

## **SOCIAL MOBILITY IN EUROPE**

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## Social Mobility in Europe

### Introduction

This paper summarizes the findings of a project, and forthcoming book, *Social Mobility in Europe* (Richard Breen, ed., Oxford University Press, 2005) on social mobility in 11 European countries over a period of almost 30 years.

The 11 countries represented in this study are Britain, France, Ireland, West Germany, the Netherlands, Italy, Sweden, Norway, Poland, Hungary and Israel, and the period covered is from the early or mid-1970s to the mid- or late 1990s. The book contains chapters dealing with each country, written by an author or authors from that country (see Table 1). In each case the authors base their analyses on data sets comprising as many as possible high quality, nationally representative surveys carried out during this period. There are some common elements to each of these chapters but, by and large, each authorial team was asked to analyze and discuss the trends in social mobility in their own country and provide some explanation of them. This has necessarily led to different approaches as circumstances dictated. But, in addition to the 11 single country chapters, there is a further empirical chapter, the aim of which is explicitly comparative. Here the data sets from all the countries have been put together to allow formal analyses of the differences between countries and the changes through time. By using this design it was hoped to marry the advantages of an edited collection of country chapters (namely the insight that can be brought by authors who have extensive knowledge of their own language, culture and institutions) to those of a proper comparative study (the ability to test, rather than simply hypothesize, patterns of similarity and difference between societies and of variation over time).

[TABLE 1 HERE]

The project has been a collaborative venture – and not only in the obvious sense that it has involved the work of many authors. It is collaborative because it is one of the fruits of a long sustained programme of international social mobility research that has been associated with Research Committee 28 (Social Stratification and Mobility) of the International Sociological Association. Scholars associated with this group have created a rare phenomenon in sociology,

namely, a research paradigm. Thus the study of social mobility – and particularly of intergenerational class mobility – is an area that, to a greater extent than probably any other in the discipline, is characterised by an interest in addressing a set of widely agreed upon questions, and shared sets of concepts and methods applied to this end. As a result, all of the contributors have used the same schema for measuring social class position, have drawn on the same body of methods for analyzing their data, and have, to a large extent, orientated their analyses around tests of the same group of theories. Without such a broad basis of common assumptions it is doubtful whether the project could ever have been put together – at any rate, not without much more difficult and expense.

The motivation for the project was our lack of detailed knowledge about how patterns of social mobility had evolved since the 1970s and whether societies were becoming more similar or more diverse in this respect. We took the early 1970s as the baseline for our study because we know a great deal about national variations in social mobility at that time largely thanks to the CASMIN (Comparative Analysis of Social Mobility in Industrial Nations) project which culminated in *The Constant Flux* (1992). Here Erikson and Goldthorpe used cross-sectional data (that is, one mobility table per country) drawn, for the most part, from the late 1960s and early/mid 1970s, to compare patterns of social mobility between, initially, nine European countries: England and Wales, France, Northern Ireland, Scotland, the Republic of Ireland, West Germany, Sweden, Poland and Hungary. Supplementary analyses were also carried out on data from Czechoslovakia, Italy and the Netherlands (though these data came from the 1980s rather than the 1970s) and also from the USA, Australia and Japan (again using data from the early 1970s). There is considerable overlap in the coverage of Erikson's and Goldthorpe's study and the present one: nine of the countries represented in their work are included here (11 if we count England and Wales and Scotland separately, though in our analyses we consider them together) and, indeed, the first mobility table in the time series of tables for some of these countries is the same as that used by Erikson and Goldthorpe. The USA, Northern Ireland, Australia, Japan and Czechoslovakia are not included in the present study, while Israel and Norway were absent from *The Constant Flux*.

In my presentation today I will summarize the findings of the project and discuss some of their consequences for understanding and analyzing social mobility.

### **Data**

The data used in the project comprise 117 mobility surveys covering the period 1970 to 2000. The sources of the data are shown in Table 2. The number of tables per country ranges from two in Israel and Italy to 35 in the Netherlands. In two countries we have, for some years, more than one mobility table. In the German case for each of 1978, 1979, 1982 and 1986 we have two mobility tables, and for 1980 we have three. A test of common social fluidity within each year (the test has 216 degrees of freedom), returns a deviance of 203.7 among men and 205.2 among women, neither of which is statistically significant, suggesting that we can analyze the German data as if it were annual (that is, without having to include parameters that allow social fluidity to be different in the various German series). So the 22 German surveys are used to yield observations for 16 years. In the case of the Netherlands, several data sets refer to the same years, and here the 35 surveys give us mobility tables for 20 separate years. A test of whether, for all years in which there is more than one survey, social fluidity differed between tables in the same year, returned a deviance of 538.4 (men) and 427.3 (women) with 540 df. Again, this is not statistically significant and so we analyze the Dutch data as 20 annual surveys.

[TABLE 2 HERE]

In general the age range of the respondents in our mobility tables is 25 to 64, though in the British case it is 25 to 49. This is because, in some years, respondents to the British General Household Survey who were older than 49 were not asked about their class origins. We coded social class according to the seven-class 'CASMIN' scheme. This identifies classes I+II (the service class); III (routine non-manual class); IVab (petty bourgeoisie with and without employees); IVc (farmers); V+VI (skilled manual workers, technicians and supervisors of manual workers); VIIa (unskilled manual workers not in agriculture) and VIIb (farm workers). One consequence of choosing this categorization is that it allows our results to be compared with those of *The Constant Flux* where the same categories were used. However, some general and specific problems associated with the use of the CASMIN version of the Goldthorpe schema

should be kept in mind. For one thing, putting classes I and II together means that we do not distinguish between the upper and lower service classes and, as several of the country chapters note, this distinction is an important one: access to the upper, rather than the lower, service class differentiates the mobility chances of those from different class origins. Unfortunately, in some countries, such as Britain, I and II cannot be distinguished. For another, in the analysis of women's mobility, it is usual to place class IIIb together with class VIIa. This is because IIIb is made up of occupations, largely in personal services, that are overwhelmingly held by women and whose characteristics place them closer to unskilled manual work than to the kind of white collar jobs found in class IIIa. But, in Poland and Israel it is not possible to distinguish IIIb and IIIa and thus, in all countries, for men (where failing to separate these two parts of class III is of less consequence) and women we treat IIIa and IIIb as a single class.

The specific problems associated with the use of this version of the Goldthorpe schema are three: first, although the British data uses a seven class schema, it is not quite the same as the CASMIN schema. Thus, in Britain, the first class comprises I+II+IVa, while the third class is only the self-employed without employees (IVb). Secondly, in the Swedish data, class VII is not differentiated (because class VIIb has virtually ceased to exist). Finally, the Norwegian data from 1973 do not distinguish between the employed and the self-employed. Given that the distinction between owners and non-owners of the means of production is fundamental to any class scheme, we decided to omit this data set from all the comparative analyses reported in the project.

### **Methodological issues**

As Table 2 showed, the 11 countries contribute rather different numbers of mobility tables to our cross-national analyses. Sweden, for example, has a table for every year from 1976 to 1999, whereas Poland and Ireland have only three tables each, covering the years between the early 1970s and 1994. The amount of information we possess regarding change over time, and the reliability of the conclusions based on this information, will vary between countries. If we have a small number of observations, any one of them may be very influential in determining whether or not the data display a trend (as we shall see) and this will inevitably lead to uncertainty in the conclusions we draw. All else equal we must, as a consequence, attach more credence to results about temporal trends drawn from countries with a larger number of observations (Sweden, the

Netherlands, Great Britain and Germany).

Furthermore, the data that we use are never free of error, and differences in data quality may easily be mistaken for substantive differences. We have used the best quality data available from each of our 11 countries, but we still need to be aware of the potential for differential reliability and validity to induce spurious cross-national variation and temporal change. As far as the differences between countries are concerned, the fieldwork for the surveys we use was in all cases carried out according to internationally accepted procedures and the subsequent coding of the variables – notably class origins and destinations – followed a common, and widely implemented procedure. Nevertheless, while adherence to such norms is some reassurance that the data attain high standards of quality, the surveys in the various countries were carried out independently of each other, and so we should be cautious about what we infer from them concerning cross-national differences. As far as change within countries is concerned, we can have more faith in our findings when the various surveys have been administered in a consistent fashion. In three cases the data always come from the same survey series: these are France (the FQP – Formation- Qualification Professionnelle – surveys), Britain (the General Household Survey) and Sweden (the ULF series). In a further five countries the data sets come from highly comparable sources: these are Ireland (where the three surveys were all carried out by the same fieldwork organization), Hungary (where the four surveys were all fielded by the Hungarian Central Statistical Office), Italy (where a number of the same academics were involved in the design and execution of the two surveys), Germany and Israel. But in the remaining three cases – Norway, Poland and the Netherlands – the data come from various sources within each country and thus the possibility that variations in data quality might be mistaken for temporal change is greatest here.<sup>2</sup> Figure 1 summarizes the position of each country along the two dimensions of internal comparability of data sets and number of surveys. Following the arguments we have made, we would consider that the degree of confidence that can be placed in the results increases as one moves away from the south-west corner of the figure, with the greatest confidence

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<sup>2</sup> There are probably two major factors that will lead to change in the quality of mobility data within each country. First, response rates tend to decline over time and so the representativeness of mobility tables derived from survey data may worsen (though this is not an inevitable consequence of falling response rates and it is also quite plausible that when response rates are lower the quality of the data that are collected is higher). Secondly, it seems reasonable to suppose that there may be variation over time in the quality of treatment of the actual data collected: that is to say, in the collection, coding and processing of questionnaires.

attached to results that come from the datasets listed in the north-east corner.<sup>3</sup> Furthermore, we believe that more reliance can be placed on estimates of trends *within* countries than measures of differences *between* them: thus our discussion, later in this chapter, of which countries are more or less open in their mobility regime, should be interpreted with some caution. Finally, while the data that we have are probably adequate for presenting a picture of broad trends and differences, we would have less confidence in the extent to which they allow the specifics of the pattern of social fluidity to be compared across either time or countries. This consideration has then dictated our choice of models. Rather than seeking to develop detailed models of the fluidity regime we prefer instead to fit rather general models and to assess their adequacy using several measures (including the conventional chi-squared goodness of fit test and the index of dissimilarity).

