The Post-Leaving Certificate Sector in Ireland:

A Multivariate Analysis of Educational and Employment Outcomes

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1. Background

The Post Leaving Certificate (PLC) Programme, or Vocational Preparation and Training Programme, has been in existence for over 20 years, having been introduced in 1985 with aid from the European Social Fund. The programme has developed a dual role. The initial emphasis was to 'provide vocational training for young people to bridge the gap between school and work' (Department of Education and Science website). However, over time, the PLC programme has also developed as a route to further education. The vast majority of entrants to the PLC programme from second-level schools have achieved the Leaving Certificate (although many 'older' entrants to the programme have not successfully completed second-level, an issue this paper considers). Since 1996, under the Higher Education Links scheme, places on 'selected' courses in the Institutes of Technology are allocated on the basis of attainment achieved in the NCVA Level 2 Awards by candidates on PLC courses. The only major review of this sector (McIver, 2003), suggested that 'PLC courses provide an important progression route to higher education through the Institutes of Technology'.

Organisation of the PLC Sector

Courses are offered in both second-level schools and more specialised further education 'centres' providing predominantly (if not solely) PLC courses. There are approximately 225 schools/centres providing PLC courses and those with at least 150 students (37 largely 'specialised' centres) account for 73% of the overall PLC enrolment. The remainder are taking courses in secondary, community, comprehensive and vocational schools. Although the bulk of courses are taken in specialised further education centres, the operation and control of PLC courses remains within the second-level sector: 'the administrative, management, staffing and ancillary support structures for the PLC sector have continued to be those of a second level school' (McIver, 2003).

Unlike for entry to higher education, there is no central application/entry point. Students join the programme by contacting the nearest Vocational Education

Committee (VEC) or schools offering PLC courses. Again in contrast to the situation for higher education entry, the Leaving Certificate Applied[1] is a suitable entry point for the vast majority of PLC courses, with the exception of a small number of courses approved by professional bodies.

Participants on PLC courses are eligible to apply for financial assistance under the PLC Maintenance Grants Scheme (introduced 1998) which provides means tested grants at rates equivalent to those payable at third level.

Although day-to-day 'control' of the PLC sector is within the second level sector, the vast majority of PLC provision is certified as Further Education by the Further Education and Training Awards Council (FETAC), under the framework of qualifications established by the National Qualifications Authority of Ireland. Most of the courses fall into Level 5 in the National Framework of Qualifications, or Level 2 from the National Council for Vocational Awards (NCVA). In terms of post-PLC education opportunities, anecdotal evidence suggests that there are limited opportunities for PLC 'graduates' to progress to higher education courses. However, under the Higher Education Links scheme places on 'selected' courses in the Institutes of Technology are allocated on the basis of attainment achieved in the NCVA Level 2 Awards by candidates on PLC courses[2]. The only major review of this sector (McIver, 2003), also suggested that 'PLC courses provide an important progression route to higher education through the Institutes of Technology'. However, they fail to identify the extent to which such progression is actually occurring.

More recently (2006), according to FETAC, 16 higher education institutions are now participating in the Higher Education Links scheme, with 19 higher education institutions participating in the Pilot Scheme, whereby most course places are open to

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[1] The Leaving Certificate Applied (LCA) is an alternative to the Leaving Certificate programme and adopts a cross-curricular approach to the preparation of students for adult and working life and emphasises holistic personal development. It was introduced into fifty schools in September 1995 and has since grown to 7,977 participants in 2002/03 ('Tuarascáil Staitistiúil, 2002/03). While students taking the LCA are not eligible for direct entry into higher education, performance in the LCA is considered for entry to most PLC courses.

[2] Since its inception almost a decade ago the scheme has expanded and broadened its progression routes to third level courses. Applicants must have obtained a full FETAC award. Currently (2006) there are thirty-five higher education institutions offering progression to a wide variety of Level 6 Higher Certificate, Level 7 Ordinary Degree and Level 8 Honours Degree Programmes.

FETAC applicants. Courses may have pre-requisite FETAC module or award requirements. Applicants are allocated a point score based on the best eight modules presented in their FETAC Level 5 or Level 6 award, with different modules carrying a range of credit values.

Anecdotally, there is evidence to suggest that many PLC colleges have developed links with UK higher education institutions and many of those who wish to progress to further study do so through these UK colleges. Ultimately, there is a clear lack of data on the extent and nature of progression opportunities for PLC 'graduates'. To what extent do PLC courses serve as an alternative route to higher and third level qualifications, or are PLC courses an alternative form of post-school education and training? These issues are central to the analyses presented in this report.

PLC courses are full-time and are mostly of one or two-years duration, with a small number of three-year courses. Courses are comprised of core modules, elective modules, general studies modules and a work experience module. Courses and course modules may be developed locally where a course provider wishes to respond to local needs and a relevant FETAC module is not available. New locally developed modules must be approved by FETAC before they are delivered. All assessment is also undertaken locally. FETAC is, however, responsible for quality assurance and the monitoring of national standards in vocational education and training programmes – external examiners are appointed by FETAC to monitor national standards.

PLC courses have developed into a wide range of disciplines, largely with the aim of supporting industry and community needs, and as such have significantly widened the scope of educational provision. As such they appear well placed to identify and fill new and emerging education and training needs in the economy. The sector has pioneered education in such areas as childcare, community care, teleservices, e-commerce, equestrian studies, sport and leisure, tourism, multimedia and music. It also provides a wide range of courses in more traditional areas such as business studies, art and craft, information technology, construction and electronics. (McIver, 2003)

Previous Studies of the PLC Sector

One major review of PLC sector has been undertaken (McIver Consulting, Report to the Steering Group to the PLC Review), but this review was based on institutional analysis (rather than student level experience and views), and was very limited in scope – it only examined 15 colleges from those serving 150 or more students, excluding all second-level schools catering for PLC students.

Two other studies provide some discussion of the role of PLC courses in Irish education – Hannan *et al.*, 2003 and Hannan *et al.*, 1998. The latter report, in comprehensively considering the experiences of participants in a range of educational and training settings, argued for the need for further expansion of the PLC sector. It provides two main arguments to support this conclusion, the first being the ability of PLCs to respond to local/regional labour market needs. In addition, the report points to the changing nature of educational provision at third level, and particularly in terms of the nature of short-term courses. The authors argue that provision of such short-duration courses is highly variable across the country and there has been an 'academic drift' over time. In this context, the report contends that PLCs can fill the gap emerging from such 'academic drift'. The report also considers the Irish further education sector in comparative perspective and concludes that the Irish vocational training and further education sector is less satisfactory than the British one, for example. It points to the recent changes in Britain, and particularly in Scotland, which provide a more unified education/training model towards which we should be moving. In this 'unified' system all general and vocational curricular tracks (including PLC-type courses) have been brought under one unified framework and centralised institutional arrangements, with parity of esteem and progression to further education/training available to all participants in vocational and educational tracks. While recent changes under the National Framework of Qualifications provide some standardisation of qualifications and a more unified framework for the bulk of participants in the education and training system in Ireland, several key issues appear to remain prominent. Importantly, questions remain over the extent to which PLC participants can and do, in practice, progress to further and higher educational qualifications *within* Ireland. The second issue which appears prominent is that of institutional status: despite arguments to amend the status of PLC courses, PLC courses continue to be operated and 'controlled' within the second level system. The

final issue of parity of esteem with other forms of post-school and higher education also remains – while PLC courses serve a large and diverse portion of education participants, there are questions over the extent to which the PLC sector receives adequate recognition for this.

