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Gender differentiation in education and early labour market transitions: A comparative analysis

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Introduction

The period since the 1980s has seen a remarkable expansion of educational participation among young women across Europe (Müller and Wolbers, 1999; OECD, 2000). However, gender differences in educational participation and early labour market experiences have rarely been placed in the context of institutional variation in education, training and labour market systems. Although there are certain cross-national similarities in the pattern of gender differences, particularly in relation to industrial and occupational segregation, gender differences tend to be constructed within specific social, economic and cultural contexts (see, for example, Bradley, 1989; Connell, 1987; Crompton and Sanderson, 1990; Rubery and Fagan, 1995; Walby, 1988).

This paper draws on work completed under the Comparative Analysis of the Transitions from Education to Work in Europe (CATEWE) project to examine education and labour market outcomes by gender over the 1980s and 1990s among school-leavers in three countries: Ireland, the Netherlands and Scotland. Analyses in this paper develop upon a previous analysis of cross-national gender differences at one point in time (Smyth, 2000).

Among the study countries, the Netherlands represents a clear example of track differentiation (between academic and vocational courses, and among vocational courses) within the upper secondary school system. In the Irish and Scottish systems, there is a considerable degree of differentiation by stage and within stage (for example, by examination grades). While the Irish system is general in orientation, students can differ in the subjects they take and the consequences of such 'informal' differentiation are examined later in the paper. In addition, an increasing proportion of young people in the Irish secondary school system take vocational (Post-Leaving Certificate) courses within upper secondary education. Thus, it is possible to examine the way in which less rigidly-differentiated vocational and academic tracking in the Irish context compares with more highly institutionalised tracking in the Dutch context. Like Ireland, the Scottish secondary school system is general in orientation with differentiation by stage and examination results. It is more difficult to examine the existence of 'informal' tracking in the Scottish context. Students differ in the subjects they take but the nature of available data means that we cannot identity the prevalence of distinct 'vocational' qualifications over time. For this reason, it is not

possible to look at differences among Scottish students over time in the types of courses they have taken.

Two sets of hypotheses are tested in this paper:

1. The type of differentiation evident within the education/training system will influence the nature of gender differences in educational outcomes. More specifically:
    - In systems with a high level of track differentiation (such as the Netherlands), clear gender differences are likely to be apparent in the *type* of education received by young women and men.
    - In more general systems, gender differences are more likely to be apparent in the *level* of education received or in examination performance within educational levels. There is no a priori basis for specifying whether young women or men will have higher levels of educational attainment within general systems. In certain countries, the level of educational attainment has expanded disproportionately among young women in recent years (see OECD, 2000) although it seems more likely that this has been linked to wider socio-economic change rather than to systemic reforms *per se*.
2. The type of differentiation evident within the education/training system will influence the nature of gender differences in transition outcomes. More specifically:
    - Industrial and occupational segregation by gender will be more evident in track-differentiated systems if strong gender differences are apparent in subject/track take-up within secondary education.
    - In track-differentiated systems, gender segregation in labour market outcomes will tend to be mediated by the type of course taken (whether predominantly male, predominantly female, or mixed). Thus, young women will enter female-typed occupations or industries because they have taken part in vocational courses oriented towards such outcomes.
    - In contrast, in more 'general' systems, gender differences will arise in the interaction between occupational choice and employer preference on entry to the labour market. Thus, direct gender effects on industrial and/or occupational allocation should be stronger in general than in track-differentiated systems.

Data and methodology

Analyses in this paper use an integrated comparative database on school-leavers developed as part of the CATEWE project. The project involved the development of three comparative databases: a 'current' database (comparing school-leavers in France, Ireland, the Netherlands, Scotland and Sweden at a recent point in time), a time-series database (comparing school-leavers in Ireland, the Netherlands and Scotland over the 1980s and 1990s) and a longitudinal database (comparing Irish and French school-leavers over their first five years in the labour market). This paper draws on the time-series database, developed to explore the effects of changes in institutional and labour market contexts on transition processes over time.

Because of the different timing of each survey and the fact that the Dutch survey was initiated later than those in other countries, a different number of time-points is available for each of the countries. The surveys incorporated into this database are: Ireland (1980, 1985, 1989, 1993 and 1997), the Netherlands (1989, 1993 and 1997), and Scotland (1979, 1985, 1989, 1993 and 1997). Data relate to the position of young people approximately one to one and a half years after leaving school.

There were a number of advantages to constructing an integrated comparative database rather than relying on 'side by side' analyses of data separately for each country. Firstly, such a database allows us to directly test cross-national differences controlling for the characteristics of school-leavers. Thus, we can test whether gender differences are greater in a particular country, for example. Secondly, attempting to construct variables which can be used for each of the countries means that the central concepts (especially those relating to education and labour market outcomes) must be clarified and measures derived which will accurately assess cross-national differences and similarities (Brannen, Smyth, 2000).

The construction of cross-nationally equivalent variables was far from unproblematic, however. Particular difficulties arose in relation to finding a common classification for educational and occupational variables.

The CASMIN measure of education is frequently used in cross-national studies. However, the use of such a measure is somewhat problematic for our purposes. Firstly, this measure is more commonly applied to the adult population (who have usually 'completed' their education/training). School-leavers in our sample, however, are often still participating in education or training and therefore the CASMIN

measure does not necessarily give a reliable indication of their eventual destination. Secondly, the same categories do not exist in all of the participating countries, making cross-national comparison more difficult. Thirdly, the nature of the measure means that often school-leavers are highly concentrated in particular categories. This was especially evident in the Irish context and it was clear that the measure ignored some of the dimensions considered important (such as grades achieved). For these reasons, it was decided to include a range of dimensions of educational background in the database(s), including:

- Educational level (CASMIN)
- Age on leaving school
- Educational level (a schema developed for a previous Leonardo project which combines stage left with whether qualifications were achieved)
- Curricular track (vocational/academic)
- Grades received (for those in Ireland and Scotland; and on academic tracks in the Netherlands)
- Subjects/ courses taken.

Due to the absence of information on grades in Ireland for 1980, this paper focuses on three measures of educational outcomes: upper secondary completion[1], curricular track in upper secondary (vocational v. academic) and type of vocational track taken (predominantly male, predominantly female or mixed/neutral). Upper secondary completion refers to sitting the Leaving Certificate in Ireland, attempting Highers in Scotland or taking HAVO, MBO or VWO exams in the Netherlands. Vocational tracks incorporate MBO leavers in the Netherlands while in Ireland they refer to those who have taken Post-Leaving Certificate vocational courses or to those who have 'specialised' in vocational subjects in the Leaving Certificate (by taking two or more such subjects). Type of vocational track is decided on the basis of the gender composition of that track within each particular country. More complex measures of educational attainment yield greater insight into cross-national differences (see McCoy, 2000) and it is hoped to investigate the use of other such measures in future analyses.

[1] The use of the term 'completion' is somewhat problematic in the Scottish context since students can take upper secondary qualifications (Highers) over two years. Here 'upper secondary completion' refers to those who attempted upper secondary qualifications rather than leaving before this stage.

As with education, it is difficult to derive a cross-nationally comparable classification of occupations. The Erikson-Goldthorpe (EGP) social class schema is quite commonly used for comparative analyses. However, it has some disadvantages for our purposes, in particular the fact that there is a high concentration of school leavers in a small number of class groupings. This may lead us to ignore important differences among school leavers in their occupational experiences. For this reason, it was decided to include a range of employment characteristics in the database, including:

- Full/part-time employment
- Permanent/temporary contract
- Social class (EGP schema)
- Occupational status (based on a cross-nationally comparable measure of status developed by Treiman and Ganzeboom)
- Occupational segment
- Industrial sector
- Industrial segment
- Earnings (country-specific measures due to significant differences between countries).