[FIGURE 1 HERE]

The last methodological issue concerns sample size. As Table 3 shows, sample sizes vary greatly not only between countries but also, in some cases (most strikingly Poland), over time. And since the number of tables also differs between countries so does the number of cases in each table. For men in Germany, 14895 observations are spread over 16 tables, giving an average of nineteen cases per cell of these tables, whereas for France, which has only four tables, there are around 246 cases per cell. The smaller the number of observations per cell the less power our statistical tests have.

[TABLE 3 HERE]

### **Absolute mobility and class structure**

The class distributions of men and women show less variation between countries in the 1990s than they did in the 1970s. This is mainly due to the declining significance of the farm classes, IVc and VIIb, in those countries where a large farm sector persisted until the last quarter of the 20<sup>th</sup> century. As Table 4 shows, there have also been some internationally consistent trends, such

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<sup>3</sup> Though even within the series that we claim to be of the highest quality we find changes in procedures that may introduce difficulties in interpreting trends. For example, the British GHS changed during the 1980s from a less to a more accurate sampling frame.

as the growth in the service class, I+II, and the decline in manual work, particularly of the unskilled kind. Among women, increased rates of labour force participation have been associated with a reduction in international variation as more and more of them enter occupations in the white collar classes, I+II and III. This trend towards convergence in class structures has occurred together with decreasing variation between countries in their rates of overall mobility, of vertical, of upward and of downward mobility – and, again, this is evident among both sexes, as Tables 5 and 6 show. But, further, the distribution of people in the mobility tables of the different countries has also grown more similar. If we calculate the  $\Delta$ s from comparisons, between all pairs of countries, of their entire mobility tables, we find that the average  $\Delta$  (the average difference between countries) falls from 43 per cent in the 1970s, to 33 in the 1980s and 30 in the 1990s, among women, with the comparable figures for men being 39, 30 and 30 per cent. And the variance around these means has also declined: from 163.2 to 62.6 to 41.6 among women and from 137.5 to 62.9 to 56.1 among men.<sup>4</sup> Although European countries continue to show differences in their absolute mobility flows, these have become smaller.

[TABLES 4, 5 and 6 HERE]

Absolute mobility concerns the observed rates and patterns of flows between origin and destination classes and, in mobility analysis, is treated as the consequence of social fluidity (the relative chances of people from each origin being found in each destination class) operating within fixed origin and destination distributions. A model in which origins and destinations are independent, given the observed distributions of these two in each country and at each point in time, correctly classifies over 80 per cent of cases, while a model which also assumes a common level and pattern of social fluidity correctly classifies around 95 per cent of cases. It is evident,

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<sup>4</sup> The model of common social fluidity among countries within each decade misclassifies between three and four per cent of cases. But if, instead of allowing each country to have its own distribution of origins and destinations, we force these to be common in the same way that social fluidity is common (so we fit the model C OD) we find that such a model misclassifies, among men, 24 per cent of cases in the 1970s, 19 per cent in the 1980s and 20 per cent in the 1990s, and, among women, 29, 22 and 21 per cent. Because this model sets both fluidity and the origin and destination distributions to be the same in all countries, and because its fit to the data (measured by  $\Delta$ ) improves over decades, this is further confirmation that absolute mobility flows are becoming more similar. In addition, the difference in  $\Delta$  between this model and the common social fluidity model can be seen as an approximate index of the importance, for absolute mobility, of differences between countries in their origin and destination distributions. Evidently these differences are of declining importance; in particular they declined between the 1970s and 1980s.



therefore that changes over time, and differences between countries, in absolute mobility are driven by variation in the origin and destination distributions rather than in social fluidity.<sup>5</sup>

Can such variation be said to follow a pattern? We believe that the answer, in very broad terms, is yes. We might imagine societies following a developmental path that incorporates two major transitions: from an agricultural to an industrial society, and from an industrial to a post-industrial society. The consequences, for the class structure, of the former transition are a decline in the proportions in classes IVc and VIIb and a growth in the remaining classes, especially (among men) the manual working classes V+VI and VIIa. The transition to a post-industrial society sees the decline of V+VI and VIIa and the growth of I+II and III.<sup>6</sup> Everywhere the decline in agriculture is either more or less complete (Britain, Germany, Sweden, Israel, the Netherlands) or well underway while, in eight of our 11 countries (Ireland, Poland and Hungary being the exceptions), between the 1970s and 1990s, the class structure saw a steady fall in the proportion of men in classes V+VI and VIIa and a consistent increase in the proportion in I+II and III. Among women the pattern was exactly the same. These differences mean that some countries display a post-industrial class structure with a heavy concentration of people in classes I+II and III: this is particularly true of the male class structure in Britain and the Netherlands and it is true of the female class structure in several countries. But the important thing, from the point of view of the study of absolute mobility, is the recent rapidity of the transition out of agriculture. Similarly, we saw in our comparative analysis, that the shift towards a concentration of women in the white-collar classes has been more rapid in countries such as Hungary and Poland where the class distribution in the 1970s differed most from this. The result has been the growing similarity in destination distributions that we have already remarked upon. But because countries embarked on this developmental path long before the first of our surveys was fielded, there is also decreasing variation in class origins. The mean value of the  $\Delta$  between class origins

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<sup>5</sup> This point is widely recognized. Compare, for example, Grusky and Hauser: 'intersocietal differences in observed rates must be attributed to variations in occupational distributions' (1984: 29) and Erikson and Goldthorpe: 'if we wish to understand cross-national variation in absolute rates, it is on differences in the structural contexts of mobility that our attention must, almost exclusively, be focused' (1992: 213-4).

<sup>6</sup> For the majority of countries the decline occurred in class VIIa and not in V+VI.

for each pair of countries fell from 33 per cent in the 1970s to 23 in the 1980s and 24 in the 1990s.<sup>7</sup> Absolute mobility flows converged because their main determinants did.

This convergence chiefly occurred between the 1970s and 1980s and whether the trend will persist, or even strengthen, is, of course, difficult to say. Clearly, if the working classes continue to decline in those countries where the decline has begun, and if this extends from VIIa to V+VI, then further convergence will be inevitable as men, like women, come to be heavily concentrated in classes I+II and III. Recent historical experience of the location of industrial production would suggest that we can expect further convergence: in any event, it seems unlikely that any of these countries will display a growth in classes V+VI and VIIa, while some at least will experience a decline. As for the countries in which these classes have not yet begun to decline (Ireland, Poland and Hungary), the outlook seems less certain. In Ireland the growth of classes I+II and III has outstripped that of V+VI and VIIa over this period, but this is not true of the male class structure in Poland and Hungary. On the other hand, among women in Poland and Hungary there has been a steady growth in classes I+II and III and an increase, then a decline, in V+VI and VIIa, suggesting that the second transition may be under way. Much here depends on the nature of economic development. Foreign direct investment in manufacturing, as in the Irish case, is one mechanism by which the size of the working class may be sustained and the rate of convergence consequently slowed.

### **Social Fluidity**

In our comparative analysis we found that trends in social fluidity are very similar among men and women, showing a widespread tendency towards greater fluidity. Britain is the sole clear exception to this: here there has been little or not change. In other cases – notably Germany – there is no statistically significant change, though the trend, at least for men, is towards a weaker association between origins and destinations. Elsewhere – in France, Ireland, Sweden, Poland, Hungary and the Netherlands – there is a statistically significant increase in fluidity, though, the small number of observations for Ireland (three), Poland (three), and Hungary (four), and the lack of a consistent pattern of change in these countries, must leave some room for uncertainty.

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<sup>7</sup> These figures are for men. For women the figures are 36, 24 and 24 per cent. The slight differences arise because our samples of women include only those in the labour force and we have no data for women in Ireland.

But in contrast to absolute mobility we see no evidence of convergence among countries in their social fluidity. Figures 2 (for men) and 3 (for women) show these within-country trends in the form of the annual  $\beta$  coefficients from a LmSF model<sup>8</sup> with common local association among all the yearly tables of a given country.

[FIGURES 2 and 3 HERE]

Figure 4 (for men) and Figure 5 (for women) show the LmSF  $\beta$  parameters from a model, applied to decade data from each country, which assumes common local association in each table, varying only by  $\beta$ . The value for Britain in the 1980s is set to unity. Among men, Figure 4 shows that, in the 1970s, levels of social fluidity were lowest in Germany, France, Italy, Ireland, Hungary and the Netherlands and highest in Britain, Sweden, Norway, Poland and Israel. Fluidity increased in France, Sweden and the Netherlands and possibly in Ireland, Hungary and Poland too. The increases in the Netherlands and Hungary were particularly marked. These different trends have left several countries – Sweden, Norway, Poland, Hungary and the Netherlands – with, as far as we can tell, rather similar rates of fluidity, followed by Britain (where the absence of change has led to a shift in its relative position), Ireland, France, Italy and Germany, which remains the country with the strongest association between class origins and class destinations. At the other extreme, Israel is consistently more open than any other country. Overall, however, we can find no convincing evidence of convergence in fluidity regimes: for example, the within decade variance of the  $\beta$ s shown in Figure 4 is largest for the 1980s and the  $\Delta$  for CnSF across countries in each decade is larger for the 1990s than for the 1980s.

