

Employment in Europe 1997

Analysis of key issues

Employment & European Social Fund



Employment & social affairs



European Commission

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Introduction

This is the second in an annual series of special Bulletins published in conjunction with the *Employment in Europe* Report. The aim of the Bulletin is to analyse selected labour market issues in somewhat greater detail than is usually the case in the Report. In many cases, the analyses presented in these bulletins carry forward the analysis in the *Employment in Europe* report itself. In other cases, they present other work on employment issues which has been carried out in the context of the report.

The present Bulletin contains three studies of particular aspects of the process of employment growth and of the functioning of labour markets across the Union, all of which were themes of the *Employment in Europe* Report for 1997, published in October 1997. The first study examines the issue of employment-intensity which has become the focus of much policy attention in the recent past as job shortages have remained acute and the prospect of sustaining high rates of growth remains problematic. Its focus is on the significant differences which exist between countries in the number of people employed for a given level of economic wealth, as measured by GDP per head, which seems to reflect the influence of social and institutional factors on the job creation process. This implies, in turn, that the relationship between employment and output ought to be susceptible to policy.

The second study is concerned with the rate of job turnover in the Union, which is one indicator of labour market flexibility, though one which needs to be interpreted with some caution given the potential effect of restrictions on hiring and firing in stimulating the development of fixed-term contracts. The analysis points to marked differences between Member States in the proportion of people who change jobs every year and in the counterpart of this, which is the relative number who have been in the same job for a long period of time. It also indicates that the rate of turnover declines markedly with age and, in general, tends to be higher among the less well educated members of the work force than among the better educated and more qualified.

The third study examines both international and regional migration of working-age population in the Union, extending the analysis included in the 1997 *Employment in Europe* Report. It shows that while there are differences in the scale of labour movement between Europe and the US, these are less than often supposed and seem largely to reflect the obstacles to people moving from one Member State to another that still exist in the Union and which legislation alone cannot entirely overcome. Regional migration within countries in Europe is much the same as in the US. In both cases the direction tends to be influenced by relative labour market conditions as reflected in differential rates of unemployment. Nevertheless, the scale of movement varies substantially between Member States. Moreover, in many cases, movement is by no means in one direction and net flows can conceal significant numbers moving from low to high unemployment areas rather than the reverse.

Employment-intensity in the European Union

The notion of the employment-intensity, or employment-content, of growth has attracted a great deal of interest in Europe in recent years because of the growing gap between those looking for work and the jobs available, combined with the common recognition that the rates of economic growth experienced in the post-war years before the first world oil crisis in 1973–74 are almost certainly no longer achievable for most Member States, at least on a sustained basis. A central aim of policy across Europe is, therefore, to seek to ensure that as many jobs are generated from a given rate of growth as is compatible with other economic objectives, such as the maintenance of competitiveness and the growth of productive potential over the long-term. The concern in this paper is to try to provide new insights into this issue by analysing the differences which exist in the relationship between output and employment both between Europe, the US and Japan and between Member States within the Union.

The focus is on the way in which the people who are available to work in each country — ie the potential labour supply — are productively used to create wealth, which in some sense is the most meaningful measure of productivity. The approach adopted is to disaggregate GDP per head into a number of broad components which in combination determine the output which a country produces and its overall level of prosperity (see Box for the precise methodology).

One feature which emerges very forcibly from the data is that there are substantial differences between comparable countries with similar levels of prosperity in both the way in which this prosperity is generated and the level of employment which it supports. This suggests that the number of people in work is far from being the mechanistic result of market forces operating in some kind of institutional vacuum and that there is a significant element of choice (in a societal rather than an individual sense) over this.

In what follows, we first compare the components which make up GDP per head in the European Union as a whole with those for the US and Japan. Secondly, we examine differences in these components between Member States.

Thirdly, we extend the analysis to the broad sectoral level to see whether the differences which exist in aggregate are also evident across sectors. Fourthly, we focus on countries which have a relatively high proportion of their working-age population in work to see in which sectors of activity the additional people with jobs as compared with other countries tend to be employed.

Income, productivity and employment in Europe, the US and Japan

Although there has been a gradual narrowing of the gap over time, income per head in the US remains much higher than in Europe. In 1994, GDP per person measured in terms of purchasing power standards (PPS), was over 40% higher in the US than the average for the European Union (Graph 1 and Table 1). This difference is essentially due to a combination of higher labour productivity (GDP per hour worked being some 21% higher in the US than the European average) and a larger proportion of the population of working age being in employment (17% more). Average hours worked which are often thought to be higher in the US than in Europe seem in fact to be much the same (though the figures may not be precisely comparable), while a similar proportion of the population is of working age.

Since the mid-1980s, when the difference in GDP per head between the two economies was somewhat wider than in 1994 (7 percentage points or so), the productivity gap between the US and Europe has narrowed significantly (GDP per hour worked in 1985 was around a third higher in the former than in the latter). At the same time, however, the difference in the employment rate has widened almost as significantly, so offsetting much of the effect on the relative levels of income per head (Graph 2 and Table 2).