Analyses in this paper concentrate on four aspects of employment outcome: whether part-time or full-time; industrial sector; social class; and occupational status.

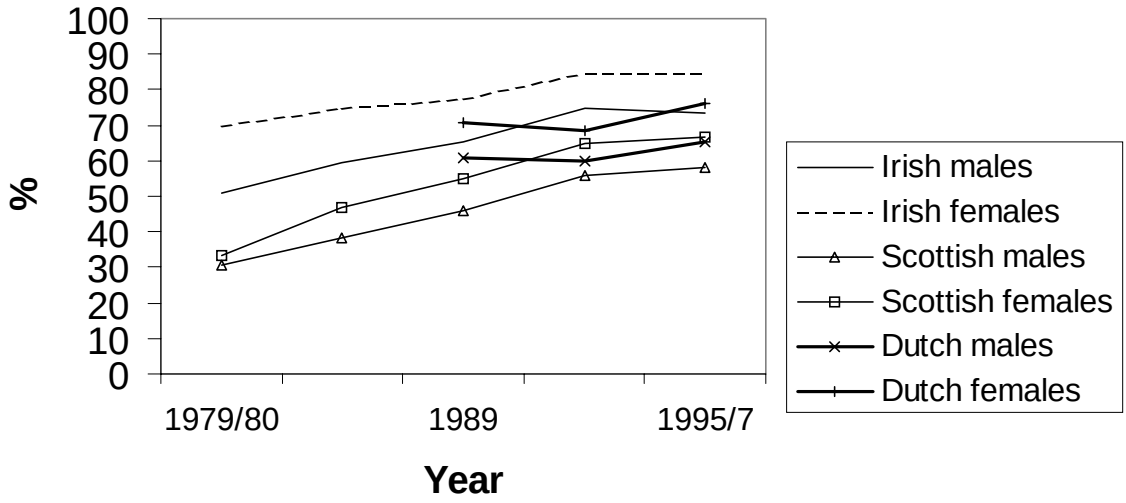
The design and construction of the time-series database created a number of additional difficulties. Firstly, some information was not available for certain years in the time-series. Earlier surveys in Ireland and the Netherlands collected more limited information with additional questions gradually added over time. For example, information on school leavers' performance/grades was not collected for the earliest time-point in the Irish time-series data. Secondly, changes took place in the way in which questions were phrased within the surveys. Where possible, categories were recoded to ensure consistency across time. Where serious discrepancies arose as a result of such changes, certain variables had to be treated as 'not available' for particular time-points. Thirdly, changes took place over time in the way in which responses were classified. This is particularly evident in relation to occupational and industrial classifications which changed over time in all three countries. Often no

'mapping' existed between old and new classification schemas so such mappings had to be constructed specifically for the purposes of the project.

The constraints of the database cause some difficulties in exploring cross-national differences in transitions over time. For this reason, analyses of the whole period (early 1980s to mid/late 1990s) can only be carried out for Ireland and Scotland. Separate analyses are carried out on Ireland and the Netherlands for the period 1989 to 1997 in order to contrast formal and informal track differentiation in the two systems.

Educational trends by gender

Figure 1: Upper secondary leavers



The three countries exhibit quite different trends in educational participation and in gender differentiation in educational attainment (see Figure 1):

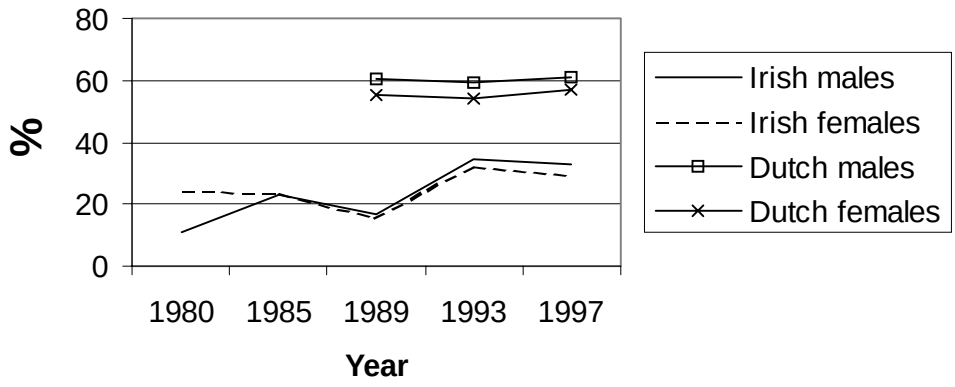
1. Scotland shows a widening gender gap (in favour of females) in educational attainment over time, in the context of growing levels of upper secondary completion among both males and females.
2. Ireland shows a slight narrowing of the gender gap (with males catching up slightly) in educational attainment over time, in the context of rising educational participation levels.
3. The Netherlands shows relative stability in overall educational attainment levels and in the pattern of gender differences, albeit over a shorter time period.

The gender gap in favour of females is apparent in all three countries but is widest in Ireland.

For Ireland and Scotland, it is possible to examine the potential interaction between gender and social class background in shaping educational attainment levels. Unfortunately, due to the absence of information on parental characteristics, this analysis is not possible for the Dutch sample. Even controlling for parental background, educational attainment is higher among females than males, with a wider gap in the Irish context (Table 1). The pattern of increase over time in educational attainment evident in Figure 1 is somewhat attenuated when social class background is taken into account. In other words, some of the educational growth reflects a shift in the class composition of the relevant Irish and Scottish populations towards the increasing representation of class categories with traditionally higher levels of educational participation.

Educational attainment patterns are sharply differentiated by social class with the highest levels of upper secondary completion evident among the service class and the lowest among the semi/unskilled manual group; those in the service class are eight and a half times more likely to take upper secondary examinations than those from semi/unskilled manual backgrounds, all else being equal (Table 1). The relative differences in attainment by class are similar in Ireland and Scotland. There is no evidence of any reduction in class differences in educational attainment over time in either country, a pattern which is consistent with previous single-country analyses (see Smyth, 1999). Having at least one parent in paid employment is positively associated with staying on to upper secondary level in Ireland and has become increasingly important in Scotland over time. Interestingly, the 'returns' to social class membership appear to be lower for females than for males, that is, female educational attainment is somewhat less sharply differentiated by socio-economic background, although class differences among females remain substantial. This pattern may reflect a ceiling effect, given extremely high levels of participation among (certain groups of) young women.