The picture among women (Figure 5) is very similar. Once again, the points for the 1970s are above those for the 1980s which are above those for the 1990s, indicating a general tendency for fluidity to increase, with Britain being an exception. The average  $\beta$  falls from 1.28 in the 1970s to 1.14 in the 1980s and 1.05 in the 1990s. France and Germany are the least fluid societies, Britain, Sweden Poland, and, by the 1990s, the Netherlands are the most fluid. Hungary presents a different picture for women than men, the former showing much lower fluidity, compared with

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<sup>8</sup> LmSF means ‘log-multiplicative social fluidity’ (by analogy with CnSF – ‘common social fluidity’). We use LmSF to refer to the unidiff (Erikson and Goldthorpe 1992) or log-multiplicative layer effect model (Xie 1992) when the local association is modeled in a completely unspecified way (as it is in CnSF).

other countries, than the latter. In Israel the values are 0.84 in the 1970s and 0.71 in the 1990s. Taken together with the results for men this is evidence of the exceptionally fluid nature of Israeli society.

Table 7 summarizes the results about the trend in fluidity in each country as these are reported in the country chapters and in the comparative analysis. As one would expect, there is a good deal of consistency between each pair of results, though in three cases – men in Germany, Sweden and Poland – they point to different conclusions, and we shall deal with each of these in turn.

[TABLE 7 HERE]

In the German case, on the basis of data aggregated into three periods (1976-80, 1982-90 and 1991-99), Müller and Pollak argue that there are indications of increasing fluidity among West-German men. However, although the parameters of the unidiff model show a steady decline, the model itself fails to improve on constant fluidity. Thus, applying the same models to the data, the German analysis and the comparative analysis are in agreement. Müller and Pollak's argument for increasing fluidity rests on the gradual improvement in fit of the core model over the three periods and the fact that most of its parameters decline in value. But their conclusions are far from unequivocal.

‘... in some respects social fluidity has increased ... especially due to the decline in hierarchy barriers in intergenerational class mobility ... But other peculiarities ... did not really change. Germany continues to have strong inheritance effects, particularly weak sector barriers as well as particularly marked distinctions between a manual and a non-manual space of social mobility’ (Müller and Pollak, this volume: 000).<sup>9</sup>

Earlier we pointed to the sparseness of the German data, and this may explain the lack of clarity about possible trends in German fluidity.

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<sup>9</sup> Müller and Pollak do not fit the core model to data for women. In Table 4.5 they show that the LmSF model does not improve on the model of common fluidity.

Jonsson initially groups the Swedish data into pairs of years, so giving 12 periods covering 1976-7 to 1998-9. He later groups the data into six four-year periods. In neither case does he find change in fluidity among men though he does find it among women where there seems to be an across-the-board increase in fluidity. There are two differences between Jonsson's analysis and the comparative analysis. First, Jonsson places members of class IIIb in class VII, whereas in the comparative analysis they are in class III; and, secondly, in the latter, the surveys are analysed by single year or grouped into decades. These seem, however, rather minor differences, and any trend that is sensitive to them might be considered to be rather weak. Certainly, when we analyzed the annual data, the evidence for growing fluidity was the improvement in fit of the linear LmSF model over CnSF: LmSF itself was no improvement. The trend in the decade data, however, is evident when we use either LmSF itself or its linear version, suggesting, perhaps, that once short term fluctuations are removed from the data through the process of aggregation, the trend towards higher fluidity becomes evident. Nevertheless, the Swedish case – in respect of men, though not women - must be surrounded by a margin of uncertainty.

Mach, in the Polish analysis, weights the very large first survey (from 1972) so that it has the same sample size as the 1988 survey. The result is then no change in fluidity among men but a steady increase in fluidity among women. We do not follow this same weighting procedure: nevertheless the difference in results for men reinforces our warning about the sensitivity of the Polish results to the 1972 data, without which we found no trend in fluidity.

In Table 7 the question mark in the column for Britain reflects the uncertain result that Goldthorpe and Mills find in respect of women: in one of their data sets, but not the other, they detect increasing fluidity. We might also have placed a question mark next to the Irish result. Using three surveys, Layte and Whelan find no clear trend towards increasing fluidity among men.

Our findings therefore suggest very modest changes over time. ... We do observe a slight reduction in the barriers to long range movement but the stability of the overall pattern indicates that the general shape of class advantage has been maintained over time (Layte and Whelan, this volume: 000).

The parameters of the LmSF model show a decrease in social fluidity in 1987 compared with 1973 and then an increase in 1994. On the grounds that the 1994 value is significantly different from both the 1973 and 1987 values, fluidity may be said to have increased, but the non-linear pattern of change should warn us to be cautious about drawing any firm conclusions among trends.

Overall, the results from our 11 countries point to a clear conclusion: there is a widespread tendency for social fluidity to increase, even though this might not be a statistically significant trend in every case. Among men, the value of  $\beta$  is less at the end of the period than at the start in every country except Britain and Israel (where the values remain the same). Furthermore, of the 20 decade to decade changes in the  $\beta$  parameter reported either in the country chapters or, for the most part, in Chapter 3, we find that in 16 of them the  $\beta$  parameter declined, and it increased in three – in Ireland and Britain between the 1970s and 1980s and in Norway between the 1980s and 1990s. There is just one further notable case in which fluidity fell (but which is obscured by the use of aggregated decade data) and that is Hungary where fluidity declined significantly between the 1992 and 2000 observations. Although there are some cases (such as Sweden) where we cannot be unequivocal about an increase in fluidity, we can say with confidence that nowhere (with the possible exception of post-Communist Hungary) is there any evidence of a trend in the opposite direction.<sup>10</sup> For women the picture is very similar. Of 18 decade to decade changes, two of them show an increase in  $\beta$  (Germany between the 1980s and 1990s, Britain between the 1970s and 1980s) while 14 show a decline.

### **Common Social Fluidity?**

A striking result evident in many of the analyses presented in this volume is that the values of  $\Delta$  for models allowing temporal change in fluidity, or cross-national variation, are often not greatly different from those deriving from models of no change or commonality. For example, when we analyzed our data according to decade, a very small index of dissimilarity was returned by a model that allowed for no temporal or cross-national variation in social fluidity (3.95 per cent for men and 3.81 for women) and allowing for such variation only improved  $\Delta$  by, at most, two

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<sup>10</sup> Our belief that this change in Hungary might indeed reflect an underlying increase in the rigidity of the mobility regime is given support from a recent finding by Gerber and Hout (forthcoming) of a decline in Russian fluidity in the 1990s.

percentage points. This compares with a  $\Delta$  of around 15 per cent in models in which origins and destinations are independent. Much the same picture emerged when we used annual data, and arguments like this usually lead to the conclusion that most social fluidity is common and invariant over time, so supporting the FJH thesis. Sometimes the same point is made using the deviance, rather than  $\Delta$ , as the yardstick, and here the result is even more extreme. For example, 90 per cent of the deviance returned by the model of independence disappears when we add common (among countries and over decades) social fluidity, and a model allowing fluidity to change over time and differ between countries improves it only by a further seven per cent. Taken together, the decompositions of the deviance and of  $\Delta$  would seem to indicate that more than 85 per cent of social fluidity is common over nations and time.

But other measures suggest rather greater variation. In Figure 4, and in the additional analyses that included Israel, Norway and Italy, we saw that, among men, the association between origins and destinations was less than two-thirds as strong in Israel in the 1970s than it was in Britain and less than half as strong as in Germany, and there are similar differences between countries in women's fluidity (see Figure 5). Likewise, there have been large changes over time within several countries. For example, Figure 2 shows that, in the Netherlands, the log odds ratios among men in the 1990s were only three-quarters of their 1970s value. So, an odds ratio of 4 in the 1970s (equivalent to a log odds ratio of 1.39) would have declined to 2.8 ( $\ln(2.8) = 0.75 \times 1.39$ ) by the 1990s. The conclusion to be drawn from these apparently contradictory measures of the variation in fluidity is not that it is common or invariant, but, rather, that even quite substantial differences in fluidity have little impact on the distribution of cases over the mobility table – i.e. on observed, absolute mobility flows.<sup>11</sup> To illustrate this: if we take the fluidity pattern from the 1997 Italian men's table and insert it into the 1991 Israeli men's table, while preserving the Israeli marginal distributions, the  $\Delta$  between the real and the constructed Israeli tables is six per cent.<sup>12</sup> When we consider that the Israeli and Italian mobility regimes are close to the extremes of the range of fluidity found in our data (Israel has the lowest  $\beta$  of 0.64 while

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<sup>11</sup> An analogy may help to make the point. In a linear regression,  $Y = a + bX$ ,  $X$  (which is analogous to social fluidity) may display a lot of variation, but it will have little impact on  $Y$  (analogous to overall mobility) if the coefficient,  $b$ , is close to zero. Measures such as the change in  $\Delta$  or in  $G^2$  capture the strength of effect of fluidity on overall mobility, but they do not measure the variation in fluidity itself, and it is therefore mistaken to conclude, on this basis, that social fluidity itself is common and invariant.

<sup>12</sup> We use the observed Italian fluidity pattern, and thus the magnitude of the difference that we report does not depend on the adequacy of any particular model of fluidity.

the Italian value of 1.07 is exceeded only by Germany's) this suggests that six per cent represents the maximum impact of differences in fluidity on the distribution of individuals in the mobility table.