This study

Given the relative neglect of the PLC sector in the research literature, this report addresses some central and key issues surrounding the role of PLC courses in Irish education and training:

- To what extent have levels of participation in the PLC programme changed over time?
- What is the profile of PLC participants in terms of gender, age, educational attainment and regional location?
- What is the impact of PLC participation on progression to further study?
- How do PLC leavers fare when they enter the labour market?

Data and Methodology

The report, drawing predominantly on a supplemented sample of the PLC sector on the 2004 Annual School Leavers' Surveys, addresses this dearth in research on the PLC sector. School leavers who exited the second-level system in the 2002/03 academic year (between September 2002 and the end of August 2003), provide the reference cohort for this study. The School Leavers' Surveys are based on a stratified random sample[3] of those leaving the official second-level system. Respondents were interviewed between 12-18 months after leaving school. The interview period for the 2004 survey was September 2004 – April 2005. The PLC Leavers were oversampled in order to provide a sufficient number of cases for a detailed analysis of their profile

[3] Because the statistics contained in this report are based on a sample, they are consequently subject to usual sampling error variances.

and circumstances. The sample size of the current survey is 3,345 respondents, of whom 1036 are PLC Leavers.

The sample was weighted to ensure representativeness of the population of all leavers, using data provided by the Department of Education and Science on gender, programme, programme year, and, for the PLC students, age group (under 21, 21-29, 40 or over). All the results presented from the 2004 SLS are based on the weighted data.

Outline of Paper

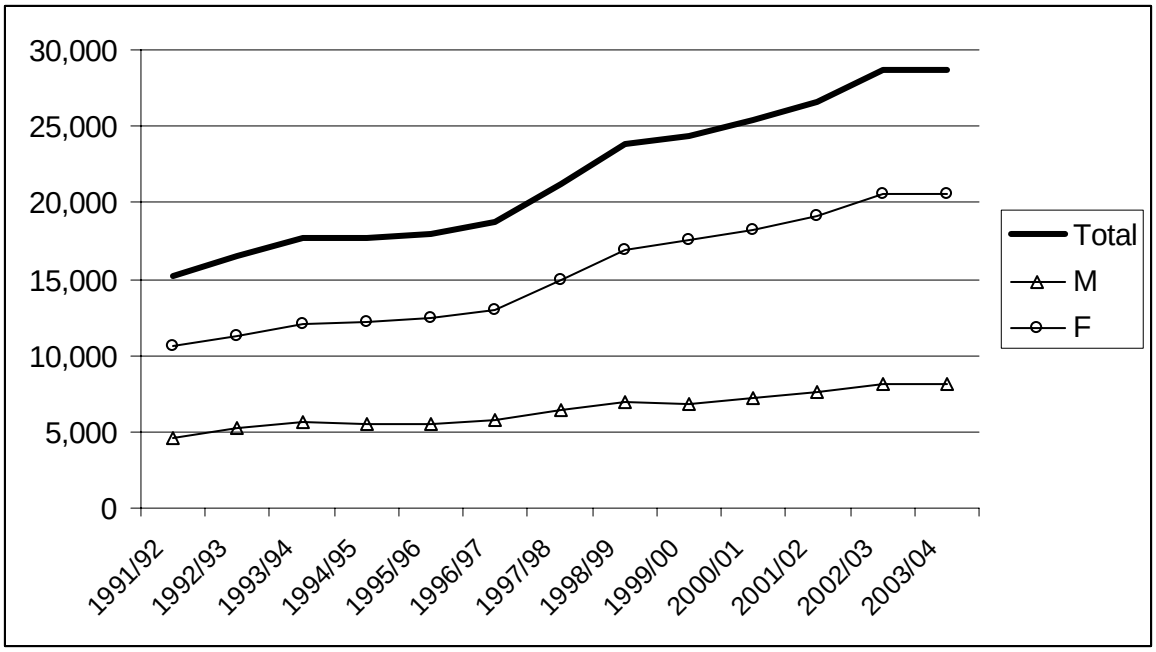
The analysis commences, in Section 2, with an examination of overall levels of participation in the PLC programme and the extent of change and expansion over time, drawing on Department of Education and Science data. The analysis also considers the composition of PLC participants in terms of gender and age, and the extent to which this has changed over time. In Section 3, we make use of the 2004 School Leavers' Survey data to examine the class and educational background of PLC participants. Section 4 examines the Educational and Employment Outcomes for PLC participants, but without controlling for other factors such as family background and qualifications. Section 5 presents the results of a set of multivariate analyses of educational and employment outcomes, controlling for factors such as qualifications and family background. The concluding section draws together the results and points to areas deserving of further examination.

2. Overview of Participation Levels in PLC Courses

Trends over time by Gender

There are currently just under 30,000 participants in the PLC programme, representing a large sector of educational provision. Figure 1 shows trends in participation in PLC courses by gender since 1991/1992. Levels of participation in the PLC programme have shown a steady increase since its introduction in the mid-80s. Since 1991 levels of participation have virtually doubled, from 15,000 in 1991/92 to over 28,000 in 2003/04.

Figure 1: Participation in PLC Courses by Gender, 1991-2004



Source: Tuarascáil Staitistiúil 1991/92 to 2003/04, Department of Education and Science

Note: Figures for the early 1990s are based on participation in both the VPT1 (post junior cycle) and VPT2 (post senior cycle) courses - for a number of years it is not possible to obtain separate figures. Hence, participation levels for the earlier years are likely to be an overestimate of participation levels in the PLC programme.

Despite considerable expansion of the PLC sector, female over-representation has remained virtually constant over time. Throughout the last decade, and despite considerable expansion in the range of PLC courses, males represent just 27-32 per

cent of PLC participants. Females have been considerably over-represented among PLC participants throughout the period, accounting for 72 per cent of participants in 2003-2004.