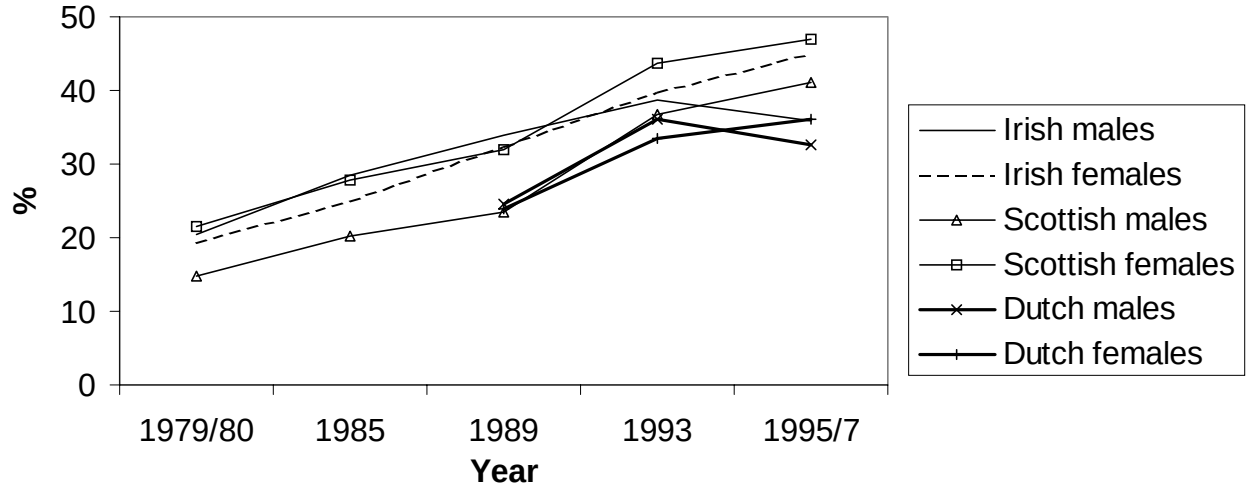
Figure 2: Upper sec. vocational track



Gender differences are also apparent in the type of education received by young people in Ireland and the Netherlands. When all school-leavers are considered, young men are much more likely to have taken a vocational track than young women, with more marked gender differences in Ireland than the Netherlands. However, when only upper secondary leavers are considered, gender differences in the type of track taken are less marked (see Figure 2). Dutch males are somewhat more likely to take an upper secondary vocational track than Dutch females, although the Dutch female level is significantly higher than that found among Irish males. There has been some increase over time in Ireland in the proportion taking vocational tracks with the expansion of Post-Leaving Certificate courses. Among those taking vocational tracks, there are marked gender differences in the type of subject taken in both Ireland and the Netherlands. In order to explore the interaction between educational segregation and industrial/ occupational segregation, courses have been divided into 'male' (more than two-thirds of participants are male) and 'female' (more than two-thirds of participants are female) with the remainder of courses designated as 'mixed'.

Participation in post-school education

Figure 3: Post-school education



As well as a growth in secondary completion, an expansion in entry levels to post-school education has been evident in all three countries (Figure 3). The nature of gender differences in educational participation has also changed; in Ireland and the Netherlands, there has been a shift over time towards higher participation among females than males while rates of participation have been higher among females in Scotland throughout the whole period[2]. To what extent do these changing gender differences reflect trends in upper secondary completion?

Tables 2a and 2b indicate that these trends are evident, even controlling for initial education; that is, post-school participation has grown disproportionately among females in Ireland and the Netherlands. In Scotland, trends in post-school participation are commensurate with levels of upper secondary leaving, although overall participation rates are higher among females. As might be expected, rates of entry to post-school education are higher among those who completed the upper secondary level; this difference is most marked in the Netherlands. Not completing

[2] To some extent, this cross-national difference may reflect institutional/definitional differences in the nature of post-school education. A significant proportion of those in post-school education in Scotland are in further education colleges where they may be studying courses at either secondary or tertiary level. When only university entrants are considered, female participation outstrips that of males in Ireland by the end of the period with male dominance narrowing in Scotland and, to a lesser extent, the Netherlands.

upper secondary education is somewhat less of a barrier to participation for females than males, a pattern that applies across all three countries.

As with educational attainment on leaving school, post-school participation is significantly structured by social class in Ireland and Scotland, with the highest rates found among the service class and petty bourgeoisie. Furthermore, having a parent in paid employment is positively associated with post-school participation, especially in Ireland (Table 2a). Social class influences on participation operate in a similar manner for males and females and in Ireland and Scotland.

It is clear, therefore, that post-school educational participation is strongly influenced by secondary educational attainment. However, it is also important to explore whether particular types of education are differently associated with post-school participation. Taking either an academic or vocational track at upper secondary level is positively associated with subsequent educational participation; however, the relationship is much stronger for those who have taken an academic track. This pattern is broadly similar in Ireland and the Netherlands. The type of vocational track taken does not appear to have a significant effect per se (Table 2b).

Labour market entry patterns

The previous section indicates that declining proportions of young people, especially those who have completed upper secondary education, directly enter the labour market on leaving school. However, in spite of the 'cream-off' of higher educated leavers to further education, educational attainment levels have also risen among labour market entrants. To what extent then do gender differences in educational attainment translate into gender differences in employment situation?

Figure 4a: Paid employment rate among labour market entrants

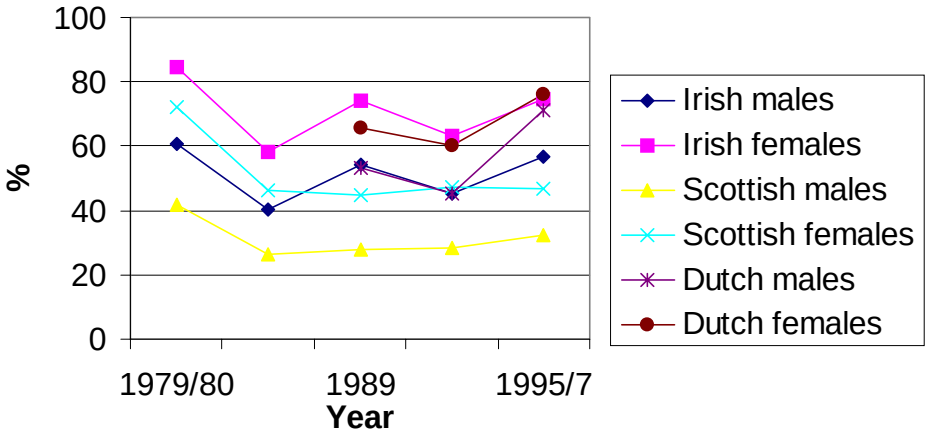


Figure 4b: Unemployment rate among labour market entrants

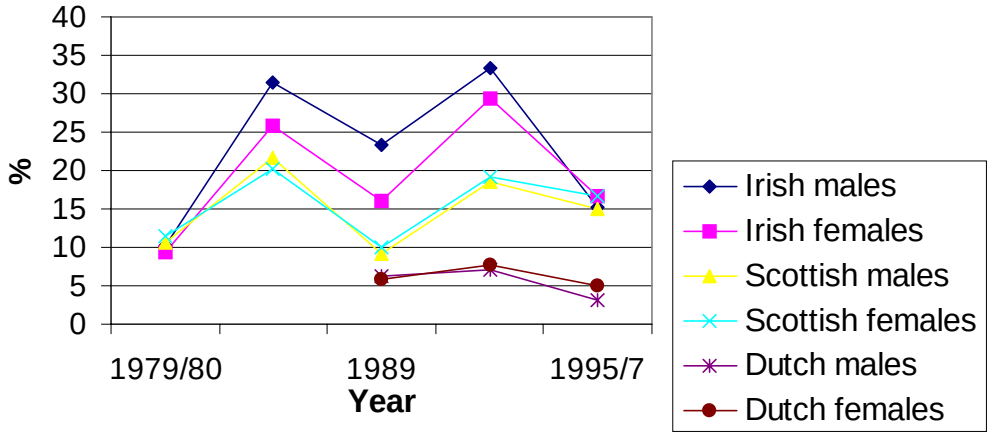


Figure 4a indicates higher employment rates among females than males in all three countries over the whole period while unemployment rates are consistently higher among males than females only in Ireland (Figure 4b). The models in tables 3a, 3b and 3c allow us to examine whether these gender differences hold when we take account of higher educational attainment among females. Even controlling for education, females are more likely to be in employment (relative to unemployment) than their male counterparts, approximately one year after leaving school. (The exception to this pattern is the Netherlands in 1997 where employment rates no longer differ by gender.) This relativity is quite constant in the context of marked cross-national differences in employment trends over time.