### **Origins, Education and Destinations**

Perhaps the simplest model of the mobility process that sociologists and others have used is the so-called 'OED triangle' illustrated in Figure 6. This is an attempt to capture the main paths that link class origins with class destinations. It is widely accepted that educational attainment is the major factor in mediating social fluidity (Ishida, Müller and Ridge, 1995; Marshall, Swift and Roberts, 1997), and the OED triangle allows for this by positing an effect of class origins on educational attainment (arrow A) and an effect of education on class destinations (B). Aside from this, there is then a residual direct effect from origins to destinations (C) which captures all that part of the origin – destination association that is not mediated through education. Of course, the model could be expanded to allow separate paths for other factors that have been identified as mediating the origin – destination association and in this way make it similar to the more complex path-analytic models associated with work in the status attainment tradition, a tradition initiated by Blau and Duncan (1967).

[FIGURE 6 HERE]

In the absence of well developed and testable behavioural theories of the social fluidity regime, a first step in furthering our understanding would be to determine the degree to which, in each country, changes in fluidity are driven by changes in each of these paths. A second step would then be to seek to account for them, whether this is in terms of changes in the impact of 'factors of production' or through some other means. In the log-linear and log-multiplicative modelling framework in which we, and the authors of the country chapters, have been working, although it is possible to estimate models for all paths of the OED triangle, it is not possible to carry out what is known as 'path analytic' decomposition. In this instance, a path analytic decomposition would measure the direct impact of class origins on destinations (path C) and its impact via education (paths A and B). As a result, although we can discuss trends in each of these paths, we



cannot (though see the appendix to this chapter) make definitive assessments of their relative importance for social fluidity.

Six of our country chapters analyze the role of education in social fluidity, though in the German case, a cohort, rather than a period perspective is taken. For the other five, the country chapters, together with other published research and some additional analyses that we have carried out (and which are available on request from the authors), allow us to draw the following conclusions about the three paths shown in Figure 6:

- (a) Origins to education (path A in Figure 6): class inequality in educational attainment has declined in this period in France, Sweden, and the Netherlands but not in Ireland or Britain.
- (b) The effect of education on class destination, controlling for class origins (path B), has grown weaker over the period in France, Sweden, Ireland (see Whelan and Layte 2002), Britain and the Netherlands.
- (c) The partial effect of origins on destination, controlling for education (path C), remains constant in Ireland and Britain but declines in the Netherlands.
- (d) In the French case, Vallet reports a compositional effect deriving from an interaction between origins, destinations and education. The association between origins and destinations is weaker among people in higher educational categories, and, as more people reach those categories, so there is an overall reduction in the strength of the association between origins and destinations. Hout (1988: 1388) earlier attributed some of the increase in social fluidity he observed in the USA to this compositional change. Our own analyses show that this effect is also present in Sweden.<sup>13</sup>
- (e) It is well known – and several of the country chapters confirm it – that education mainly mediates the hierarchical component of mobility and has little or no effect on other elements, particularly the tendency for self-recruitment among farmers and the petty-bourgeoisie.<sup>14</sup> Our own analyses (described in the appendix to this chapter) suggest that

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<sup>13</sup> If, in the French and Swedish cases, we did not take account of this effect by including a three-way interaction between origins, destinations and education in our model, then it would appear as a declining partial effect of origins on destinations (that is, the same change as we observe in the Dutch data).

<sup>14</sup> The Irish case may be thought typical in this respect: ‘Education served to mediate about half of the effects associated with position in the class hierarchy. However, it played almost no role in accounting for the inheritance or property effects that also serve to determine class outcomes’ (Whelan and Layte, this volume: 000).

the overall extent to which education mediates the impact of origins on destinations increased over the last decades of the 20<sup>th</sup> century but continues to vary considerably between countries. Its role is greatest in Sweden (which might therefore be described as the most meritocratic of our countries) and weakest in Britain.

In summary, we find several different mechanisms through which the increase in social fluidity in France and the Netherlands and possibly Sweden, and its constancy in Britain and possibly Ireland, might be explained. In all five countries, we observe a weakening of the link between education and class destination, but in France, Sweden and the Netherlands we see two further effects neither of which is found in Britain or Ireland. First, the link between class origins and educational attainment has weakened; and, secondly, the direct partial effect of origins on destinations, controlling for education, has also declined. In France and Sweden (though not in the Netherlands) this seems to be due, at least in part, to the growth in the proportion of people with higher levels of educational attainment.

Applying such arguments to the OED triangle we should expect a weakening of paths A and C and a strengthening of path B. What we in fact see is that all the paths either show a tendency to remain unchanged or to weaken. This certainly implies declining ascription, and, indeed, we have seen a general tendency for social fluidity to increase. But it does not imply a growth in the importance of achievement, at least as this is captured in our measure of educational qualifications. Furthermore, although, as we noted earlier, education is considered to be the major factor mediating social fluidity, our results show that it nevertheless plays a minor role when compared with the direct partial effect from origins to destinations. And it is this path, of course, which captures the workings of all the heterogenous factors that Bowles and Gintis's (2002) arguments would point towards as important determinants of the association between origins and destinations.

The complexity of social fluidity, especially in a period perspective such as we have adopted here<sup>15</sup>, makes it resistant to simple explanation. We have seen that fluidity can and does change

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<sup>15</sup> A period perspective means focusing on change over historical time as opposed to, say, a cohort perspective, according to which we would compare mobility among groups born at different times. There are strong arguments for focusing on cohorts as well as periods in mobility analysis. The German chapter in this volume provides a good example in which changes in fluidity – first a decline then an increase – can be attributed to specific historical events

for several reasons, and the end result is a consequence of several diverse processes. This means that, as far as policy prescriptions for raising the level of social fluidity are concerned, things are equally complex. In our analysis of the OED triangle we found a consistent weakening of the link between education and destination. As long as education is positively correlated with class origins, a decline in the positive partial association between education and destination, holding constant the partial origin – destination association, should result in an increase in fluidity. But, not only is this effect not well understood, it does not lend itself to any policies that a government might want to encourage and, indeed, by itself it may not always be sufficient to increase fluidity significantly, as the British case shows. This leaves three mechanisms, any of which is able to contribute to greater fluidity. In those cases where social fluidity is greater among those with higher educational qualifications, a simple change in the distribution of education towards a greater share of more highly educated people can cause a general rise in fluidity. This seems to have been particularly important in France and, adopting a cohort, rather than a period, perspective, Breen and Jonsson (2003) show that changes in fluidity between successive Swedish birth cohorts can largely be attributed to changes in the distribution of educational attainment. But a necessary condition for this is that the origin – destination association should indeed differ by educational level, and there is no reason to suppose that this will always be the case, as the Dutch example shows. Furthermore, a policy to increase enrolments in higher education with a view to increasing social fluidity will not be effective if this also changes the degree to which labour markets for the more highly educated operate on a meritocratic basis. In fact, Vallet finds exactly this trend in France: ‘as education has expanded and the highest educational categories have grown in size, the capability of advanced education to weaken the ‘ascriptive effect’ has declined.’

The second mechanism seems to have been partially responsible for the increase in Dutch fluidity: this is the weakening impact of origins on destinations when the effect of education is taken into account. Such a change is capable of exerting a large effect on social fluidity, though this may be unsurprising given that this ‘residual’ path captures all the non-educational influences on social fluidity. These include avenues of inter-generational transmission based on

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that affected particular birth cohorts but which, because period data aggregate the experiences of different cohorts, cannot be seen there.

the inheritance of property, on unmeasured (in mobility studies) factors that may be contextual (such as access to particular networks), individual (preferences and abilities whose effects are not mediated via education), and processual (discrimination and the hiring practices of employing organisations), as well as any contingencies that induce an association between origins and destinations. Evidently what is required is some understanding of the exact nature and relative importance of these which would then yield a basis on which to assess whether and how they might be susceptible to deliberate change.

Lastly, a decline in the association between class origins and educational attainment will also tend to lead to greater fluidity, but we should be cautious about the possible extent of this. For one thing, as the effect of education on destination also diminishes, changes in the origin – education association will have a smaller payoff. In addition, the effect on social fluidity of changes in the origin to education and education to destination paths will depend on how much fluidity is accounted for in this way. In Sweden, a great deal of it is mediated in this way, and so further reductions in class inequality in educational attainment will be more consequential for social fluidity here than would the same reductions in, say, Britain.

### **Some conclusions**

Our results directly contradict the FJH hypothesis of a basic similarity in social fluidity in all industrial societies ‘with a market economy and a nuclear family system’ (Featherman, Jones and Hauser 1975: 340) and they also go against Erikson and Goldthorpe’s (1992: 367) claim that ‘relative rates possess a high degree of temporal stability’. It is certainly true that, across countries and time periods, a common pattern of social fluidity could be said to hold reasonably well, and, indeed, this is the basis on which we then employed the LmSF model and used the resulting  $\beta$  values to capture cross-national and temporal variation<sup>16</sup> but, as is evident from such analyses, there is considerable difference in the strength of fluidity between countries like Israel and Sweden, on the one hand, and Italy, France and Germany on the other, or between the Netherlands in the 1970s and the Netherlands in the 1990s. However, although there is variation in fluidity regimes, this makes little difference to the patterns of mobility that we observe.

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<sup>16</sup> And, of course, the model from which these  $\beta$  values are derived ignores variation between countries in their pattern, as distinct from their level, of fluidity, and thus understates the extent of cross-national differences.