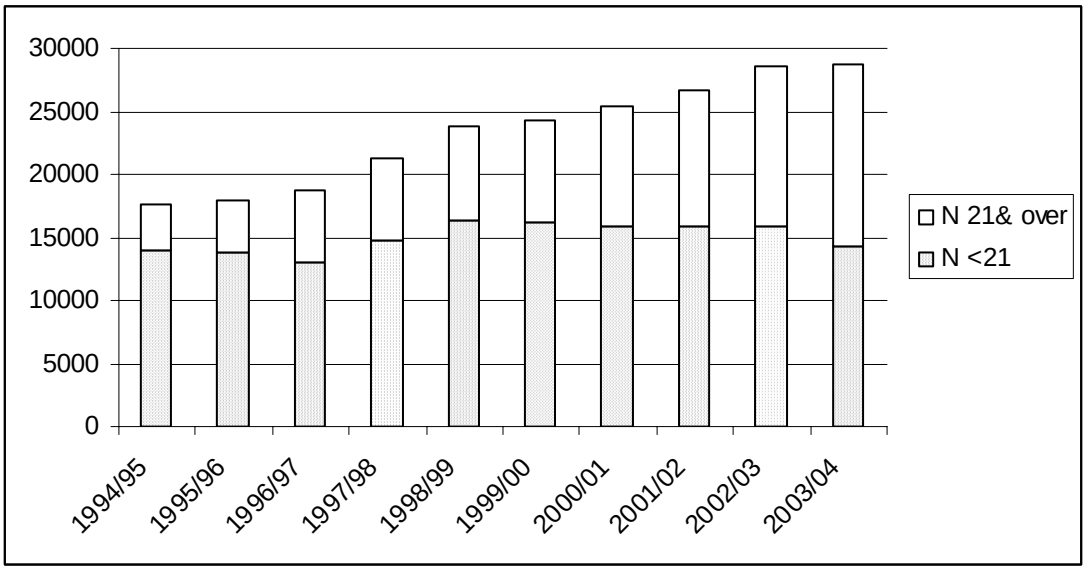
In examining the nature of PLC courses on offer and looking at the 80 different subject areas covered in the 2003 national data on PLC participants, it is clear that the majority of courses and subject areas are dominated by females. While 16 subject areas have more than 60 per cent male participation, a total of 35 subject areas have more than 60 per cent female participation. However, the figures also reveal that the bulk of larger scale courses (such as business studies, languages/ teleservices and community and health service courses) tend to be dominated by females, while courses of a smaller scale (such as engineering, technology and science) tend to be dominated by males. While 9 of the subject areas have more than 1000 participants, 7 of these have a majority of female participants. Similarly, of the 29 subject areas with more than 200 participants, 21 have a majority of female participants.

The gender imbalance in PLC participation could also be argued to reflect greater male progression into alternative post-school education and training options, particularly the apprenticeship route. Data from FÁS indicates that the vast majority of entrants to apprenticeships are male: of 6,805 apprentices registered in phase 1 of an apprenticeship programme in 2004, just 29 were female. Furthermore, the data also suggests that a considerable proportion of entrants to the apprenticeship programme left school prior to completion of the Leaving Certificate examination. This suggests that while the PLC programme seems to be catering for females (many of whom did not complete their second-level education, as we will see later), the apprenticeship system is providing alternative training for males, some of whom failed to succeed within the second-level system. The key concerns are those young people, male and female, who do not progress to any form of post-school education or training, particularly those who do not complete their second-level education (given the particular difficulties these individuals face in the longer-term, see McCoy, Smyth, 2003).

Trends over time by Age

Figure 2 shows how the age profile of PLC participants has changed over time. While the PLC/VPT programme was initially introduced to provide vocational training for school leavers prior to entering the labour market, the profile of those taking PLC courses has changed considerably since this time. No longer are PLC courses the preserve of 17-19 year old school leavers, but considerable numbers of 'older' people are now taking PLC courses.

Figure 2: Trends in PLC Participation by Age Group, 1994/5 to 2003/4

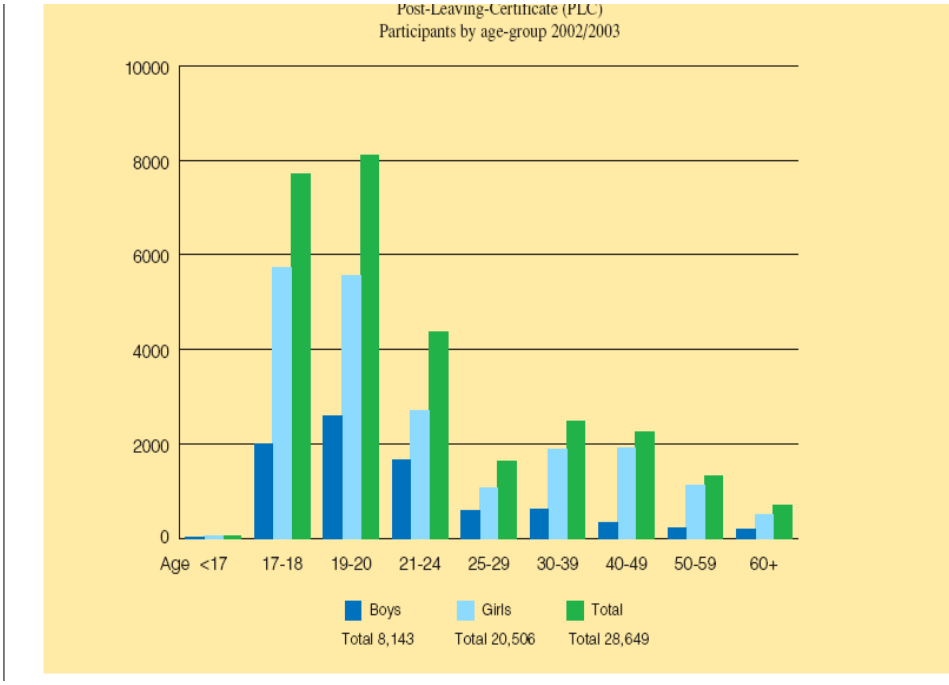


Source: Tuarascáil Staitistiúil 1994/95 to 2003/04, Department of Education and Science

It is clear that since the early 1990s there has been a steady increase in older participants (over age 21), so that by 2003/2004 PLC participants are about equally divided between the 'traditional' school leaver cohort and participants who are older. In fact, the number of 'younger' participants has remained relatively stable, at around 15,000, since the late 1990s, so that the growth in numbers since that time has been largely driven by increased participation among those over age 21. Clearly the profile of PLC participants has changed dramatically over time, with such courses now serving to bring people back into the educational system.

Figure 3 illustrates the age and gender composition of PLC participants for the 2002/03 academic year. The figure shows a broad range of age groups participating in the PLC programme, with over half of current participants over the age of 21 years. Hence, PLC courses today appear to be catering for a more diverse population, considerably broader than the traditional 17-20 year old school leaver. Older participants represent a considerable share of those taking PLC courses, and this appears to be the case particularly for females.

Figure 3: PLC Participants by Gender and Age 2002/2003



Source: Tuarascáil Staitistiúil 2002/03, Department of Education and Science

3. Profile from the 2004 School Leavers' Survey

This section draws on the 2004 Annual School Leavers' Survey to provide a profile of PLC leavers in the 2002/2003 academic year.

Family Background

In terms of family background, older and female PLC leavers tend to come from less advantaged backgrounds than younger and male PLC leavers.