As might be expected, completing upper secondary education is positively associated with employment chances in all three countries. However, the effect seems

to diminish somewhat in Scotland over time (Table 3a). The relationship between educational attainment and employment chances is similar for males and females in all of the countries.

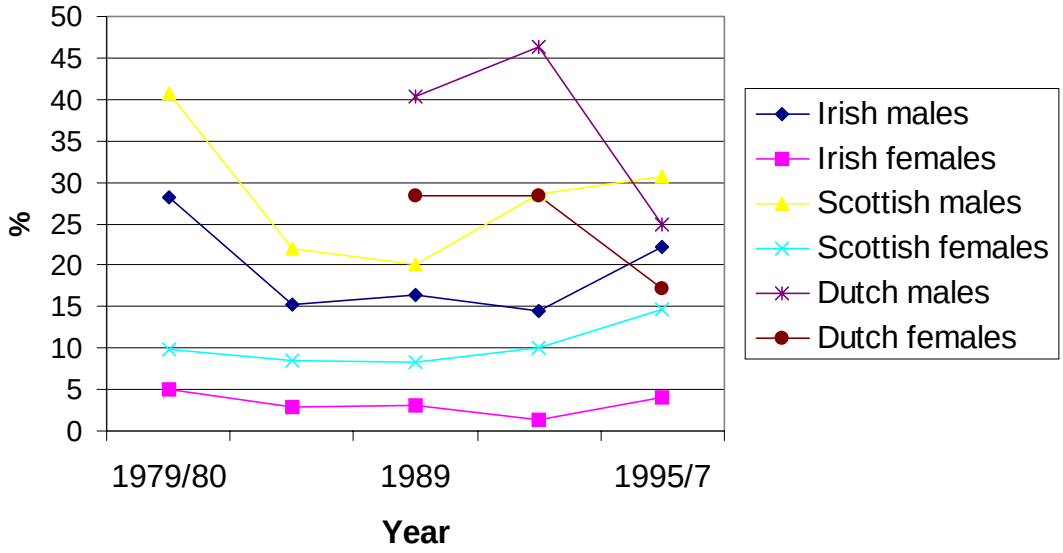
In Ireland and Scotland, social class background has an additional effect on employment chances as does parental employment (Table 3a). However, this effect may be capturing some of the variation in educational qualifications among upper secondary leavers. In other words, the fact that those from service class backgrounds tend to receive higher grades in their exam may account for (some of) their advantage in securing access to employment. It is intended to explore this pattern in greater detail in future analyses using more detailed measures of educational outcomes.

Type of education also plays a role in securing access to employment, with the highest employment chances evident among those who have taken a vocational track within upper secondary education (Table 3c). 'Informal' tracking in the Irish context appears to play a similar role to the more institutionalised tracking in the Netherlands. When type of track is considered, those who have taken a male-dominated course appear to fare somewhat better in securing employment. There are some differences between males and females, with taking a mixed or female-dominated track having more positive effects for females than males (Table 3c).

Access to post-school training

Two types of post-school training can be distinguished in the CATEWE time-series database: apprenticeships and State training/employment programmes. Trends in apprenticeships differ markedly by country and gender. In Ireland and Scotland, male apprenticeship rates contracted in line with declining employment during the 1980s and early 1990s while Dutch rates declined substantially during the mid-1990s (Figure 5a). In all three countries, participation is highly gendered, with much higher rates among males than females.

Figure 5a: Apprenticeship among LM entrants

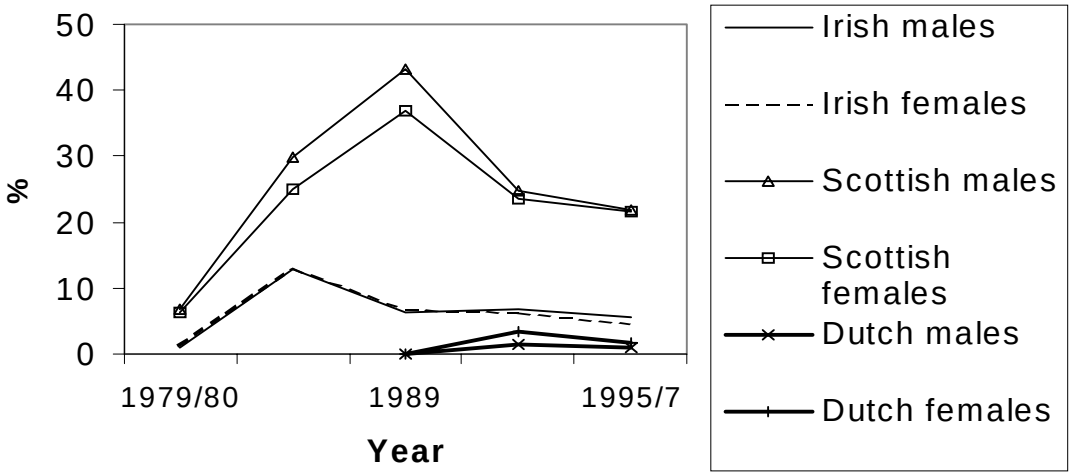


Gender differences remain evident when educational attainment is taken into account and these differences are particularly marked in Ireland compared to Scotland and the Netherlands. This would appear to reflect the types of jobs in which apprenticeships are available. In Ireland, there is a high concentration of apprentices in skilled manual sectors within manufacturing and construction, traditionally male domains. However, in the Netherlands, a relatively high proportion of apprenticeships is available in routine non-manual jobs within the service sector. It should also be noted that in the three countries the nature of apprenticeship participation tends to be highly segregated by gender, with young women concentrated in more traditionally female occupational domains.

The educational background of apprentices differs in the three countries. At the beginning of the period, upper secondary leaving was associated with entry to apprenticeship in Scotland; however, by the end of the period, apprentices tend to resemble the unemployed in their educational profile. The reverse is true in Ireland where the representation of upper secondary leavers among apprentices increases over time. In the Netherlands, apprentices (especially male apprentices) are negatively selected in educational terms, that is, they are more likely to have left school before attempting any upper secondary qualifications. In particular, taking an upper secondary vocational track significantly reduces entry to apprenticeship. Thus,

apprenticeship acts as a substitute to achieving vocational skills within schools in the Netherlands (but not in Ireland). This pattern applies for those taking male or mixed tracks and for males who have taken female tracks. However, this is not the case for young women who have taken female tracks.

Figure 5b: Scheme participation among LM entrants



Participation in schemes reflects the very different pattern and timing of scheme provision in the three countries (Figure 5b). In Ireland and Scotland, youth programmes emerged as a response to increasing unemployment in the early to mid 1980s; however, overall levels of provision in Scotland significantly exceeded those in Ireland to the point where many of the traditional employment opportunities for school leavers were replaced with training scheme places. Thus, the boundaries between paid employment, scheme participation and unemployment became somewhat blurred in the Scottish context (Smyth and Surridge, 1996). In the Netherlands, unemployment levels did not begin to increase until the late 1980s and so schemes were not introduced until later than in the other countries; overall levels of participation among young people in schemes have remained low. Similarly, gender differences vary cross-nationally with female participation in schemes exceeding male rates in Scotland (for the mid-1980s to the early 1990s) and in the Netherlands (in 1993 only). In Ireland, there are few gender differences in youth programme participation, although rates are slightly higher among males by the end of the period.

Controlling for education, young women are found to have higher rates of programme participation than young men. Those on schemes tend to resemble the unemployed in terms of their educational profile, both level and type. This is hardly

surprising given the targeting of active labour market policy on those who would otherwise become unemployed.

