute of Technology (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*
Two year courses			
AL001	BUSSTUD	National Certificate in Business Studies	215
AL003	OFFSYS	National Certificate in Office Information Systems	200
AL006	SOC	National Certificate in Applied Social Studies in Social Care	350
AL007	FRNT	National Certificate in Front Office Administration	250
AL008	CERTHOT	National Certificate in Hotel and Catering Supervision	270
AL009	PLAS	National Certificate in Engineering (Plastics)	135
AL010	MECH	National Certificate in Engineering (Mechanical)	170
AL012	ELEC	National Certificate in Engineering (Electronic)	145
AL013	CIV	National Certificate in Engineering (Civil)	210
AL015	CONST	National Certificate in Construction Studies	190
AL016	SCI	National Certificate in Science	200
Three year courses			
AL014	MIN	National Diploma in Engineering (Mineral)	140
AL018	DIPHOT	National Diploma in Hotel and Catering Management	305
AL019	PROFACC	National Diploma in Professional Accounting	245
AL020	GRAPH	National Diploma in Design (Communications)	525
Degree Courses			
AL030	POLY	Bachelor of Engineering (Polymer Engineering)	270

Courses at: Institute of Technology, Carlow (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*

Two Year courses

CW001	PHYSIOL	National Certificate in Science (Applied Physiology & Health)	390
CW002	PHYS	National Certificate in Science (Applied Physics)	180
CW003	CHEM	National Certificate in Science (Applied Chemistry)	185
CW004	BIOL	National Certificate in Science (Applied Biology)	230
CW005	MECH	National Certificate in Engineering (Mechanical)	160
CW006	TRON	National Certificate in Engineering (Electronic)	150
CW007	CIV	National Certificate in Engineering (Civil)	185
CW008	CONST	National Certificate in Construction Studies	180
CW009	ARCHGRA	National Certificate in Construction Studies (Architectural Graphics)	235
CW010	COMP	National Certificate in Computing (Computer Programming)	110
CW011	BUSSTUD	National Certificate in Business Studies	120
CW012	OFFSYS	National Certificate in Business Studies (Office Information Systems)	200
CW020	COMP	National Certificate in Computing (Networking & Optical Comm.)	205
CW023	ACCINS	National Certificate in Business Studies (Acc. & Bus. Info. Systems)	160

Three year courses

CW015	DESIGN	National Diploma in Design (Industrial)	255
CW027	FRBUS	National Diploma in Business Studies (International Business & French)	210
CW028	GRBUS	National Diploma in Business Studies (International Business & German)	190
CW029	GRINF	National Diploma in Office Information Systems & German	250
CW038	FRINF	National Diploma in Office Information Systems & French	210

Courses at: Cork Institute of Technology (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*

Two year courses

CR001	PHYSICS	National Certificate in Science (Applied Physics & Instrumentation)	265
CR006	BIOLOGY	National Certificate in Science (Applied Biology)	365
CR007	CHEMIST	National Certificate in Science (Applied Chemistry)	345
CR016	COMPCERT	National Certificate in Computing	340
CR021	BUSSTUD	National Certificate in Business Studies	345
CR022	OFFSYS	National Certificate in Business Studies (Office Information Systems)	285
CR023	BUSACC	Advanced Certificate in Business Studies (Accounting)	255
CR031	SOCSTUD	National Certificate in Applied Social Studies (Social Care)	375
CR032	RECLEIS	National Certificate in Business Studies (Recreation & Leisure)	355
CR036	PRIPUB	National Certificate in Technology (Print Media Communications)	330
CR041	BUSTOUR	National Certificate in Business Studies (Tourism)	365
CR042	BUSCATER	National Certificate in Business Studies (Hotel & Catering Supervision)	305
CR046	AUTOENG	National Certificate in Engineering (Automobile)	235
CR051	CIVENG	National Certificate in Engineering (Civil)	285
CR052	CONST	National Certificate in Construction Studies	235
CR061	ELECTRON	National Certificate in Engineering (Electronic)	235
CR062	ELECTRIC	National Certificate in Engineering (Electrical)	255
CR071	MECHENG	National Certificate in Engineering (Mechanical)	280
CR072	BUILDSVS	National Certificate in Engineering (Building & Industrial Services)	245