Is the variation in fluidity between countries systematic in the way in which the liberal theory might suggest? Our answer is no. The stage of economic development of our countries varies rather little, but, even so, we could find no evident link between their ranking in fluidity terms (Figures 4 and 5) and their GDP per capita. Nor did we find any support for Erikson and Goldthorpe's argument that fluidity is related to income inequality: there is no significant association between a country's fluidity (as measured by its LmSF  $\beta$  parameter) and its Gini coefficient. Overall we could discern no tendencies towards either convergence or divergence in fluidity, and thus the hypothesis that, as nations have come to follow different policy trajectories – particularly in economic policy – so we might see growing differences between them in fluidity, receives no support. There is some indication, in Figures 3.3 and 3.5, and in the further analyses reported in the text, that fluidity is greater in state socialist (Poland and Hungary) and social democratic (Norway and Sweden) countries, and the argument for such a political explanation receives additional support from the finding of declining fluidity in Hungary during the 1990s. But, on the other hand, we observe very high fluidity in Israel and data from the General Social Survey (made available to us by Mike Hout), shows that fluidity is high in the United States. This leads to the conclusion that direct political intervention of the kinds associated with state-socialist and social democratic societies may be one means by which a society can reach relatively high rates of fluidity, but it is not the only one. Is the change over time within countries systematic? Our answer to this question is no, although we can point to some factors that may have contributed to change or stability in fluidity. In particular, the decline in the associations between origins and educational attainment and between origins and destinations, when holding education constant, seem to be significantly linked with increasing social fluidity.

However, there are undoubtedly other influences on fluidity that have nothing to do with government policy, the education system, the workings of the labour market, and suchlike. On the one hand, we need to be aware of the possibility of purely artefactual sources of variation arising from differences in the way that the data themselves represent the underlying phenomenon of interest. On the other, what we might call contingent factors, which are usually omitted from any theoretical discussion of social fluidity, may play an important role in shaping

what we observe. Müller and Pollak's chapter provides a good example. They attribute the high fluidity they find among people born in the 1920s to the massive migration from the eastern part of Germany that occurred following the Second World War. The measured class origins of this cohort are thus their pre-migration origins, which had very little relevance in shaping their subsequent mobility patterns: the physical detaching of a large share of the cohort from their true origins led to higher measured social fluidity. The same argument may explain the high level of fluidity in Israel, a country in which a very large share of the population is comprised of immigrants.<sup>17</sup>

Mobility tables thus reflect a large number of underlying processes – artefactual, contingent and substantive – and this poses a severe challenge for attempts to explain observed patterns of social fluidity or to develop theories of such fluidity. For one thing, this aggregation of processes renders it difficult to explain variations in fluidity; for another, it may also be the case that some of the commonality that has often been observed in comparisons of social fluidity derives from the mixing together in the mobility tables of processes that, when investigated separately, might show greater and more systematic societal and temporal differences.

In any case, the results of this project should lead us to question the balance that mobility research has struck between social fluidity and absolute mobility. The emphasis, as in the chapters of this volume, has lain heavily on the former but, insofar as we are concerned with the mobility regime, this now seems inappropriate. This is by no means to deny that social fluidity tells us important things about the prevailing degree of inequality in the chances of attaining one class position rather than another,<sup>18</sup> and may be indicative of other characteristics of society. Nevertheless, although one would not want to say that fluidity can never make a difference (since we can easily construct examples in which extreme patterns of fluidity will be highly consequential for the distribution of cases in a mobility table), within the advanced industrial and post-industrial societies, the range of fluidity that we observe is relatively inconsequential in determining variation in mobility flows and in the life chances of individuals and families as

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<sup>17</sup> Yaish (2002) and Goldthorpe, Kraus and Yaish (1997) dispute the role of migration in accounting for high Israeli fluidity, though their analysis are inconclusive because of the small number of non-immigrants in Israel.

<sup>18</sup> And, for this purpose, odds ratios are an appropriate object on which to focus since, as Marshall and Swift (1996: 376) put it, 'the concept of equality is inherently comparative: it necessarily invites us to ... assess (the advantages of different groups) relative to one another' (parentheses added).

these are captured in measures of class position. Many previous authors (such as Grusky and Hauser 1984; Goldthorpe 1985) have called for more attention to be paid to structural change, but, as Erikson and Goldthorpe (1992: 104, 189) suggest, it is not clear how such change should be explained nor, indeed, whether it might not better be approached as a matter of historical description rather than sociological explanation. But while this might be a valid concern if we conceive of class structures as macro-sociological phenomena, it may be less so, and may leave open the possibility of sociological explanation, if we were to turn our attention to the detailed evolution of businesses and firms and of the jobs that constitute classes.

The one area in which a measure of convergence is apparent is in class structures and rates of absolute mobility. In Chapter 1 we quoted Erikson and Goldthorpe's (1992:375) statement that 'the structural contexts of mobility that are created by the development of industrial societies vary substantially – and so, in turn, then do their absolute mobility rates'. We can add that this variation is nowadays rather less substantial, mainly because of the near completion, in all our countries, of the transition out of farming, and, less significantly, the partial decline of the working class. It might be appropriate to conclude by returning to the Lipset Zetterberg hypothesis that, as we wrote in Chapter 1, has hitherto received rather short shrift from mobility analysts. Taken strictly, its assertion that that 'the overall pattern of social mobility appears to be much the same in the industrial societies of various western countries' (Lipset and Zetterberg 1959:13) is clearly wrong, but, if current trends in the development of class structures are maintained, then, despite the large differences between them in their patterns of fluidity, the countries of Europe may yet prove Lipset and Zetterberg's assertion true.

## **APPENDIX: An approximate path analytic decomposition of the OED triangle**

We would like to know how much of the gross or unconditional OD association (in other words, social fluidity) is mediated via educational attainment and, following from this, how much of the change in fluidity comes about through changes in the effects of origins on educational attainment and of educational attainment on class destinations. If we had continuous measures of social position we could do this using path analysis, but with categorical variables this is not possible. We have therefore developed the following approximation.

Our starting point has to be a measure of the gross OD association, and so we simply fit the log-multiplicative  $OD\beta_T$  model to the three way origin by destination by decade table. Turning to a four-way table of origins by destinations by decade by education, we could fit a model which included the partial effects of education on destination controlling for origins and the partial effects of origin on destination controlling for education (corresponding to paths B and C in Figure 6). The latter could also be fitted using a log-multiplicative specification. But we could not simply use the  $\beta$ s from these two models to compare the gross and partial OD association, because the pattern of association itself will differ between them. That is, the pattern of OD association that evolves log-multiplicatively over decades will be different if we control for the effect of education on destinations than if we do not. On the other hand, if we could force the pattern (though not the strength) of the OD association in the partial model to be the same as the estimated gross OD association then we could use the  $\beta$  parameters from the two models to compare the relative strength of the association with and without controlling for the effect of education. Unfortunately, we have good grounds for supposing that the pattern of the OD association will differ significantly depending on whether education is in the model or not. Educational attainment has different impacts on different channels of mobility: in particular, entry into self-employment or farming among children born into these classes is a question of inheritance, rather than of educational attainment (Ishida, Müller and Ridge, 1995). With this in mind, we therefore fit the  $OD\beta_T$  model to the origin by destination by decade table together with a parameter applied to each cell on the main diagonal of the table (but whose effects are held constant over decades). We then force the partial OD associations to have the same pattern of local origin – destination association as in the gross model, but we allow the diagonal parameters



to differ between the partial and gross models (but not to change over time). By making separate provision for the cells on the main diagonal we hope to take care of those cases in which education may have weaker effects in mediating mobility. We are assuming, therefore, that the effect, on the origin – destination association, of introducing educational attainment, is to change the strength, but not the pattern, of that association, except in those parts of the table that relate to individuals found in the same class as the one they were brought up in. Here we allow the pattern of association to vary freely and thus build into the model no assumptions about how education will influence this.

In summary we have the gross ODT, or social fluidity, model which we write as  $OD\beta_T + \text{diag}$ ; and we have a model in which class destination,  $D$ , is taken as the dependent variable and from which we derive our partial effect of origins on destinations. This model is  $OET\ EDT\ X^{OD}\beta_T + \text{diag}$ .  $X^{OD}$  is the OD association which is fixed to be equal to that estimated from the gross model. We fit the OET and EDT margins exactly in order to focus on the difference between the  $\beta$ s from the gross and partial models. Note that in the partial model, as in the gross model, the diagonal effects do not vary over decades. The payoff to this strategy is that we can now compare the coefficients from the gross and partial OD associations using only two sets of measures: the diagonal parameters, where change tells us the influence of education on class inheritance, and the  $\beta$  parameters, which tell us the extent to which the overall association is weakened once we take education into account. In other words, the difference between the gross and partial values of  $\beta$  tell us how much of the origin – destination association is mediated by education.

We apply this approach to four of our countries: France, Britain, Sweden and the Netherlands. We choose them because they display rather different trends in fluidity: increasing in France, Sweden and the Netherlands (with the most pronounced increase in the last of these) and remaining constant in Britain. In analysing the OED triangle in these countries we use a four-way table of class origins by educational attainment by class destination by decade (distinguishing the 1970s, 1980s and 1990s).<sup>19</sup> Because this is a rather large table (with 882 cells

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<sup>19</sup> We carry out this final analysis using only data for men, not least because changes in women's labour force participation would introduce complications in interpreting results for them.

in France, Britain and the Netherlands and 648 in Sweden) large samples are needed if our statistical tests are going to have sufficient power. The French, British, Swedish and Dutch data are among the biggest we have (see Table 3) and we regard the French, British and Swedish data as being of a very high degree of comparability over time.