Employment outcomes

A number of different dimensions of employment outcomes are considered: whether young people have part-time jobs; the industries they work in; and the occupations they work in (both social class and occupational status). This allows us to explore whether gender differences in educational outcomes translate into gender differences in employment outcomes. All of these characteristics relate to young people whose principal activity at the time of the survey is paid employment. The countries considered have also been found to differ in the proportion of young people in mixed statuses, that is, combining employment and education/training (see Welters and Wolbers, 1999).

Part-time employment

Figure 6: Prevalence of part-time work

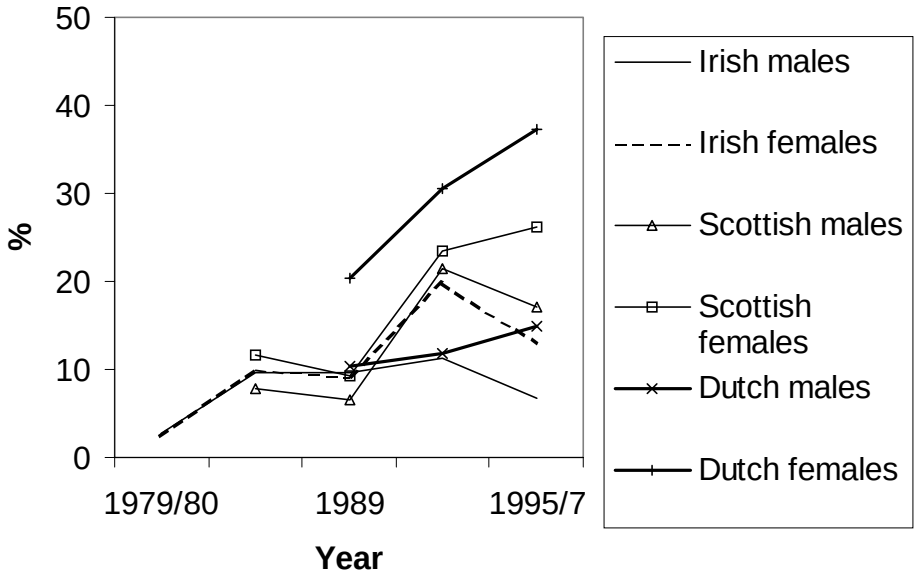


Figure 6 indicates a significant increase in the proportion of young people, especially young women, working part-time over the period. An even higher level of part-time employment has found among young women in France and Sweden (see Smyth, 2000). Part-time work becomes increasingly gendered over time in the three

countries and female over-representation is still apparent when education is taken into account (see Tables 4a, 4b and 4c).

In Ireland and the Netherlands, those who complete upper secondary education are less likely to work part-time; however, there are no such educational differences between full-time and part-time workers in the Scottish context. When type of education is considered, it appears that having taken a vocational track provides a more direct route into full-time employment, especially for males. In contrast, Dutch males who took an academic track are somewhat more likely to be in part-time employment. The prevalence of part-time work varies by industrial sector with the highest rates evident in personal and professional services and distribution and the lowest rates in manufacturing. Industrial restructuring accounts for a good deal of the increase in part-time work in Scotland but there has been a shift over time towards part-time work within industries in Ireland and the Netherlands (Table 4b). The predominance of young women in part-time work is partly a reflection of the types of industries they work in; however, young women are more heavily concentrated in part-time work even when industrial sector is taken into account (Tables 4a, 4b and 4c).

Industrial sector

The industrial distribution of young people on leaving school differs significantly between country and over time. In this paper the focus is not on explaining cross-national differences in industrial and occupational restructuring but rather on exploring differences between countries in the relative labour market position of young women and men. Cross-national similarities are evident in the 'gendering' of industrial sectors, even when education is taken into account; construction is strongly 'male' while professional and personal services are strongly 'female' in all three countries. However, the agricultural sector is predominantly male in Ireland and Scotland but not the Netherlands. The gender profile of the distribution sector also varies, being relatively mixed in Ireland and Scotland and predominantly female in the Netherlands (Tables 6a and 6b).

Gender segregation by industry is apparent in all three countries. It was hypothesised that gender segregation would be greater in the Netherlands than in Ireland or Scotland since gender-typed vocational courses are likely to channel young people into gendered sectors. Using an index of dissimilarity as a measure of

industrial segregation would appear to confirm this hypothesis with consistently higher levels of segregation in the Netherlands than in the less track-differentiated systems of Ireland or Scotland (see Table 6). However, indices of dissimilarity must be interpreted with some caution since they are sensitive to shifts in the relative size of industrial (and occupational) categories and to the number of categories used (see Blackburn et al., 1993). It is useful, therefore, to examine the influence of gender on industrial allocation, controlling for other factors, especially educational attainment.

Upper secondary education is positively associated with entry to the financial and professional service sectors in all three countries. This effect is more marked for females than males. Overall, upper secondary leaving among females tends to be more positively associated with entry to sectors other than manufacturing. In addition, a service class background has a strong positive association with entry to the financial and professional service sectors in Ireland and Scotland (Table 6a).

When type of education is considered, it is clear that academic and vocational tracks tend to result in different patterns of industrial allocation. Having taken an academic track is strongly associated with entry to the financial and professional service sectors in Ireland and the Netherlands, although rates of entry to professional services are also high among females who have taken a vocational track (Table 6b). The latter pattern may relate to the presence of medical-related vocational courses within upper secondary education in the Netherlands. Some differences are apparent among type of vocational track and these patterns tend to differ by country. In the Netherlands, male tracks are associated with entry to agriculture while taking a mixed or female track reduces the chances of entering the agricultural sector. In both Ireland and the Netherlands, mixed and female tracks are associated with entry to professional services while they are associated with entry to personal services only in the Netherlands (Table 6c).

Our initial hypothesis suggested that labour market segregation should be less evident when educational segregation is taken into account and that the direct effect of gender should be stronger in Ireland than the Netherlands due to the predominance of gendered vocational tracks in the Dutch context. However, the effect of type of track is found to differ for males and females (Table 6c), indicating that industrial segregation by gender persists even among those who have taken similar vocational tracks. Further analyses were carried out to test for a significant interaction between vocational track, gender and country (tables not reported here). The relationship

between gender and type of track does not differ significantly by country so there is no evidence of a stronger direct gender effect in the Irish context.

Social class allocation

Social class is measured using the Erikson-Goldthorpe schema. Across all three countries, the routine non-manual class tends to be predominantly female while the skilled manual class is predominantly male. The gender composition of the service class has varied somewhat over time and between country. Due to the variation in social class distribution by gender, the EGP schema is used as a basis for assessing the degree of occupational segregation. Using this classification, occupational segregation tends to be pronounced higher in the Netherlands than in Ireland or Scotland as predicted in our earlier hypothesis (Table 6). However, this should be interpreted with caution as some inconsistencies are evident over time.

As might be expected, upper secondary education is positively associated with entry to the service, routine non-manual, petty bourgeoisie and, to a lesser extent, the skilled manual class compared with the semi/unskilled manual class. The association between upper secondary education and service class entry is stronger for females than for males in all three countries (Tables 7a and 7b). Social class of destination is also associated with social class of origin, although some of the effects may be capturing variation between social groups in educational attainment.