Three year courses

CR085	MEDLAB	Certificate in Medical Laboratory Science	465
CR090	ARCHDIP	National Diploma in Construction Studies (Architectural Technology)	300
CR094	NAUTICDIP	National Diploma in Science (Nautical Science)	295
CR095	MARINEDIP	National Diploma in Engineering (Marine)	250

Degree Courses

CR105	CHEMENG	Bachelor of Engineering in Chemical & Process Engineering	455
CR106	COMP	Bachelor of Science in Computer Applications	350
CR107	ELEC	Bachelor of Engineering in Electronic Engineering	335
CR108	MECH	Bachelor of Engineering in Mechanical Engineering	400

Off-Campus Courses

	FINEART	National Diploma in Art (Fine Art) (Crawford College of Art and Design, Cork)	590
	CERAMIC	National Diploma in Design (Ceramic Products) (Crawford College of Art and Design, Cork)	570
	MUSIC	Diploma of the Cork School of Music (Cork School of Music)	Test ‡
	MUSIC	Bachelor of Music (Cork School of Music)	

‡   Restricted application

Courses at: Dundalk Institute of Technology (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*
Two Year courses			
DK002	TRON	National Certificate in Electronics	140
DK004	ACC	Advanced Certificate in Business Studies (Accounting)	270
DK005	BUSSTUD	National Certificate in Business Studies (Management & Admin. Studies)	200
DK006	MARKLANG	National Certificate in Business Studies (Marketing with Lang.)	200
DK007	OFFSYS	National Certificate in Business Studies (Office Information Systems)	170
DK008	CIV	National Certificate in Engineering (Civil)	180
DK009	CONST	National Certificate in Construction	160
DK010	MANUF	National Certificate in Engineering (Manufacturing)	140
DK011	MECH	National Certificate in Engineering (Mechanical)	140
DK012	SCI	National Certificate in Science	160
Three year courses			
DK001	ELDEV	National Diploma in Electronics (Product Development)	165

Courses at: Galway-Mayo Institute of Technology (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*

Two year courses

GA002	BUSSTUD	National Certificate in Business Studies	335
GA003	STGNO	An Teastas Naisiunta sa Staidear Gno	AQA
GA004	AGRIBUS	National Certificate in Business Studies (Agri-Business)	285
GA005	OFFSYS	National Certificate in Business Studies (Office Information Systems)	300
GA006	SCI	National Certificate in Science	295
GA007	AQUA	National Certificate in Science (Aquaculture)	240
GA008	COMP	National Certificate in Computing	320
GA009	CIV	National Certificate in Engineering (Civil)	325
GA010	CONST	National Certificate in Construction Studies	285
GA011	TRON	National Certificate in Engineering (Electronic)	245
GA012	IND	National Certificate in Engineering (Industrial)	240
GA013	MECH	National Certificate in Engineering (Mechanical)	300
GA015	FURN	National Certificate in Technology (Furniture Design and Making)	‡
GA021	EUHOSP	National Certificate in European Hospitality Administration	270
GA022	HERSTD	National Certificate in Heritage Studies	310
GA023	BUSSTUDCR	National Certificate in Business Studies (Castlebar)	AQA
GA024	CONSTCR	National Certificate in Construction Studies (Castlebar)	AQA
GA025	COMPCR	National Certificate in Engineering (Computing) (Castlebar)	140
GA026	TRONCR	National Certificate in Engineering (Electronic) (Castlebar)	AQA

Three year courses

GA016	PROP	National Diploma in Property Management	330
GA017	ART	National Diploma in Art and Design	320
GA018	BUSHOT	National Diploma in Hotel and Catering Management	340

Degree courses

GA019	HOTEL	Bachelor of Arts in Hotel and Catering Management	375
GA020	MANU	Bachelor of Technology – Manufacturing Technology	325

‡   Restricted application.