Table 1 shows the profile of male and female PLC Leavers in each broad age group who come from each family background. Compared to school leavers generally, PLC leavers with one exception are somewhat less likely to come from farming or agricultural backgrounds (8-11 per cent compared to 13 per cent for all leavers). The exception is female PLC Leavers age 21 and over (22 per cent from farming or agricultural backgrounds). All PLC groups are less likely than average to come from professional backgrounds, especially the younger female PLC leavers (4 per cent, compared to 10 per cent of all leavers), which probably relates to the greater rates of entry to higher education for such professional groups. Young male and female PLC leavers are particularly likely to come from intermediate non-manual backgrounds (25 and 23 per cent, compared to 19 per cent overall), which is noteworthy given relatively low rates of entry to higher education for such groups (O'Connell *et al.*, 2006). In addition, young female PLC leavers are the group most likely to come from manual backgrounds (39 per cent compared to 33 per cent overall).

Table 1: Parental Employment by age and sex of those taking PLC courses

	Male			Female			All Leavers
	All PLC Leavers %	PLC Leaver, under 21 %	PLC Leaver, 21+ %	All PLC Leavers %	PLC Leaver, under 21 %	PLC Leaver, 21+ %	%
Father Grped Occupational Segments							
Agriculture etc.	9	8	10	17	11	22	13
Professional	9	8	9	6	4	8	10
Employer/manager	15	16	13	8	8	9	11
Other non-manual	19	25	14	19	23	17	19
Manual	31	29	32	31	39	24	33
Unemployed	6	5	6	5	6	5	6
Unknown	12	10	15	13	8	17	9
Total	100	100	100	100	100	100	100

Excluding the small number of 'Other Leavers' age 21 or over

Source: Annual School Leavers' Survey, 2004.

Examination Results

Table 2 shows the last exam results of PLC leavers compared to all school leavers. In general, PLC leavers tend to be concentrated in the middle range in terms of educational achievement, compared to leavers generally. Forty one per cent of young male PLC leavers and 42 per cent of young female PLC leavers have a pass Leaving Certificate, compared to 22 per cent of all leavers. While young PLC leavers are less likely than all leavers to have no qualifications, at the other end of the scale only 12-14 per cent of young PLC leavers have 4 or more honours in the Leaving Certificate, compared to 32 per cent of all leavers. The differences between young male and female PLC leavers in terms of exam performance are small.

Table 2: Exam Performance by Age and Sex of those taking PLC courses

	Male			Female			All Leavers
	All PLC Leavers %	PLC Leaver, under 21 %	PLC Leaver, 21+ %	All PLC Leavers %	PLC Leaver, under 21 %	PLC Leaver, 21+ %	%
Exam performance							
No quals	9	2	17	9	2	18	6
JC less 5 passes	0	1	0	0	0	0	1
JC 5+ passes	4	1	7	6	3	9	6
JC 1+ hons	3	5	1	2	2	3	4
LC less 5 passes	4	8	0	7	8	4	5
LC 5+ passes	40	41	38	38	42	34	22
LC 1-3hons	27	30	24	24	28	19	24
LC 4+hons	13	12	13	14	14	13	32
Total	100	100	100	100	100	100	100

Excluding the small number of 'Other Leavers' age 21 or over

Source: Annual School Leavers' Survey, 2004.

There is a contrast, however, between the younger and older PLC leavers with a higher proportion of the latter not having Leaving Certificate Qualifications. The older PLC leavers are more likely to have left second level with no qualifications (17-18 per cent). One quarter of older male PLC leavers and one third of older female PLC leavers have less than a pass Leaving Certificate, compared to 16-17 per cent of their younger PLC counterparts, suggesting that PLC courses are serving an important route back into education for those who failed to complete second level. At the other end of the qualification scale, about the same proportions of older as of younger PLC leavers have 4 or more honours in the Leaving Certificate (13 per cent).

Participation in PLC Courses by Region

Table 3 shows the percentage of leavers in each of the eight planning regions who leave after a PLC and the percentage who leave at other stages. It also breaks down the PLC Leavers into those who are under 21 and those who are 21 or older. Overall, the take-up of PLC courses is high in the South-East and Dublin, where 30-34 per cent of leavers are PLC Leavers, and lowest in the Midlands, where only 11 per cent

of leavers have completed a PLC course[4]. The pattern for the PLC leavers under age 21 is somewhat different, however. In general, there are more PLC Leavers who are over 21 than under 21. The pattern in the Border region is markedly different, however. Here, PLC leavers under age 21 outnumber their older counterparts (15 per cent versus 10 per cent of all leavers), and the Border is the only region where this is the case. At the other extreme is the Midlands, where older PLC Leavers outnumber PLC Leavers under age 21 by more than 2 to 1 (8 and 3 per cent, respectively).

Table 3: Region of those taking PLC courses and Other Leavers

	PLC Leaver, under 21	PLC Leaver, 21+	All PLC	Other Leaver
Region of School				
Border	15	10	25	75
Dublin	14	16	30	70
Mid East	7	9	16	84
Midlands	3	8	11	89
Mid West	6	10	17	83
South East	14	20	34	66
South West	8	13	22	78
West	11	11	22	78
Total	11	13	24	76

Row percentages. Excluding the small number of 'Other Leavers' age 21 or over

Source: Annual School Leavers' Survey, 2004.

The general picture of young PLC participants is of a group drawn largely from manual backgrounds, with Leaving Certificate results towards the middle of the range. In the next section we look at how PLC leavers compare to other school leavers in terms of progression to further education and employment.

[4] These figures suggest some relationship with rates of entry to higher education (O'Connell *et al*., 2006). Counties with lowest rates of entry to higher education are located in the south-east and Dublin and these are the counties with highest rates of participation in PLC courses. However, counties in Midland areas of the country also have below average rates of entry to higher education, although they have low rates of entry to PLC courses.

4. Educational and Employment Outcomes

In this section we look at how PLC leavers fare in terms of progression to further education or to employment. At this point we do not control for factors such as family background and educational qualifications: the issue of the 'net effect', controlling for other factors, is addressed in the next section.

Progression to Further Education

In the introduction, we noted that PLC courses have been seen as providing a route to higher education (McIver, 2003). Table 4 looks at the proportion of PLC leavers who went on to further education or training in the 12 to 18 months after the PLC course. A significant proportion of PLC leavers do so: 40 per cent of the males and 38 per cent of the females. Most of these were in full-time education, with only 3 per cent of male and 6 per cent of female PLC leavers in part-time education.

Table 4: Progression to Further Education by Males and Females taking PLC courses

	Male	Female	Total
Further education full or part-time			
No further education/training	60	62	62
Full-time	36	32	33
Part-time	3	6	5
Total	100	100	100

Column percentages. Excludes those over 21 and those leaving without Leaving Cert qualifications

Source: Annual School Leavers' Survey, 2004.

Table 5 examines the type of further education for the PLC leavers and the qualifications expected. Over three quarters of the PLC leavers in further education are taking a Third Level course (78 per cent of both males and females).