Vocational tracks appear to act as a route to service class entry in both Ireland and the Netherlands, particularly for females, while Irish school-leavers who have taken an academic track are also over-represented within the service class. Rates of entry to routine non-manual work do not differ substantially by curricular type (vocational/ academic). Taking an academic track is negatively associated, and taking a vocational track positively associated, with entering skilled manual work in the Netherlands (Table 7c). When type of track is considered, mixed and female tracks are more strongly associated with entry to the service and routine non-manual classes. Occupational segregation is evident even among those who took similar vocational tracks; the vast majority of young women in the Netherlands, for example, enter routine non-manual work, regardless of whether they have taken 'male, 'female' or 'mixed' vocational tracks. Contrary to our hypothesis, there is no evidence that the relationship between gender and vocational track differs in Ireland and the Netherlands (tables not reported here).

Occupational status

Occupational status was measured using Treiman and Ganzeboom's ISEI scale. In general, status levels tend to be higher in the Netherlands than in Ireland or Scotland. Even controlling for education, young women have higher status levels than young men in all three countries. However, this may reflect the way (predominantly female) routine non-manual jobs are treated in the schema rather than an advantage in terms of pay or conditions (see Smyth, 2000 on lower pay levels among young women in Ireland and the Netherlands). There has been a decline over time in occupational status levels among labour market entrants. As might be expected, upper secondary education is associated with higher status levels in all three countries. However, the returns to females are lower than to males. Social class background is also associated with status, with higher levels found among those from service and routine non-manual backgrounds (Tables 8a and 8b).

Both academic and vocational upper secondary education are associated with entry to higher status jobs. All three types of vocational tracks are associated with higher status in the Netherlands but only mixed and female tracks are associated with higher status in Ireland. In the case of female tracks, young women seem to receive lower returns to participation than young men (Table 8b).

Conclusions

This paper has examined three countries with very different trends in educational participation by gender. In spite of these differences, certain cross-national regularities are evident in the early transition process. Firstly, young women are more likely to work part-time than young men, even at this early stage in their careers and the extent of part-time employment among young women may have negative consequences for their subsequent career mobility. Secondly, industrial and occupational segregation by gender is evident in all three countries. However, it should also be recognised that the 'gendering' of occupational and industrial sectors does vary somewhat across countries, reflecting the interaction between young people's characteristics and employer demand in particular socio-economic contexts. In addition, gender-typing is found to vary somewhat over time, a phenomenon that is usually only evident over much longer time-periods (see, for example, Bradley, 1989).

There is tentative support for the hypothesis of greater labour market segregation in the track-differentiated system of the Netherlands than in the more

general systems of Ireland and Scotland; aggregate measures of occupational and industrial segregation indicate somewhat greater segregation by gender in the Dutch context. Gender-typed vocational courses do play a role in channelling young people towards gendered industries and occupations. However, contrary to our initial hypothesis, labour market segregation in the Netherlands is not wholly accounted for by gender segregation in the type of education received. It is important, therefore, to take account of the way in which gender continues to shape the interaction between education/ training systems and the labour market for young people.

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Table 1: Upper secondary leaving in Ireland and Scotland

Variables	*Coefficients*
Constant	-1.702***
Ireland	.898***
Female	.529***
Female - Ireland	.372***
Time trend:	
1985	.030
1989	.219**
1993	.634***
1997	.596***
Social class:	
Service class	2.134***
Non-manual class	1.011***
Petty bourgeoisie	.939***
Skilled manual	.499***
Social class unknown	-.274**
Service class - female	-.307***
Non-manual class - female	-.208**
Skilled manual - female	-.150*
Class unknown - female	-.216**
Parental employment	-.057
Parental employment - Ireland	.217***
Parental employment 1985	.392***
Parental employment 1989	.434***
Parental employment 1993	.474***
Parental employment 1997	.518***

Base category: Scotland, male, 1980, semi/unskilled manual/agricultural worker class, no parent in paid employment

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

Table 2a: Post-school educational participation in Ireland and Scotland

Variables	*Coefficients*
Constant	-3.895***
Ireland	-.620***
Female	1.193***
Female - Ireland	-.660***
Upper secondary leaver	2.861***
Upper secondary leaver - female	-.999***
Time trend:	
1985	.004
1989	-.026
1993	.614***
1997	.766***
Ireland 1985	.366***
Ireland 1989	.707***
Ireland 1993	.021
Ireland 1997	-.233
Female 1993	-.216**
Female 1997	-.249**
Ireland - female 1993	.556***
Ireland - female 1997	.938***
Social class:	
Service class	1.223***
Non-manual class	.462***
Petty bourgeoisie	.750***
Skilled manual	.234***
Social class unknown	.473***
Service class - Ireland	.211**
Class unknown - female	-.217*
Parental employment	.135*
Parental employment - Ireland	.328***

Base category: Scotland, male, 1980, semi/unskilled manual/agricultural worker class, no parent in paid employment, left school before attempting upper secondary exam.

Table 2b: Post-school educational participation in Ireland and the Netherlands

	Model 1	*Model 2*	*Model 3*
Constant	-4.299***	-4.455***	-4.420***
Ireland	1.089***	1.011***	.951***
Female	.195	.119	.099
Female - Ireland	-.108	.064	.162
Upper secondary leaver	3.872***		
Upper secondary - female	-.467***		
Upper secondary - Ireland	-.666***		
Academic leaver		5.422***	5.427***
Academic leaver - female		-.580***	-.597***
Academic leaver - Ireland		-1.711***	-1.734***
Vocational leaver		2.954***	
Vocational leaver - female		-.831***	
Vocational leaver - Ireland		-.921***	
Male track leaver			2.856***
Male track leaver - female			-.854***
Male track leaver - Ireland			-.376*
Mixed track leaver			3.081***
Mixed track leaver - female			-.747***
Mixed track leaver - Ireland			-1.210***
Female track leaver			2.965***
Female track leaver - female			-.859**
Female track leaver - Ireland			-1.280***
Time trend:			
1993	.762***	.995***	.964***
1997	.386***	.547***	.520***
Ireland 1993	-.741***	-.679***	-.638***
Ireland 1997	-.476***	-.394***	-.396**
Female 1993	-.165**	-.143*	-.151*
Female 1997	.177**	.350***	.346***
Ireland - female 1993	.365*	.343*	.386*
Ireland - female 1997	.376*	.233	.304

Base category: Netherlands, male, 1989, left school before attempting upper secondary exam/ qualification.

Table 3a: Labour market entry status in Ireland and Scotland (contrasted against unemployment)

Explanatory variables	Employed	Apprentice	Scheme
Constant	1.061***	.952***	-.523***
Ireland	-0.081	-.791***	-2.060***
Female	.458***	-1.069***	-.121*
Female - Ireland	-.071	-.306**	.208
Time trend:			
1985	-1.629***	-1.922***	.581***
1989	-.952***	-1.329***	1.731***
1993	-1.523***	-1.432***	.621***
1997	-1.424***	-1.314***	.549***
1997 - Ireland	.689***	.340	.976***
Upper secondary education	1.475***	.720***	.188
*1985	-.503*	-.253	-.103
*1989	-.869***	-.573*	-.640*
*1993	-.880***	-1.062***	-.419
*1997	-.549*	-.414	-.027
Upper sec. - Ireland	-.973***	-1.232***	.644
*1985 - Ireland	.529*	.760*	.478
*1989 - Ireland	1.105***	1.388***	-.626
*1993 - Ireland	.825***	.977***	-.312
*1997 - Ireland	.681*	1.242***	-1.343**
Social class:			
Service	.535***	.705***	.153
Non-manual	.313***	.523***	.145
Petty bourgeoisie	.471***	.609***	.209**
Skilled manual	.127*	.380***	.145*
Unknown	-.387***	-.255***	-.179*
Parental employment	.614***	.877***	.347***

Base category: Unemployed, Scotland, male, 1980, left school before upper secondary, semi/unskilled manual class, no parent in paid employment.