AQA   All qualified applicants

Courses at: Letterkenny Institute of Technology (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*

Two year courses

LY001	AQUA	National Certificate in Aquatic Science	180
LY003	BUSSTUD	National Certificate in Business Studies	180
LY004	OFFSYS	National Certificate in Business Studies (Office Information Systems)	170
LY005	STAIRRUN	Teastas Naisiunta sna Corais Eolais Oifige	75
LY006	LEGAL	National Certificate in Legal Studies	260
LY008	CIV	National Certificate in Engineering (Civil)	120
LY009	CONST	National Certificate in Construction Studies	110
LY010	ELECCERT	National Certificate in Electronics	AQA
LY011	MECH	National Certificate in Engineering (Mechanical)	110
LY012	COMP	National Certificate in Computing	150
LY013	BIOL	National Certificate in Science (Applied Biology)	180
LY014	CHEM	National Certificate in Science (Applied Chemistry)	250
LY016	PROD	National Certificate in Design (Industrial Design)	Test ‡
LY018	OFFLANG	National Certificate in Business Studies (Office Information Systems & Lang)	145

Three year courses

LY007	EUBS	National Diploma in Business Studies/Languages & European Studies	135
LY015	GRAPHICS	National Diploma in Design, Graphics	Test ‡
LY017	FOODSCI	National Diploma in Food Science	180

‡   Restricted application

AQA   All qualified applicants

Courses at: Limerick Institute of Technology (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*

Two year courses

LC003	COMP	National Certificate in Applied Computing	250
LC004	CONST	National Certificate in Construction Studies	170
LC005	CIV	National Certificate in Engineering (Civil)	220
LC006	TRON	National Certificate in Engineering (Electronics)	190
LC007	ELEMEC	National Certificate in Engineering (Electromechanical)	AQA
LC008	CHEM	National Certificate in Science (Applied Chemistry)	AQA
LC020	BIO	National Certificate in Science (Applied Biology)	180
LC023		National Certificate in Business Studies with Computer Applications	240

Three year courses

LC009	MARKMAN	Marketing Management	AQA
LC010	ARCHTECH	Diploma in Architectural Technology	340
LC012	TELEC	Electronic and Telecommunications Technician	190
LC013	MARELEC	Marine Electronics	AQA

Degree Courses

LC017	QSUR	Construction Economics & Management (Quantity Surveying)	350
LC018	VSUR	Construction Economics & Management (Valuation Surveying)	325
LC019	CSUR	Construction Economics & Management (Building Management)	325

AQA   All qualified applicants

Courses at: Institute of Technology, Sligo (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*

Two year courses

SG101	BUSSTUD	National Certificate in Business Studies	230
SG102	FRMK	National Certificate in Business Studies (Lang. and Marketing French)	225
SG103	GEMK	National Certificate in Business Studies (Lang. and Marketing German)	175
SG104	SPNMK	National Certificate in Business Studies (Lang. and Marketing Spanish)	160
SG105	OFFSYS	National Certificate in Business Studies (Office Information Systems)	195
SG107	COMP	National Certificate in Computing	205
SG108	BUSACCO	National Certificate in Business Studies (Accounting and Computing)	155
SG201	SOC	National Certificate in Applied Social Studies (Social Care)	335
SG301	CIV	National Certificate in Engineering (Civil)	200
SG302	CONST	National Certificate in Construction Studies	160
SG303	MECH	National Certificate in Engineering (Mechanical)	140
SG304	CAPE	National Certificate in Engineering Computer Aided Precision Engineering)	145
SG305	TRON	National Certificate in Engineering (Electronics)	140
SG401	SCI	National Certificate in Science	200

Three year courses

SG131	EUROFR	National Diploma in Business Studies (European Business with French)	260
SG132	EUROGR	National Diploma in Business Studies (European Business with German)	245
SG133	EUROSP	National Diploma in Business Studies (European Business with Spanish)	145
SG134	RECMAN	National Diploma in Business Studies (Recreation and Leisure)	335
SG231	ART	National Diploma in Art	440
SG232	INDDES	National Diploma in Design (Industrial Design)	385
SG431	CHEM	National Diploma in Science (Analytical & Chemistry / Quality Control)	250
SG432	BIO	National Diploma in Science (Pollution Assessment & Control)	330
SG433	SAF	National Diploma in Science (Health Safety / Industrial Hygiene)	250