Table 5: Type and Qualification of Further Education and whether completed by Males and Females taking PLC courses after Leaving Cert

	Male	Female	Total
Further education or training, current or May 2004			
Third Level	78	78	78
Other	22	22	22
Qualification			
Bachelors or Higher	40	38	38
Diploma	26	19	21
Certificate	16	18	17
Other	12	22	19
Unknown	7	3	4
Completed further education/training?			
Still on course	91	89	90
Completed	3	8	7
Left before completion	5	3	4
Total	100	100	100

Column percentages. Includes PLC leavers under 21 in further education

Source: Annual School Leavers' Survey, 2004.

Roughly 40 per cent of both male and female students expect to attain a Bachelor's or Higher degree; 26 per cent of the males and 19 per cent of the females expect a diploma; about one in six of both males and females are aiming for a certificate; 12 per cent of the males and 22 per cent of the females are aiming for some other qualification. These qualifications are somewhat lower than those of students who went on to third level directly after the Leaving Certificate: about three quarters of the latter are studying for a Bachelor's degree or higher qualification.

In Section 5 we will return to examine this issue in more detail by asking whether PLC students appear more likely to progress to third level when other factors, such as age, region, family background and exam results, are taken into account.

Employment and Unemployment

We turn our attention in this section to the early labour market experiences of PLC Leavers and compare them to other Leaving Certificate Leavers. We include the older PLC students, those over age 21 on leaving the course, and analyse their situation separately from the younger school leavers. We exclude those leaving before the Leaving Certificate (those with no qualifications or whose highest qualifications are at the lower second level). We also exclude the very small number of Leaving Certificate Leavers who are over age 21. For brevity in the following we will use the term 'young PLC leavers' to refer to the PLC leavers age under 21 in June 2003, and 'older PLC leavers' refers to those age 21 or over. The 'Third Level' group are those who went on to further education or training at a third level college or institution. The term 'Leaving Certificate Leavers' refers to those who left after the Leaving Certificate but who did not go on to a PLC or further education or training.

Economic Status one Year On

Table 6 examines the self-defined economic status of the different groups of leavers in May 2004, one year after leaving second level. The figures allow us to ask whether the leavers are in employment, unemployed, students or trainees, have emigrated or are not available for work. For both male and female students, the Leaving Certificate leavers are most likely to be employed, and the difference is more dramatic for males (72 per cent) than for females (59 per cent in employment). This group also has the highest level of unemployment (15 per cent are unemployed for both males and females). Not surprisingly, the 'Third Level' group are most likely to be students one year later (80 per cent of males and 85 per cent of females)[5]. Non-availability for work is highest among the older male and female PLC leavers (17 per cent of males and 30 per cent of females).

Turning to a more detailed examination of the two groups of PLC leavers, we can see that they differ mainly in that the older PLC leavers are more likely to be unavailable for work, while the younger PLC leavers are more likely to be in

[5] Note that while some students will have finished the course by May 2004, others – particularly part-time students – may list their main status as 'employed' or 'not available for employment', while still on the course.

employment or, especially, to be in further education. Among the younger PLC leavers, the women are more likely than the men to be in employment (62 per cent compared to 55 per cent of the men). The level of unemployment is also somewhat higher for young male PLC leavers than for their female counterparts (10 per cent compared to 7 per cent).

Table 6: Comparison of economic status of PLC leavers and Other Leaving Cert Leavers

	PLC Leaver, under 21	PLC Leaver, 21+	Other LC Leaver, 3rd Level	Other LC Leaver	Total
Male					
Employed	55	51	14	72	39
Unemployed	10	11	1	15	7
Student	33	17	80	12	48
Unavailable for work	1	17	3	1	4
Emigrated	1	3	2	0	1
Total	100	100	100	100	100
Female					
Employed	62	52	9	59	34
Unemployed	7	7	2	15	6
Student	24	8	85	18	49
Unavailable for work	4	30	2	6	9
Emigrated	3	3	2	1	2
Total	100	100	100	100	100

Excluding 'Other Leavers' age 21 or over and those leaving without the Leaving Cert

Source: Annual School Leavers' Survey, 2004.

The young male PLC leavers are more likely to be in education (33 per cent compared to 24 per cent of females). We saw in the previous chapter that roughly similar proportions of young male and female PLC leavers went on to further education or training. By May 2004, a higher proportion of the males than the females still classify themselves as students or trainees (33 percent compared to 24 per cent). The difference arises because those studying part-time, more of whom are females, tend to classify themselves as 'employed' if they have a job, otherwise as 'unavailable for work'.

Table 7 shows the labour market participation rate and the unemployment rate (the percentage of those in the labour market who are unemployed) for the different groups of leavers. Figures are not presented for the group who go on to further education after the Leaving Certificate because, by May 2004, very few of them were

actually in the labour market so the percentage unemployed would be based on a very small number of cases.

For both males and females, those who leave after the Leaving Certificate, without going on to further education, have the highest labour market participation rates (87 per cent of males and 74 per cent of females).

Table 7: Labour Market Participation Rate and Unemployment Rate of PLC Leavers and other Leaving Cert Leavers

	PLC Leaver, under 21	PLC Leaver, 21+	Other LC Leaver
Male			
Percentage in Labour Market	65	62	87
Of which:			
Percentage Unemployed	17	22	21
Female			
Percentage in Labour Market	69	59	74
Of which:			
Percentage Unemployed	11	14	25

Excluding 'Other Leavers' age 21 or over, those leaving without the Leaving Cert & those taking further education directly after Leaving Cert

Source: Annual School Leavers' Survey, 2004.

Of those who are in the labour market (in employment or unemployed), the highest unemployment rate is for women who complete the Leaving Certificate but do not go on to further education (25 per cent). The rate is also high for their male counterparts (21 per cent) and for older male PLC leavers (22 per cent). The unemployment rates are low for young female PLC leavers (11 per cent), and moderate for young male PLC leavers (17 per cent). In terms of avoiding unemployment, then, PLC courses appear to be most effective for young female PLC participants (which may also relate to the nature of courses being taken by males and females).

Job Characteristics and Earnings

Table 8 shows the occupational groups of the male and female leavers in each category. Overall, female leavers are concentrated in service occupations (over two thirds) with a substantial representation in clerical occupations (one fifth). The male

leavers are concentrated in two groups of occupations: service occupations (about 41 per cent) and skilled and semi-skilled manual occupations (just under 40 per cent).

Again, there are fairly substantial differences between the groups of leavers in terms of their early jobs. Turning first to the men, the younger male PLC leavers have substantial representation in both service occupations (43 per cent) and skilled and semi-skilled manual occupations (32 per cent) and 12 per cent are in clerical occupations. The older male PLC leavers have a lower overall representation in manual occupations (11 per cent in skilled or semi-skilled manual jobs) but a similarly high representation in service occupations (45 per cent).