Table 3b: Labour market entry status in Ireland and the Netherlands (contrasted against unemployment)

Explanatory variables	Employed	Apprentice	Scheme
Constant	1.711***	2.155***	-6.357***
Ireland	-1.255***	-2.663***	5.037***
Female	.199*	-.480***	1.127***
Female - Ireland	.376***	-1.698***	-.503*
Time trend:			
1993	-.158*	-.029	4.790***
1997	.925***	.181	5.045***
1993 Ireland	-.512***	-.648***	-5.120***
1997 Ireland	-.471***	.524**	-4.671***
1993 female	-.158	-.274*	-.236
1997 female	-.613***	-.521***	-.809**
Upper secondary	.855***	-1.049***	.050
Upper secondary - Ireland	-.035	1.509***	-.027
Upper secondary - female	-.025	.852***	-.362

Base category: Unemployed, Netherlands, male, 1989, left school before upper secondary.

Table 3c:Type of education and labour market status in Ireland and the Netherlands

	Employed	*Apprentice*	*Scheme*
Academic track	.592***	-.473**	-.110
Academic - Ireland	.258	.855***	.143
Academic - female	-.158	.789***	-.339
Vocational track	.877***	-1.197***	.099
Vocational - Ireland	-.047	1.836***	-.048
Vocational - female	.055	.795***	-.371
Of which:			
Male track	1.137***	-1.051***	.315
Male track - Ireland	-.422*	2.362***	-.053
Male track - female	-.081	-.164	-.338
Mixed track	.511***	-1.607***	-.160
Mixed track - Ireland	.037	1.758***	-.101
Mixed track - female	.457*	.172	-.270
Female track	.509***	-1.250***	-.141
Female track - Ireland	.165	-.977	.093
Female track - female	.363*	1.136***	-.106

Note: these models are similar to that presented in Table 3b but replacing upper secondary with academic upper secondary and vocational upper secondary; subsequently, vocational upper secondary is replaced by male/female/mixed track.

Table 4a: Part-time work in Ireland and Scotland

Variable	*Model 1*	*Model 2*
Constant	-2.464***	-2.794***
Female	.381***	.269**
Ireland	.212	.033
Time trend:		
1989	-.236	-.108
1993	.960***	.006
1997	.933***	.096
1989 - Ireland	.200	.045
1993 - Ireland	-.321	.617*
1997 - Ireland	-.834***	.031
Upper secondary education	.087	-.126
Upper secondary - Ireland	-.434***	-.276
Industry:		
Manufacturing		-.469**
Distribution		1.135***
Professional services		.442*
Personal services		1.084***

Base category: male, Scotland, 1985, left school before upper secondary qualification; agriculture/ construction/ finance/ public administration.
Note: model is based on the period 1985 to 1997 since information on the prevalence of part-time working is not available for Scotland in 1979.

Table 4b: Part-time work in Ireland and the Netherlands

Variable	*Model 1*	*Model 2*
Constant	-2.182***	-2.612***
Ireland	-.138	-.044
Female	1.054***	.803***
Female - Ireland	-.575***	-.608***
Time trend:		
1993	.429***	.509***
1997	.723***	.802***
1989 - Ireland	.253	.172
1993 - Ireland	-.576**	-.599***
1997 - Ireland		
Upper secondary education	-.353***	-.434***
Upper secondary – Ireland	-.135	-.157
Upper secondary - female	.121	.136
Industry:		
Manufacturing		-.734***
Distribution		.801***
Professional services		.887***
Personal services		1.263***

Base category: male, Netherlands, 1989, left school before upper secondary qualification; agriculture/ construction/ finance/ public administration.

Table 4c: Type of education and part-time work in Ireland and the Netherlands

	Model 1	*Model 2 (controlling for industry)*
Academic track	.551***	.335*
Academic - Ireland	-.260	-.483*
Academic - female	-.926***	-.651***
Vocational track	-.541***	-.580***
Vocational - Ireland	-.260	-.149
Vocational - female	.350***	.301**
Of which:		
Male track	-1.010***	-.885***
Male track - Ireland	.060	-.063
Male track - female	.267	.309*
Mixed track	-.445***	-.633***
Mixed track - Ireland	1.044**	1.094**
Mixed track - female	-.590***	-.341*
Female track	.859***	.525***
Female track - Ireland	-.825***	-.631**
Female track - female	-.657***	-.450**

Table 5: Industrial and occupational segregation by gender (index of dissimilarity)

	Industry (9 categories)			*Occupation (8 categories)*		
	Ireland	*Netherlands*	*Scotland*	*Ireland*	*Netherlands*	*Scotland*
1979/80	26.9	-	19.4	46.1	-	46.7
1985	32.7	-	21.4	23.1	-	44.9
1989	28.8	35.2	22.4	34.8	48.7	43.3
1993	30.5	35.5	33.4	33.1	53.9	52.3
1995/7	30.5	31.7	29.3	38.2	44.8	46.5

Table 6a: Industrial allocation in Ireland and Scotland

	Agriculture	Construction	Distribution	Finance/ public admin.	Professional services	Personal services
Constant	-2.055***	-2.002***	-.585***	-1.545***	-2.890***	-1.943***
Ireland	1.111***	.862***	.579***	.430***	.488**	.371**
Female	-1.468***	-1.369***	-.023	.082	.983***	.528***
Time trend:						
1985	.436*	.856***	.263**	.439***	-.117	.772***
1989	.597**	.921***	.130	.207	-.011	.442***
1993	.927***	1.127***	.701***	-.131	.024	1.247***
1997	.827***	.895***	.321**	1.762***	-.192	.748***
1985 - Ireland	-.370	-.821**	-.335*	-1.176***	.098	-.240
1989 - Ireland	-.609*	-.388	-.186	-1.731***	-.229	.293
1993 - Ireland	-.934**	-.992**	-.753***	-1.976***	-.323	-.373
1997 - Ireland	-1.410***	-.545*	-.582***	-1.566***	-.361	-.321
Upper secondary education	.316*	.209	.485***	1.762***	1.364***	.435***
Upper secondary - Ireland	-.894***	-.672***	-.277*	-.648***	-.350*	-.443***
Upper secondary - female	.473*	.605**	.302**	.385**	.550**	.230
Social class:						
Service class	-.006	.171	.202*	.888***	.836***	.534***
Nonmanual	-.102	.179	.326***	.705***	.424***	.279**
Petty bourgeoisie	1.378***	.226	.180*	.260**	.511***	.403***

Base category: manufacturing; male, Scotland, 1980, left school before upper secondary qualification; semi/unskilled manual class background.

Table 6b: Industrial allocation in Ireland and the Netherlands

	Agriculture	*Construction*	*Distribution*	*Finance/ public admin.*	*Professional services*	*Personal services*
Constant	-1.612***	-.475***	.252***	-1.137***	-1.362***	-1.262***
Ireland	.698**	-.165	-.411**	-1.308***	-1.784***	.382*
Female	-.268	-2.757***	.826***	.187	1.171***	1.014***
Female - Ireland	-1.021***	-.847*	-.547***	-.340	.061	-.305*
Time trend:						
1993	-.187	.110	.093	-.174	-.567***	.142
1997	.743***	.053	.226**	-.005	-.225*	.231*
1993 - Ireland	.243	-.765*	.004	-.440	.196	.058
1997 - Ireland	-1.328***	-.289	-.483***	-.291	-.307	-.405*
1993 - female	.093	.175	-.190	-.203	.308*	-.107
1997 - female	.081	.537*	.121	-.191	.240	-.193
Upper secondary education	.516***	-.181*	-.040	.537***	1.289***	.202*
Upper sec. - Ireland	-.928***	-.132	.421***	.534	.291	-.273
Upper sec. - female	-.579**	1.425***	.104	.935***	.551***	.545***

Base category: manufacturing; male, Netherlands, 1989, left school before upper secondary qualification.