Degree Courses

SG402	ENVIR	Bachelor of Science in Environmental Science and Technology	385

‡   Restricted application

Courses at: Institute of Technology, Tallaght (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*
Two year courses			
TA001	BUSSTUD	National Certificate in Business Studies	280
TA002	COMP	National Certificate in Computing (Information Technology)	300
TA003	SCI	National Certificate in Science	280
TA004	TRON	National Certificate in Engineering (Electronics)	215
TA005	MECH	National Certificate in Engineering (Mechanical)	225

Courses at: Institute of Technology, Tralee (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*

Two year courses

TL210	ADVBUS	Advanced Certificate in Business Studies	410
TL220	BUSSTUD	National Certificate in Business Studies	230
TL260	FRENMARK	National Certificate in Business Studies (Lang. & Marketing – French)	215
TL270	GERMARK	National Certificate in Business Studies (Lang. & Marketing – German)	185
TL310	COMP	National Certificate in Computing	205
TL350	OFFSYS	National Certificate in Business Studies (Office Information Systems)	230
TL410	AQUA	National Certificate in Science (Aquaculture)	120
TL420	BIO	National Certificate in Science (Applied Biology)	215
TL440	CHEM	National Certificate in Science (Applied Chemistry)	200
TL460	PHYSEL	National Certificate in Science (Applied Physics & Electronics)	120
TL480	LEISURE	National Certificate in Science (Health & Leisure Studies)	305
TL620	CIV	National Certificate in Engineering (Civil)	190
TL630	CONST	National Certificate in Construction Studies	180
TL650	AGRI	National Certificate in Engineering (Agricultural)	225
TL670	MECH	National Certificate in Engineering (Mechanical)	150
TL680	MECHTRON	National Certificate in Engineering (Mechanical & Electronic)	140

Three year courses

TL101	FOLK	National Diploma in the Performing Arts (Folk Studies)	380

Courses at: Waterford Institute of Technology (1995)			
Course Code	*Course Details*	*Course Description*	*Cut-off points*

Two year courses

WD003	BUSSTUD2	National Certificate in Business Studies	300
WD005	CONECON	National Certificate in Construction Studies (Construction Economics)	265
WD006	ARCHTECH	National Certificate in Construction Studies (Architectural Technology)	300
WD007	CIVENG	National Certificate in Engineering (Civil)	255
WD008	SCIENCE	National Certificate in Science	300
WD009	AGSCI	National Certificate in Agricultural Science	355
WD010	CERTELEC	National Certificate in Engineering (Electronics)	200
WD011	MECH	National Certificate in Engineering (Mechanical)	220
WD012	PRODUC	National Certificate in Engineering (Production)	170
WD013	LEGALSTUD	National Certificate in Legal Studies	305
WD014	COMMCOMP	National Certificate in Commercial Computing	270
WD015	INDCOMP	National Certificate in Industrial Computing	240
WD039	HOTCATS	National Certificate in Business Studies (Hotel & Catering Supervision)	280
WD040	ENVENG	National Certificate in Engineering (Environmental)	220

Three year courses

WD018	SOCIAL	National Diploma in Applied Social studies in Social Care	335
WD019	RECMAN	National Diploma in Business Studies (Recreation and Leisure)	370
WD020	FRENMARK	National Diploma in Business Studies (French and Marketing)	320
WD021	GERMARK	National Diploma in Business Studies (German and Marketing)	240
WD022	ART	National Diploma in Art	340
WD023	DESIGN	National Diploma in Design (Communications)	325

Degree Courses

WD025	CONST	Bachelor of Science in Construction Management	330
WD026	ELEC	Bachelor of Technology in Electronics	290
WD027	MUSIC	Bachelor of Arts in Music	AQA
WD028	COMP	Bachelor of Science in Applied Computing	325
WD048	BBS	Bachelor of Business Studies	355
WD049	BBSF	Bachelor of Business Studies with French	350

‡ Restricted application

AQA All qualified applicants