Our educational attainment measure uses the CASMIN educational categories, defined as follows:

- 1ab: compulsory elementary education or less;
- 1c: compulsory elementary education plus vocational training;
- 2ab: lower or intermediate secondary education;
- 2cd: higher secondary education;
- 3a: lower tertiary education;
- 3b: higher tertiary education (an undergraduate degree or higher).

Table B15.1 shows the  $\beta$  parameters from the gross and partial models. They point to the same conclusion as before: fluidity has increased in France, Sweden and the Netherlands but, in Britain, even though the  $\beta$ s show a downward trend, this is not statistically significant. Once again, the increase in fluidity is largest in the Netherlands. The  $\beta$ s for the partial OD effect show that in France, Britain and the Netherlands, in the 1970s, just over one-fifth of the origin – destination association was mediated via education: in Sweden just over two-fifths. In the 1990s this had increased to almost half in Sweden, one-third in France and around one-quarter in Britain and the Netherlands. The decline across decades in the partial effect mirrors that of the gross effect. In France and Sweden the gap between the gross and partial effect widened considerably over time, leading to the conclusion that the partial origin – destination path has been an important source of temporal change in social fluidity.

[TABLE B15.1 HERE]

Table B15.2 reports the parameters for the diagonal cells of the mobility table parameters – from the gross model that takes no account of the effect of education and from the partial model.

Comparing these two allows us to see the extent to which adding the influence of education changes the tendency towards class inheritance. By and large, where the gross and partial effects differ, this is because the latter are smaller than the former, and this suggests that some of the tendency for class self-recruitment is explained as part of the more general processes linking educational attainment and class position. But, more obviously, this effect is rather minor (for example, in France, only the parameter for class I+II shows any difference) and so, in those cases in which class inheritance is very important (notably in class IVc in all four countries and in IVab and VIIb in some) its effect remains pronounced even controlling for education.

[TABLE B15.2 HERE]

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*Table 1: Countries and Authors*

West Germany: Walter Müller and Reinhard Pollak

France: Louis-André Vallet

Italy: Maurizio Pisati and Antonio Schizzerotto

The Republic of Ireland: Richard Layte and Christopher T. Whelan

Britain: John H. Goldthorpe and Colin Mills

Sweden: Jan O. Jonsson

Norway: Kristen Ringdal

Poland: Bogdan W. Mach

Hungary: Péter Róbert and Erzsébet Bukodi

Israel: Meir Yaish

The Netherlands: Harry B.G. Ganzeboom and Ruud Luijkx

Comparative analyses: Richard Breen and Ruud Luijkx

**Table 2: Sources of data**

<b>Country</b>	<b># tables</b>	<b>Sources of data</b>	<b>Years for which data are included</b>
Germany	22	Zumabus	1976-77 1979(2) 1980 1982
		Allbus	1980 1982 1984 1986 1988 1990-92 1994 1996 1998
		Politik in de BRD	1978 1980
		Wohlfahrtssurvey	1978
		German socio-economic panel	1986 1999
France	4	Formation-qualification professionnelle Insee surveys	1970 1977 1985 1993
Italy	2	National survey on social mobility	1985
		Italian household longitudinal survey	1997
Ireland	3	Survey of the determinants of occupational status and mobility	1973
		Survey of income distribution and poverty	1987
		Living in Ireland survey	1994
Great Britain	15	General household survey	1973 1975-76 1979-1984 1987-1992
Sweden	24	Annual surveys of living conditions (ULF)	1976-1999
Norway	3	Colbjørnsen et al. 1987	1982
		Moen et al. 1996	1994
		Level of Living Survey	1995
Poland	3	Zagorski 1976	1972
		Slomczynski 1989	1988
		Treiman/ Szelenyi	1994
Hungary	4	Social mobility and life history survey	1973 1983 1992
		Way of Life and Time Use Survey (Hungarian Central Statistical Office)	2000
Israel	2	Matras and Weintraub, 1977	1974
		Kraus and Toren 1992	1991
Netherlands	35	Parliamentary Election Study	1970 1971 1977 1981 1982 1986 1994 1998
		Political Action Survey I	1974 1979
		Justice of Income Survey	1976
		CBS Life Situation Survey	1977 1986
		National Labour Market Survey	1982
		National Prestige and Mobility Survey	1982
			1985 1988 1990 1992 1994 1996
		Strategic Labour Market Survey	1998
		Cultural Changes [ISSP]	1987
		Justice of Income Survey	1987
		Primary and Social Relationships	1987
		Social and Cultural Trends	1990
		Justice of Income Survey[ISJP]	1991
		Family Survey I, 1992-93	1992
		Households in the Netherlands pilot	1994
		Households in the Netherlands	1995
		Social Inequality in the Netherlands	1996
		National Crime Study	1996
		Social and Economic Attitudes	1998
		Netherlands Family Survey II	1998
Use of Information Technology	1999		

**Table 3: Original sample size by country and decade**

Country	Decade			Total
	70s	80s	90s	
	<b>Men</b>			
Germany	3339.0	7373.0	4183.0	14895.0
France	26516.5	14255.6	7549.7	48321.8
Italy		1823.0	2947.0	4770.0
Ireland	1877.6	2054.0	2698.2	6629.8
Great Britain	18014.5	32220.5	11619.0	61854.0
Sweden	7727.0	15856.7	14473.2	38056.9
Norway		962.0	2108.4	3070.4
Poland	27892.0	2086.0	901.0	30879.0
Hungary	10498.0	9439.8	10841.7	30779.5
Israel	2969.0		3555.0	6524.0
Netherlands	4688.6	6331.7	9973.4	20993.7
<b>Total</b>	103522.2	92402.3	70849.6	266774.1
	<b>Women</b>			
Germany	1674.0	3868.0	2245.0	7787.0
France	14784.5	9442.2	5310.6	29537.3
Italy		727.0	1705.0	2432.0
Great Britain	11575.0	22580.5	9120.0	43275.5
Sweden	6470.6	12827.3	12788.0	32085.9
Norway		567.0	1676.5	2243.5
Poland	24839.0	1859.0	724.0	27422.0
Hungary	7442.0	7526.7	8302.4	23271.1
Israel	959.0		2976.0	3935.0
Netherlands	1058.6	2335.3	5628.9	9022.8
<b>Total</b>	68802.7	61733.0	50476.4	181012.1



**Table 4a: Aggregate class structures (all men) in the 11 countries by decade**

	1970s	1980s	1990s
I+II	23.1	28.6	30.8
III	8.7	9.0	10.1
IVa+b	7.9	8.6	10.4
IVc	8.6	5.7	4.0
V+VI	27.7	27.6	27.1
VIIa	20.6	18.3	15.7
VIIb	3.5	2.3	2.0

Note: each country is weighted equally in computation of aggregate class structure

**Table 4b: Aggregate class structures (women in the labour force) in the 10 countries by decade**

	1970s	1980s	1990s
I+II	22.1	30.5	34.6
III	32.8	32.3	35.1
IVa+b	6.5	6.0	6.1
IVc	8.6	4.4	2.3
V+VI	6.1	6.3	7.1
VIIa	21.1	18.6	13.7
VIIb	2.8	1.7	1.2

Note: each country is weighted equally in computation of aggregate class structure

**Table 5: Percentage mobile by country in each decade (all men)**

<b>Total mobility</b>													
	Germany	France	Italy	Ireland	Great Britain	Sweden	Norway	Poland	Hungary	Israel	N'lands	Mean	Variance
1970s	61.6	66.6		56.7	63.0	70.8	-	59.4	77.5	74.4	66.3	66.3	48.0
1980s	62.1	67.5	69.5	61.3	61.8	71.4	71.9	61.0	74.9	-	67.7	66.9	25.8
1990s	60.3	67.0	72.1	66.1	60.8	71.0	68.1	67.4	71.6	74.3	65.7	67.7	19.9
<b>Vertical mobility</b>													
	Germany	France	Italy	Ireland	Great Britain	Sweden	Norway	Poland	Hungary	Israel	N'lands	Mean	Variance
1970s	44.1	43.8		39.9	50.7	54.0	-	40.9	53.0	43.7	50.6	46.7	28.5
1980s	45.8	45.9	40.8	42.6	50.8	54.7	55.2	42.9	55.8		54.1	48.9	34.6
1990s	46.3	46.3	46.3	45.5	50.7	55.2	52.1	45.9	53.7	50.4	54.0	49.7	13.9
<b>Upward mobility</b>													
	Germany	France	Italy	Ireland	Great Britain	Sweden	Norway	Poland	Hungary	Israel	N'lands	Mean	Variance
1970s	31.7	25.9		21.6	32.8	35.1	-	22.1	26.9	20.1	36.1	28.0	37.1
1980s	33.6	29.1	29.0	27.9	33.1	35.3	39.3	24.8	34.7		38.9	32.6	22.9
1990s	33.3	29.9	35.9	31.4	31.7	36.6	34.2	26.3	35.9	35.0	37.7	33.4	11.4
<b>Downward mobility</b>													
	Germany	France	Italy	Ireland	Great Britain	Sweden	Norway	Poland	Hungary	Israel	N'lands	Mean	Variance
1970s	12.4	17.9		18.4	17.9	19.0	-	18.8	26.2	23.5	14.5	18.7	17.3
1980s	12.2	16.8	11.8	14.7	17.7	19.4	15.9	18.0	21.1		15.2	16.3	8.7
1990s	13.0	16.4	10.4	14.1	19.0	18.6	17.9	19.6	17.8	15.4	16.3	16.2	8.0