Table 8: Occupational Group of PLC leavers and Other Leaving Cert Leavers with a job in May 2004

	PLC Leaver, under 21	PLC Leaver, 21+	Other LC Leaver
Male			
Occupational Group			
Managerial/Prof	7	24	4
Clerical	12	10	3
Service occupations	43	45	24
Agriculture	2	4	3
Skilled & semi-skilled	32	11	59
Other manual	3	5	6
Total	100	100	100
Female			
Occupational Group			
Managerial/Prof	5	14	2
Clerical	26	28	13
Service occupations	63	53	75
Agriculture	0	2	2
Skilled & semi-skilled	5	3	7
Other manual	0	0	2
Total	100	100	100

Excluding 'Other Leavers' age 21 or over, those leaving without the Leaving Cert & those taking further education directly after Leaving Cert

Source: Annual School Leaver's Survey, 2004.

On the other hand, a substantial fraction of this group is in the higher status managerial or professional occupations (24 per cent). The male Leaving Certificate leavers are most concentrated in manual occupations (59 per cent in skilled or semi-skilled manual jobs), with only one quarter in service occupations and fewer than one in twenty each in clerical or managerial/professional occupations.

The young female PLC leavers are quite concentrated in service occupations (63 per cent) with 26 per cent in clerical occupations and five per cent each in professional/managerial and skilled or semi-skilled manual occupations. The older female PLC leavers also have a high representation in service occupations (53 per cent) but are not as concentrated in these jobs. Over one quarter of this group is in clerical occupations and one in seven is in a professional or managerial job. The Leaving Certificate Leavers are most concentrated in service occupations (75 per cent), with only 13 per cent in clerical occupations. Seven per cent of this group is in skilled or semi-skilled manual jobs, but very few (2 per cent) are in professional or managerial occupations.

Earnings

Table 9 compares the hourly gross earnings in May 2004 of the different groups of leavers who had a job at that time. Overall, the hourly earnings tend to be highest for the older PLC leavers, with the younger PLC leavers earning more than the Leaving Certificate Leavers. The gap in terms of median hourly earnings between the young PLC leavers and the Leaving Certificate Leavers is €0.88 for men and €1.07 for women.

The national minimum wage in 2004 was €7.65 per hour for an experienced (2 or more years) adult worker, or €6.12 per hour in the first year of employment for a person over age 18. Lower rates may apply to employees who are over 18 and undergoing a course of structured training or directed study in the workplace. Thus, the receipt of earnings below the national minimum could indicate either that the person has only recently started work or that they are receiving training (such as an apprenticeship) related to their work.

Table 9: Hourly Earnings Category and Median of PLC leavers and Other Leaving Cert Leavers with a Full-Time Job in May 2004

	PLC Leaver, under 21	PLC Leaver, 21+	Other LC Leaver
Male			
Hourly Earnings category			
Under €6.00	12	3	24
€6.00 to €7.49	10	24	20
€7.50 to €8.49	29	10	13
€8.50 to €9.99	22	21	23
€10.00 and over	27	42	20
Median € per hour	8.53	9.00	7.65
Female			
Hourly Earnings category			
Under €6.00	6	6	18
€6.00 to €7.49	17	5	31
€7.50 to €8.49	26	20	19
€8.50 to €9.99	27	28	18
€10.00 and over	23	42	14
Median € per hour	8.57	9.11	7.50

Excluding 'Other Leavers' age 21 or over, those leaving without the Leaving Cert and those taking further education directly after Leaving Cert.

Source: Annual School Leavers' Survey, 2004.

Nevertheless, the table shows clearly that young PLC Leavers are much less likely than Leaving Certificate Leavers to have earnings that are below the national minimum, particularly in the lowest category (under €6 per hour). Nearly one quarter of male Leaving Certificate Leavers and 18 per cent of female Leaving Certificate Leavers have earnings below €6 per hour. The corresponding figures for young PLC leavers are 12 per cent for males and 6 per cent for females. Forty-four per cent of male and 49 per cent of female Leaving Certificate leavers earn less than €7.50 per hour, compared to 22-23 per cent of the young male and female PLC leavers. The median hourly earnings for Leaving Certificate Leavers is €7.65 per hour for males and €7.50 for females, compared to €8.53 per hour for young male and €8.57 for young female PLC Leavers.

The earnings of older PLC Leavers tend to be higher than for both of these groups because, on average, they are more likely to have greater labour market experience. The median is €9.00 for males and €9.11 for females. Very few earn less than €6.00 per hour (3-6 per cent) and a smaller fraction earns less than €7.50 per

hour (27 per cent of older male PLC leavers and only 11 per cent of older female PLC leavers). The difference between the older male and female PLC leavers is likely to reflect the fact that more of the females in this group are over thirty while more of the males are in their twenties. As a result, the females are likely to have more labour market experience, on average.

We will return to this issue in the next section where we ask whether the apparent early career earnings advantage of PLC leavers persists when we control for other characteristics such as gender, age, family background and education.

5. Multivariate Analysis of Employment and Educational Outcomes for Leavers Under Age 21

We begin by examining the progression of school leavers to further education, employment, or unemployment one year on (May 2004), when other characteristics are controlled. We focus on school leavers under age 21 since the factors associated with employment and educational outcomes are likely to differ for older PLC participants. Since we are looking at a number of possible outcomes (employment, unemployment, further education or 'not in labour market'), we use a multinomial logit model. This is the appropriate method when examining the impact of a range of background factors (such as age, gender, family background and qualifications) on a series of discrete outcomes. The outcomes examined are based on the person's self-described main economic status in May 2004:

- In employment (reference category)
- Unemployed
- Student
- Other (includes those who emigrated and those not in the labour force)

Table 10 shows the result of this model. The figures in the table are the 'relative risk ratios', compared to being at work (the reference category). Figures greater than 1 indicate that the odds of this outcome are greater than the odds of being at work, while figures less than 1 indicate that the odds of this outcome are less than the odds of being at work. Thus, the figure of 0.64 for 'PLC Leaver under 21' and 'Unemployment', shows that for PLC leavers under 21, the odds of being unemployed rather than being at work are 64% of the odds of those of Leaving Certificate leavers (the reference category). On the other hand, when other factors are controlled, the odds of unemployment versus employment for women are about 34% higher than for men, as shown by the figure of 1.34 for 'Female' and 'Unemployed'. Only results that are statistically significant are shown in the table. The results of the models will be discussed under a number of headings below.

PLC and Other Leavers

Compared to other Leaving Certificate Leavers (the reference category), those who participate in PLC Courses are less likely to be unemployed and are much less likely to be students in May 2004. This effect persists when we control for gender, age, region, family background and exam results. Those who leave before the Leaving Certificate, not surprisingly, are least likely to go on to further education. Somewhat surprisingly, they are not more likely than Leaving Certificate leavers to be unemployed, but the bulk of the impact of early leaving is being captured by the variables measuring qualifications, as we will see below.