Table 6c: Type of education and industrial allocation in Ireland and the Netherlands

	Agriculture	*Construction*	*Distribution*	*Finance/ public admin.*	*Professional services*	*Personal services*
Academic track	.930***	-.061	.587***	1.566***	1.959***	-.084
Academic - Ireland	-1.070***	-.189	-.066	-.378	.673*	.229
Academic - female	-.787*	1.777***	-.099	.597**	-.666**	.522*
Vocational track	.466***	-.196*	-.109	.398***	1.194***	.221*
Vocational - Ireland	-1.166***	-.116	.407**	.707*	-.107	-.783***
Vocational - female	-.534**	1.350***	.100	.911***	.732***	.575***
Of which:						
Male track	.671***	-.046	-.454***	-.017	.904***	-1.038***
Male track - Ireland	-.907*	-.147	.077	.515	-.368	.473
Male track - female	-.057	.988***	-.110	.971***	-.461*	.270
Mixed track	-1.437***	-1.065***	.896***	1.389***	1.157***	1.034***
Mixed track - Ireland	.905	.253	-.182	-.145	.625	-.824*
Mixed track - female	.414	2.855***	-.849***	.763***	-.395	-.701***
Female track	-1.396*	-2.071***	.105	1.009***	2.815***	2.316***
Female track - Ireland	-.584	1.803***	.354	.876*	-1.000***	-1.719***
Female track - female	.756	2.286***	.107	-.260	-.124	-.826***

Table 7a: Social class allocation in Ireland and Scotland

	Service	Non-manual	Petty bourgeoisie	Skilled manual
Constant	-3.314***	-1.090***	-4.384***	-.560***
Ireland	1.039***	.625***	2.562***	.204
Female	.598**	1.670***	-.184	-.812***
Female - Ireland	.045	-.349***	-.171	.015
Time trend:				
1985	-.363	-.187	1.284***	-.362*
1989	.009	-.079	1.410***	-.104
1993	-.144	-.034	1.441***	-.658***
1997	-.418	-.530***	1.213**	-.471**
1985 - Ireland	-.429	-.651***	-1.554***	-.105
1989 - Ireland	-.625*	-.589***	-1.948***	-.209
1993 - Ireland	-.549	-.879***	-1.771***	.027
1997 - Ireland	-.157	-.067	-1.434***	.711***
1985 - female	.142	-.339*	.489	.611***
1989 - female	-.255	-.281	.609	.420*
1993 - female	-.761**	-.244	.525	.532*
1997 - female	-.302	-.141	.902*	.559**
Upper secondary education	1.829***	1.559***	1.105***	.224*
Upper secondary - Ireland	-.655***	-.388***	-.825**	-.062
Upper secondary - female	.598**	-.096	-.230	-.132
Social class:				
Service class	1.437***	.756***	1.140***	.344**
Nonmanual	.806***	.581***	.835***	.170
Petty bourgeoisie	.469***	.049	.671**	-.574
Skilled manual	.475***	.211**	.359	.359***
Unknown	.534**	-.070	.714**	.199
Parental employment	-.128	.196**	-1.013***	.147

Base category: semi/unskilled manual/ agricultural workers; male, Scotland, 1980, left school before upper secondary qualification, semi/unskilled manual class background, neither parent in paid employment.

Table 7b: Social class allocation in Ireland and the Netherlands

	Service	Non-manual	Petty bourgeoisie	Skilled manual
Constant	-1.383***	-.541***	-4.428***	.109
Ireland	-2.440***	-.080	.551	-.553***
Female	.246	1.772***	-.096	-1.033***
Female - Ireland	-.055	-.990***	.410	.266
Time trend:				
1993	-.888***	-.345***	-2.466***	-.487***
1997	-.210*	-.445***	1.664***	-.231**
1993 - Ireland	.144	.188	3.250***	.350
1997 - Ireland	.025	.577***	-.527	.832***
1993 - female	.143	-.141	-.546	-.547***
1997 - female	.216	.040	.534	-.012
Upper secondary education	1.601***	1.161***	1.605***	.568***
Upper secondary - Ireland	.950*	-.293*	-1.276**	-.505***
Upper secondary - female	.729***	.372***	-1.050**	.637***

Base category: semi/unskilled manual/ agricultural workers; male, Netherlands, 1989, left school before upper secondary qualification.

Table 7c: Type of education and social class allocation in Ireland and the Netherlands

	Service	Non-manual	Petty bourgeoisie	Skilled manual
Academic track	.426*	1.312***	.007	-.647***
Academic - Ireland	2.420***	-.381*	-.297	.591**
Academic - female	.269	.029	-.395	.558**
Vocational track	1.706***	1.104***	1.765***	.675***
Vocational - Ireland	.601	-.111	-.836	-.443*
Vocational - female	.840***	.493***	-1.006*	.731***
Of which:				
Male track	1.455***	.454**	2.025***	.768***
Male track - Ireland	.289	-.139	-2.340**	-.311
Male track - female	.490*	.412*	-1.035*	.369
Mixed track	2.098***	2.261***	1.025*	-.113
Mixed track - Ireland	1.164	-.985**	.374	.034
Mixed track - female	.058	.152	-.050	1.164***
Female track	2.493***	1.739***	1.159*	.508**
Female track - Ireland	.542	-.021	-.133	-.809**
Female track - female	.247	-.210	-.855	1.026***

Table 8a: Occupational status in Ireland and Scotland

Variables	*Coefficients*
Constant	32.477***
Ireland	.337
Female	4.226***
Female - Ireland	2.106***
Upper secondary leaver	6.199***
Upper secondary leaver - female	-2.705***
Upper secondary leaver - Ireland	.947*
Time trend:	
1985	-2.026***
1989	-1.615***
1993	-.809
1997	-2.134***
Ireland 1985	-3.198***
Ireland 1989	-3.251***
Ireland 1993	-5.779***
Ireland 1997	-2.549***
Social class:	
Service class	2.673***
Non-manual class	2.073***
Petty bourgeoisie	-.769**
Skilled manual	1.043***
Social class unknown	.328
Parental employment	.872***

Base category: male, Scotland, 1980, left school before upper secondary qualification, semi/unskilled manual class background, neither parent in paid employment.

Table 8b: Occupational status in Ireland and the Netherlands

	Model 1	*Model 2*	*Model 3*
Constant	34.631***	34.543***	35.184***
Ireland	-4.696***	-4.193***	-4.170***
Female	5.096***	5.166***	5.240***
Female - Ireland	.259	-.400	-1.806***
Time trend:			
1993	.021	.104	-.863***
1997	-1.756***	-1.678***	-2.792***
Ireland 1993	-1.669**	-2.017***	-1.300*
Ireland 1997	1.932***	1.527***	2.844***
Upper secondary	5.810***		
Upper sec. - Ireland	.834		
Upper sec. - female	-2.443***		
Academic track		6.526***	5.961***
Academic - Ireland		-1.129	-.794
Academic - female		-.969	-.388
Vocational track		5.796***	
Vocational - Ireland		2.173***	
Vocational - female		-2.862***	
Male track			5.305***
Male track - Ireland			-3.072***
Male track - female			.427
Mixed track			8.774***
Mixed track - Ireland			-.573
Mixed track - female			-.486
Female track			4.241***
Female track - Ireland			6.616***
Female track - female			-4.187***

Base category: male, Netherlands, 1989, left school before upper secondary qualification.