**Table 6: Percentage mobile by country in each decade (women in the labour force)**

<b>Total mobility</b>												
	Germany	France	Italy	Great Britain	Sweden	Norway	Poland	Hungary	Israel	N'lands	Mean	Variance
1970s	74.0	71.4		78.8	73.1		50.8	81.0	76.5	74.0	72.5	86.4
1980s	75.6	77.6	74.3	76.3	73.6	76.2	66.3	79.5		73.9	74.8	13.7
1990s	72.6	77.2	75.0	73.9	73.2	77.4	76.2	76.5	82.2	72.3	75.7	8.8
<b>vertical mobility</b>												
	Germany	France	Italy	Great Britain	Sweden	Norway	Poland	Hungary	Israel	N'lands	Mean	Variance
1970s	48.6	41.7		52.1	55.4		34.0	54.1	44.9	51.4	47.8	52.2
1980s	48.8	45.7	51.0	52.6	56.4	54.1	48.5	58.2		51.4	51.9	15.7
1990s	47.3	46.0	47.9	53.2	57.9	53.0	50.3	55.7	53.5	53.6	51.8	14.8
<b>upward mobility</b>												
	Germany	France	Italy	Great Britain	Sweden	Norway	Poland	Hungary	Israel	N'lands	Mean	Variance
1970s	25.8	27.8		27.5	23.9		19.5	23.3	26.0	30.9	25.6	11.7
1980s	29.6	32.9	38.5	29.0	27.5	34.4	31.7	38.8		33.6	32.9	15.7
1990s	32.2	33.2	36.7	30.6	33.5	37.1	34.1	42.0	39.0	34.8	35.3	11.6
<b>downward mobility</b>												
	Germany	France	Italy	Great Britain	Sweden	Norway	Poland	Hungary	Israel	N'lands	Mean	Variance
1970s	22.8	13.9		24.6	31.5		14.4	30.8	19.0	20.5	22.2	44.2
1980s	19.2	12.8	12.5	23.7	28.9	19.8	16.8	19.4		17.8	19.0	26.0
1990s	15.2	12.8	11.3	22.5	24.4	15.9	16.2	13.7	14.5	18.8	16.5	17.6

Table 7: Trends in social fluidity by country (the first symbol refers to the results in the country chapter, the second to those in the comparative analysis)

	Germany	France	Italy	Ireland	Britain	Sweden	Norway	Poland	Hungary	Israel	Netherlands
Men	↑-	↑↑	↑	↑↑	--	-↑	↑	-↑	↑↑	-	↑↑
Women	--	↑↑	-	na	?-	↑↑	↑	↑↑	↑↑	-	↑↑

↑: increase in social fluidity

↓: decrease in social fluidity

-: no change

Table B15.1 Gross and Net association between origins and destinations,  $\beta$  parameters

	1970s	1980s	1990s	1970s	1980s	1990s
	<i>France</i>			<i>Britain</i>		
<b>Gross effect:</b> $OD\beta_T$	1	0.87	0.82	1	0.95	0.89
<b>Partial effect:</b> $X^{OD}\beta_T$	0.79	0.63	0.54	0.80	0.76	0.69
	<i>Sweden</i>			<i>Netherlands</i>		
<b>Gross effect:</b> $OD\beta_T$	1	0.91	0.83	1	0.82	0.70
<b>Partial effect:</b> $X^{OD}\beta_T$	0.58	0.48	0.42	0.81	0.65	0.53

Table B15.2: Diagonal effects from the unconditional (gross) and conditional (partial) models

Country	<i>France</i>		<i>Great Britain</i>		<i>Sweden</i>		<i>The Netherlands</i>	
Class	<b>Gross</b>	<b>Partial</b>	<b>Gross</b>	<b>Partial</b>	<b>Gross</b>	<b>Partial</b>	<b>Gross</b>	<b>Partial</b>
<b>I+II</b>	-0.16	-0.38	0.37	0.12	-0.56	-0.53	-0.43	-0.60
<b>III</b>	0.01	0.10	2.27	1.87	0.55	0.43	0.23	0.31
<b>IVab</b>	0.92	1.04	5.68	4.75	0.16	0.50	0.27	0.51
<b>IVc</b>	2.62	2.75	12.30	10.65	4.58	3.87	2.24	2.49
<b>V+VI</b>	-0.11	-0.01	-0.16	-0.07	0.71	0.50	0.32	0.34
<b>VIIa</b>	0.65	0.52	-0.14	-0.14	0.28	0.21	0.35	0.22
<b>VIIb</b>	2.64	2.36	2.36	2.30	-	-	-0.22	-0.08

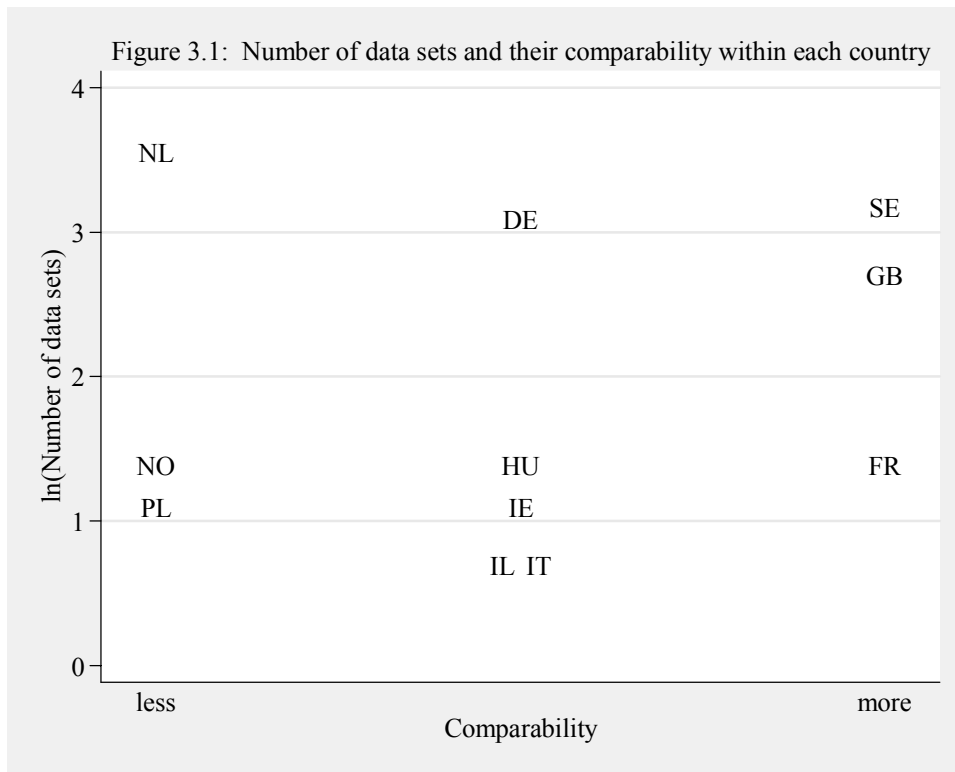
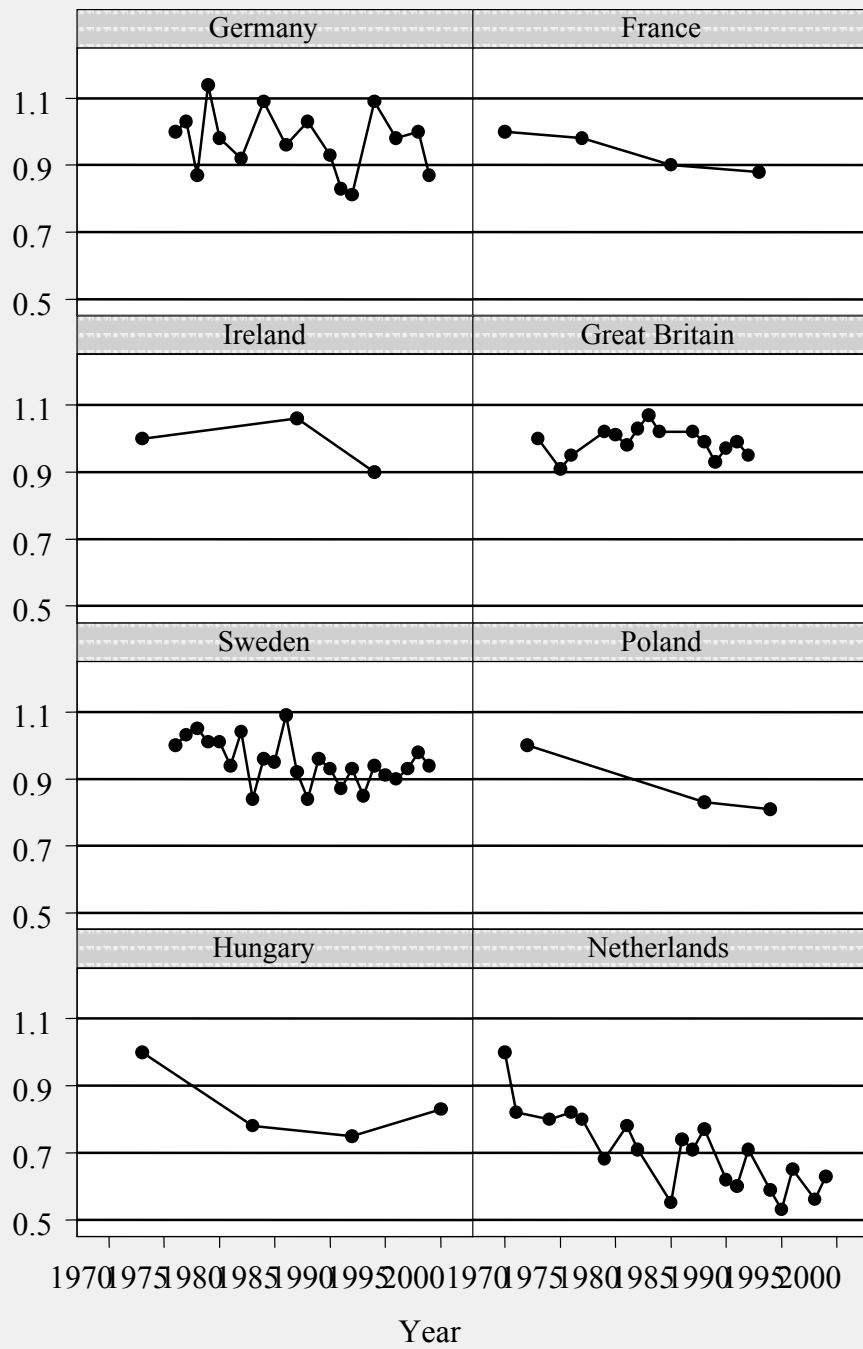