Table 10: Model for Economic Status in May 2004 of PLC and other Leavers (Table shows statistically significant relative risk ratios only)

	Log likelihood = -2605.7804 Pseudo R2 = 0.2319			
	(Reference outcome: At work)	***Unemployed***	***Student***	***Not in LF***
Type of leaver	PLC leaver, under 21	0.64	0.34	
(reference=Leaving cert)	Pre-Leaving Cert		0.11	0.24
Gender and age	Female	1.34	2.33	3.09
	Age			0.73
	Age squared			1.0055
Region (reference=Dublin)	Border			
	Mideast	0.65		
	Midlands			
	Midwest			
	Southeast			
	Southwest			
	West	0.52		
Father's Occupational Group	Agriculture etc.		2.20	
(ref.=Manual)	Professional/managerial		4.26	2.12
	Other non-manual		2.05	
	Unemployed	2.53	1.67	
	Unknown	1.70		
Exam Results	Junior Cert	0.26	0.55	0.19
(reference=no quals)	Leaving Cert, <5 passes	0.26	0.31	0.04
	Leaving Cert 5+ passes	0.16	0.24	0.04
	Leaving Cert 1-3 honours	0.13		0.07
	Leaving Cert 4+ honours	0.14	2.72	0.17
	Quals unknown	0.15	0.25	0.08
Skipped lessons? (ref.=no)	Skipped lessons		0.64	
Job while at school? (ref.=no)	Held part-time job at school	0.49	0.73	0.42
	Held part-time weekday job		0.67	
Has disability? (ref.=no)	Has a disability	3.03	2.57	10.03

Base: All Leavers under age 21 (N=2816)

Coefficient shows the change in relative odds of being unemployed/student/not in labour force compared to work for a unit increase in the independent variable.

We saw in the previous section that about one third of PLC leavers do go on to third level education. However, the results here suggest that when other factors are controlled, PLC courses tend to be an alternative, rather than a route, to third level education.

Gender and Age

Women are more likely than men to be unemployed, to go on to further education and to be outside the labour force. There is no overall difference between women and men in the probability of being unemployed. However, women are more likely to take up a PLC course and to remain in school to complete the Leaving Certificate. Both of these are associated with a reduced unemployment risk. When these factors are controlled, we see that the underlying risk for women is higher. In other words, if women had the same level of PLC participation and Leaving Certificate completion as men, we would observe a higher unemployment rate among women than among men.

Women are more likely than young men to go on to further education and the gender difference remains relatively stable as controls are introduced into the model. They are also more likely to be unavailable for work.

There is no direct effect of age on the odds of being unemployed or going on to further study, but older leavers are more likely to be unavailable for work. This is a non-linear relationship, suggesting that the impact is mainly due to the situation of the older leavers in the under 21 age range.

Region

School leavers in the Mid-East and West have lower odds of being unemployed than those in Dublin. Otherwise there are no significant differences by region. Note that this refers to the region where the school leaver attended school, rather than to the region where they currently live. While recent research (O'Connell, *et al*., 2006) found regional variation in rates of entry to higher education, such difference are not apparent when we control for social background and educational attainment/examination performance.

Family Background

The odds of being unemployed rather than at work are higher for leavers where the father is unemployed or where the occupation of the father is unknown than for the reference group (those from manual backgrounds). This effect is found even when the school leaver's level of educational achievement is controlled.

Those from farming or professional/managerial backgrounds are more likely than those from manual backgrounds to go on to further education, while those whose father is unemployed are also more likely to do so – a somewhat surprising result. Those from professional or managerial backgrounds are more likely to be in the 'other' category. This reflects the higher propensity of this group to have emigrated: they are slightly less likely than those from other backgrounds to be 'unavailable for work'.

Exam Results

Compared to those with no qualifications (the reference category), the risk of unemployment is lower for all levels of qualification. We saw above that those leaving before the Leaving Certificate were substantially less likely to go on to further education: the relative risk ratio is almost 90 per cent lower than for those with the Leaving Certificate. In addition to this, there is a further strong relationship between exam results and progression to further education: those with 4 or more honours in the Leaving Certificate are significantly more likely to go on to further education, while those with other levels of qualification (Leaving Certificate with less than four honours, Junior Certificate) are less likely to do so.

A control was also included for skipping lessons while in school, on the assumption that those who skipped lessons may be less motivated or less interested in school. This has a significant impact on progression to further education, in that the odds are about one third lower for those who skipped lessons in school.

Having a job while at school

Having a part-time job while at school is associated with a lower risk of unemployment, as found in earlier work (McCoy and Smyth, 2004). Also, having a

job while in school, especially if the job is on weekdays, is associated with reduced odds of going on to further education (with part-time work having the effect of pulling school leavers into the labour market, ibid).

Disability

The model also includes a control for presence of a disability. This is based on a set of items:

> *Do you have any chronic physical or mental health problem, illness or disability?*
>
> *Are you hampered in your daily activities by this physical or mental health problem, illness or disability?*

Those answering 'Yes' to both items were considered to have a disability. Those with a disability have an increased odds both of being unemployed (three times the odds) and of progressing to further education (2.6 times the odds) compared to being at work. They also have a dramatically increased risk (10 times the odds) of being unavailable for work. The pattern here suggests that, for school leavers with a disability, the barriers to entering employment are significant, while their entry to further education is facilitated.

Caveat

The results here only examine the situation of the school leaver one year after leaving school. Some leavers may be likely to return to third level education or to enter employment at a later stage.

6. Multivariate Analysis of Earnings

The next set of models examines the early career earnings for those leavers who had a job by May 2004. Again, the analysis focuses on those who were under age 21 on leaving the second level system. The question we seek to answer is whether there is evidence that PLC leavers benefit in terms of earnings. It should be kept in mind, however, that a substantial proportion of the school-leaving cohort is in further education.

While a classic earnings equation would control for selection into the labour market using variables such as marital status and presence of children to identify the selection equation, these variables do not work for this predominantly young-adult group. Very few of the school leavers will be married or have children at this stage. The approach to identifying the selection into employment was to make use of variables that are not empirically associated with hourly earnings, but that might be expected to be associated with being in employment: having had a job while at school and skipping lessons while at school. This approach does result in the expected increase in significance of level of qualification in predicting earnings compared to the OLS model without controlling for selection.

The model is based on an OLS regression equation for hourly earnings with a selection term (Heckman, probit) to control for selection into employment. The results are shown in Table 11. Note that the coefficients for the wages model are OLS regression coefficients while those for the Selection model are probit coefficients. As before, only the statistically significant effects are shown. The findings are discussed in the following.

PLC and Other Leavers

We saw in Section 4 that PLC leavers enjoy an advantage in terms of hourly earnings. When we control for gender, age, family background and qualifications, however, this advantage disappears.

Gender and Age

Those who identify their main status in May 2004 as 'student' are both less likely to work and to earn less than their counterparts. The lower earnings are undoubtedly due to the casual nature of the work done by students.

When we control for job type (particularly whether participating in an apprenticeship), women's earnings tend to be lower than those of men, by about €0.75 per hour. Women are also less likely to be at work, as can be seen from the significant coefficient on the selection equation. This is partly due to the fact that they are more likely to go on to further education.

Table 11: Model for Gross Hourly Wages in May 2004.

		Wages	***Selection***
Type of leaver	PLC leaver, under 21	ns	ns
(reference=Leaving cert)	Student	-1.82	-0.75
Gender and age	Female	-0.79	-0.21
	Age	0.45	ns
	Age squared	ns	ns
Job Training? (Ref.=no)	Receiving on the job training	ns	---
Apprentice? (Ref=no)	Apprentice	-1.58	---
Part-time Job? (Ref.=no)	Part-time job	ns	---
Region (reference=Dublin)	Border	-0.96	ns
	Mideast	ns	-0.21
	Midlands	ns	ns
	Midwest	ns	ns
	Southeast	-0.77	ns
	Southwest	ns	0.22
	West	ns	ns
Father's Occupational Group	Agriculture etc.	ns	ns
(Ref:=Manual)	Professional/managerial	ns	-0.18
	Other non-manual	ns	ns
	Unemployed	ns	ns
	Unknown	-1.08	-0.33
Exam Results	Junior Cert	2.39	0.73
(reference=no quals)	Leaving Cert, <5 passes	3.75	0.88
	Leaving Cert 5+ passes	3.35	0.92
	Leaving Cert 1-3 honours	3.38	0.92
	Leaving Cert 4+ honours	4.07	1.02
	Unknown quals	2.90	0.63
	Has a disability	-2.06	-0.65
Has disability? (ref.=no)	Skipped lessons	---	ns
Skipped lessons? (ref.=no)	Held part-time job at school	---	0.25
Job while at school? (ref.=no)	Held part-time weekday job	---	ns
Constant	Constant	ns	-1.72

Base: selection equation: all cases under 21 (2832); wae equation: those at work (787).
LR test of indep. eqns. (rho = 0): chi2(1) = 49.35 Prob > chi2 = 0.0000

Earnings increase with age, even within the relatively narrow age range of the under 21 sub-sample examined here. As noted above, this is partly due to the impact of minimum wage legislation on the earnings of these predominantly young workers, but it is also likely to be capturing elements of previous labour market experience.

Job Type

The earnings of those on apprenticeships tend to be significantly lower (by about €1.58 per hour), and this gap persists even when family background and exam results are controlled. Under minimum wage legislation, jobs involving a course of structured training or directed study that is authorised or approved of by the employer have a lower national minimum wage than 'regular' jobs. The expectation is that earnings will increase rapidly once the training is complete. However, there is no impact on earnings of less formal on-the-job training.

Hourly earnings of part-time workers are not significantly lower, perhaps because for this age group, most part-time work is done by students and we have already controlled for the casual nature of student jobs in the model.

Region

Hourly earnings are lower in the Border and South-East than in Dublin (the reference category). The coefficients for the selection equation also reveal that those in the Mid-East are less likely than Dubliners to be at work, while those in the Southwest are more likely to be at work.

Family Background

Those from professional or managerial backgrounds are less likely to be at work than those from manual backgrounds (because of their high rate of participation in further education). Those students for whom the father's occupation is unknown are also less likely to be at work, though for different reasons: we saw in Table 10 that this group has a higher risk of unemployment. The only group whose earnings differ significantly from those from manual backgrounds are those whose father's occupation is unknown, for whom earnings tend to be lower.

Exam Results

We saw earlier that exam results were important in predicting whether school leavers went on to third level education and in predicting unemployment. Compared to those with no qualifications, all other students are more likely to be at work and, once at work, to have higher hourly earnings. The contrast in hourly earnings, compared to those with no qualifications, increases as level of education increases: from €2.39 per hour for those with Junior Certificate to €4 per hour for those with four or more honours in the Leaving Certificate.

Disability

We saw from the previous analysis that school leavers with a disability were less likely to be at work. The analysis in Table 11 shows that those with a disability who do have a job are also likely to earn less (by about €2.06 per hour).

7. Conclusions

Findings

The analysis in this report highlights a number of features of the PLC sector in Ireland. The sector has been growing in importance since its inception in 1985. Most participants have been female, outnumbering males by about two to one. The analysis has also pointed to the changing profile of PLC participants over time. While the gender breakdown has remained relatively stable, since the early 1990s, the bulk of the growth in participation has been among those over age 21. This points to an emerging role of the PLC sector in providing a route to 'second chance' education and lifelong learning.

For the younger participants, PLCs have been more important as a means of successfully bridging the transition from school to work than as a route to further education. PLCs have been successful in helping participants avoid unemployment. However, when background and qualifications are controlled, PLCs appear to function more as an alternative, rather than a route, to further education.

Future Research

A number of areas emerged from the present analysis that are worthy of further exploration. Given the expansion of PLCs among the over-21 age group, we need to look in more depth at the role played by PLCs in the 'reintegration' of adults into the workforce after a break from employment or period of unemployment. The number of PLC participants who are over age 21 is quite significant, particularly when compared to the numbers in more formally defined 'second chance' education programmes such as VTOS. In 2003/2004, over 14,000 participants in PLC programmes were over age 21, compared to less than 5,700 participants in the VTOS scheme.

Another issue that emerged in the present analysis is the marked regional differences in the participation in PLC courses. Not only are there large regional differences in the level of participation in PLC courses, but also in the relative numbers of 'older' and 'traditional leaver' participants. As well as reflecting differences in rates of entry to third level courses, these differences more than likely reflect differences in provision and may be linked to different approaches by the

VECs, who remain in control of the PLC programmes. This leads to the question regarding the extent to which such differences are positive and adaptive responses to local training needs, or the result of more contingent factors. It also points to the possible transfer of experience and best practice that could take place between VECs in terms of strategies for enhancing the effectiveness of PLC programmes.

A final issue worthy of further exploration is the low take-up of PLC courses by younger male school leavers relative to their female counterparts. A large part of the difference between take-up of older men and women may be related to the needs of women returning to the labour force after a break to care for children.

This is not the case for younger school leavers, however. Part of the explanation for the lower take-up of PLC places by young men is that more young men than young women participate in apprenticeship schemes – in fact the vast majority of participants in the apprenticeship programme are male (figures from FÁS indicate that of 6,805 apprentices registered in phase one in 2004, just 29 were female). Apprenticeships and PLC courses are alternatives that may fulfill similar purposes in preparing young people for the labour market. In fact, PLC courses and apprenticeship places seem to be catering for similar numbers of female and male school leavers, respectively.

However, the two types of scheme appear to differ in the extent to which they reach young people from disadvantaged backgrounds. PLC courses seems to be more effective in reaching young women from less advantaged backgrounds than are apprenticeships in reaching their young male counterparts. We saw that young female PLC participants tended to come from less advantaged family backgrounds than their male counterparts. Given the success of the PLC programme in bridging the transition from school to work, it is worth asking what can be done to encourage a higher take-up among young men, particularly those from less advantaged backgrounds and with average or below average levels of academic achievement. Furthermore, given the serious price paid for educational failure in Ireland, particularly in a European context (see McCoy, Smyth, 2003), the important role of the PLC programme, and indeed the apprenticeship programme, should not be underestimated, particularly in terms of boosting the skills and qualifications of those whose initial experiences in the education system are less successful.

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