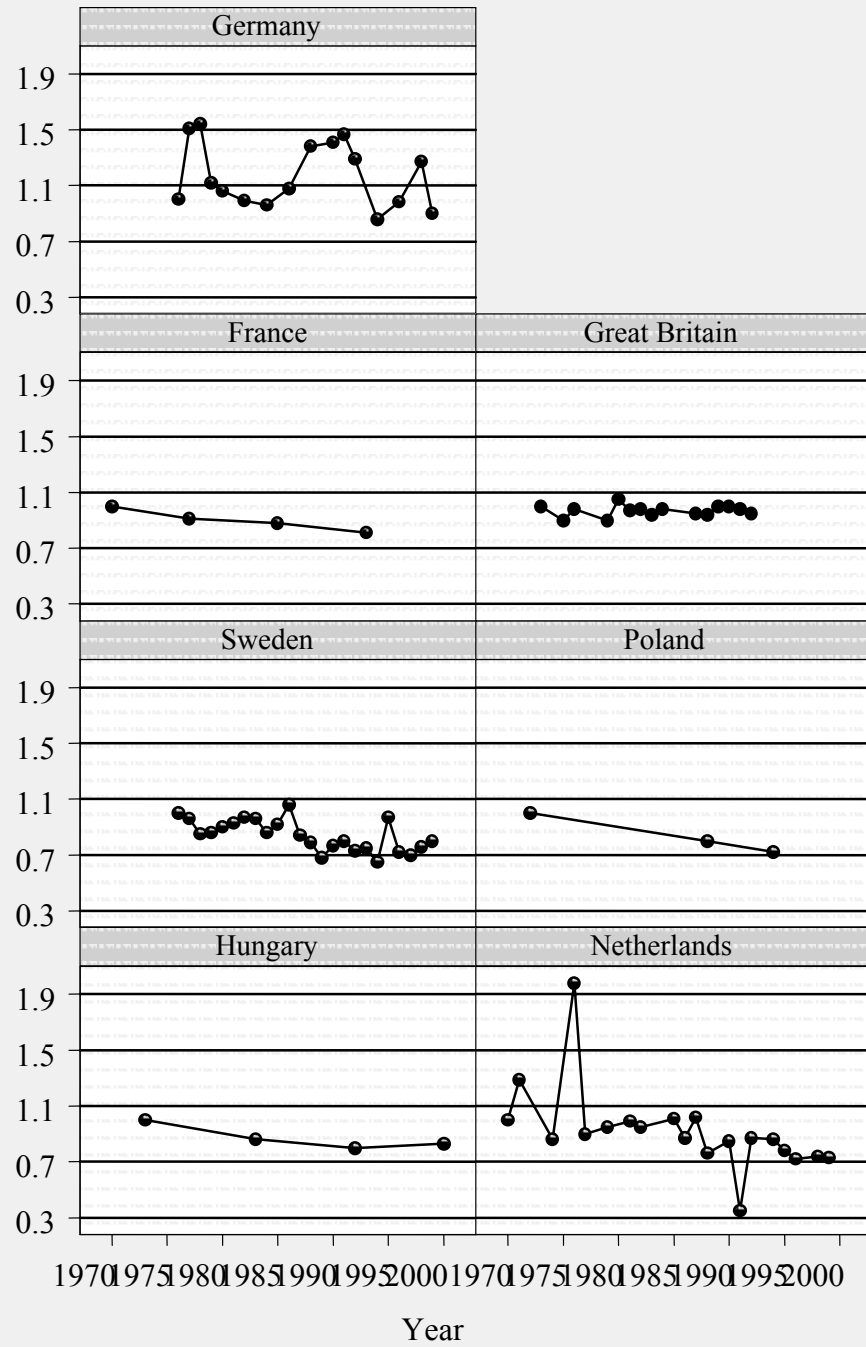
Figure 2: Annual LmSF (or unidiff) coefficients by country  
all men



Graphs by country



Figure 3: Annual LmSF (or unidiff) coefficients by country women in the labour force



Graphs by country

Figure 4: LmSF (or unidiff) coefficients per decade per country  
all men

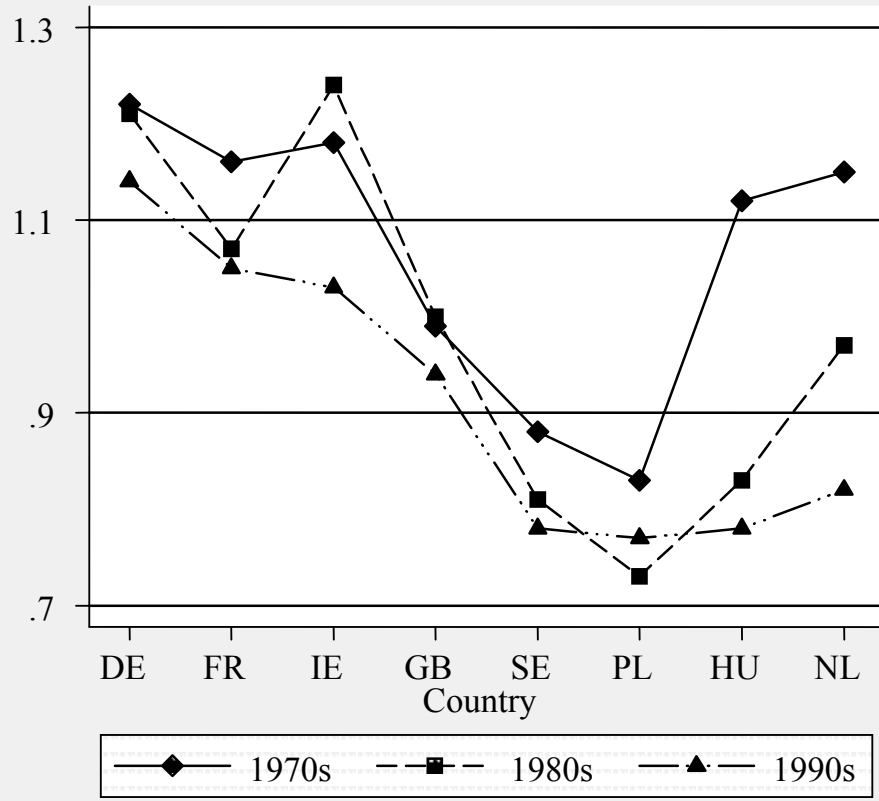
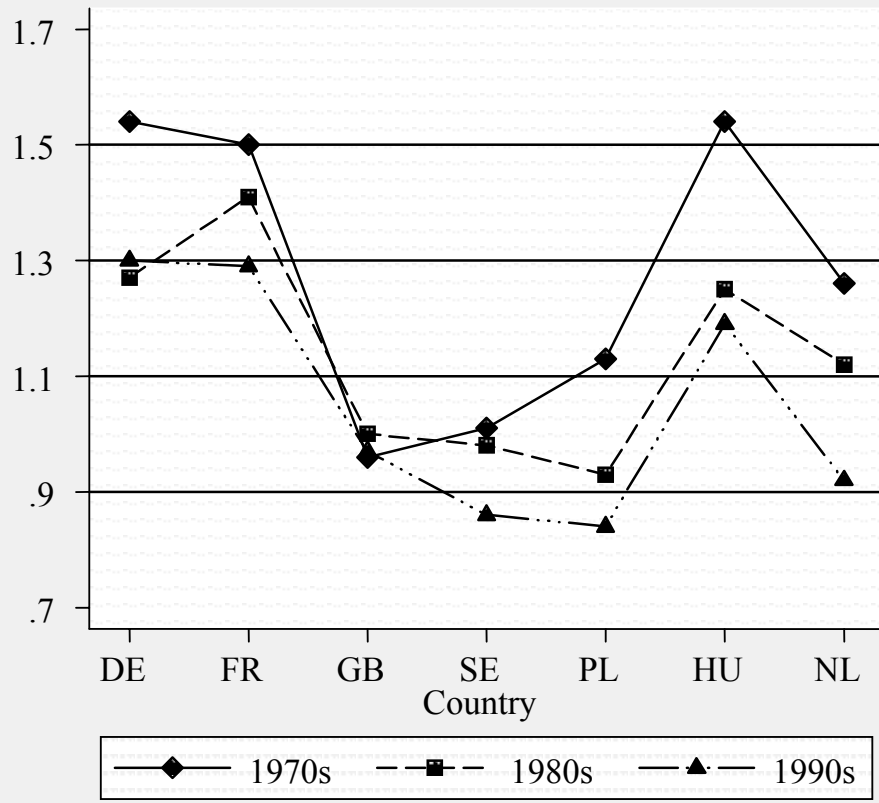


Figure 5: LmSF (or unidiff) coefficients per decade per country  
women in the labour force



**Figure 6: Origins, Education and Destinations: The OED triangle**