GDP per head in Japan, measured in the same terms, is also higher than in Europe (almost 20% higher). Unlike in the case of the US, this has nothing to do with differences in labour productivity — indeed, in Japan,

Methodology

Specifically, GDP per head, measured in terms of purchasing power standards (PPS) to allow for differences in what a given level of income is capable of purchasing in the various countries, is defined to be equal to the following identity in each country:

$$\frac{GDP}{POP} = \frac{GDP}{HRS} \times \frac{HRS}{EMP} \times \frac{EMP}{WAP} \times \frac{WAP}{POP}$$

where POP is total population, HRS is the total number of hours worked in the economy, EMP is the total number in employment and WAP is working-age population, here defined as those aged 15 to 64. The first term on the right-hand side of the equation is, therefore, GDP per hour of labour input, which is the most meaningful measure of labour productivity, the second term is average annual hours worked by those employed, the third term is the employment rate and the fourth term indicates the number of people of working-age who might be regarded as potentially available for work relative to total population.

The equation has been constructed for 1994, the latest year for which reasonably reliable figures for all the Member States plus the US and Japan are available both for the economy as a whole and for broad sectors (see below), as well as for 1985, from national accounts, labour force surveys and demographic statistics which are broadly comparable between countries, though there are a number of items which unavoidably involve some estimation (see Box on data).

The equation, of course, is merely an identity which says nothing about the direction of causation or the factors underlying each of the terms or, still less, about the overall effect of one of the terms changing or being changed by policy measures. Each of the terms, however, is of interest in its own right and, with the exception of the last one, a potential focus for policy. Even though it is not possible to draw any precise policy conclusions from the equation in itself, it is illuminating to examine the extent of variation in different countries between the terms and any pattern which exists between them, which reflect underlying relationships.

labour productivity is much lower than in Europe (20% lower in 1994) — but reflects a much higher employment rate (the number in work in Japan being 27% higher relative to working-age population than in Europe in 1994), longer average hours of work (11% longer) and a higher proportion of the population being of working-age (6% higher).

GDP per head in Japan has risen relative to the level in Europe since the mid-1980s, largely because of a higher growth in labour productivity which has offset a relative decline in working hours, though the employment rate has also risen, whereas in Europe it has remained unchanged.

Differences within the European Union

Disparities in income per head between Member States of the Union remain substantial, though at the extremes they have narrowed slightly since the mid-1980s (in Graph 1, Member States are ordered in terms of GDP per head). In 1994, GDP per head in the former West Germany (included in the analysis because of the special problems of the new Länder and in order to be comparable with the position in 1985) was almost twice the level in terms of PPS than in Greece (in Luxembourg, income per head is considerably higher than in West Germany — around a third higher — or in the US, but because of its particular features, especially its small size and the large commuting work force, it has been excluded from the analysis).

These disparities are partly associated with differences in levels of labour productivity and partly with differences in rates of employment, in the sense that there is some tendency for the more prosperous countries to have higher levels of productivity per hour worked and a higher proportion of their population in work. The association, however, is by no means systematic and there are striking differences in both productivity and employment rates between countries with similar levels of prosperity. It seems, therefore, that countries can compensate for low productivity by having more people in employment or, seen from the opposite perspective, can sacrifice productivity in order to have more people working. Equally, there seems to be some scope for countries to trade off working time for increased numbers in employment, though in general within the Union, average hours of work appear to be negatively related to income per head which might suggest that any trade-off is conditioned by a country's overall level of prosperity.

Data used in the analysis

The data for the study come mainly from two sources, the national accounts of the countries concerned (and specifically from the database compiled by DGII from national data) and the Community Labour Force Survey (LFS). The approach adopted is to use national accounts figures so far as possible in order to try to maintain internal data consistency, so that the data for value-added, compensation of employees and, for the most part, for the numbers employed come from this source. However, for a number of countries, there are problems with the employment data in the national accounts which make them not comparable with those for other countries and some adjustment is necessary.

Specifically, for Italy, the national accounts data for employment measure the number of jobs instead of the number of people in work; Labour Force Survey figures are, therefore, used instead. For the Netherlands, the data are adjusted for annual hours worked, so in this case labour accounts figures for numbers employed are used. For the UK, there are no sectoral data for total employed, only for wage and salary earners; the figures used, therefore, include estimates of self-employed based on the Labour Force Survey, but constrained to equal the national accounts figures for total employed. For Austria, the figures diverge markedly (they are some 10% lower) from the Mikrozensus data which are considered by the Austrian statistical authorities as the most reliable source of data on employment, so that the latter are used instead. In the case of Italy, the Netherlands and Austria, the division of employment between sectors is taken from the national accounts data and applied to the new totals.

For the remaining countries, the data on employment are reasonably close to the benchmark series produced by Eurostat (in some cases they are the same figures), which for each country represent what official statisticians in Member States regard as the most reliable indicators of the number in work. They are also in most cases reasonably close to the LFS figures, which are used for the detailed analysis of the sectoral distribution of employment, but for a few countries, there are differences which mean that the figures for employment rates, for example, in this part of the study are not always precisely the same as in the earlier part. It is also the case that the sectoral division of employment in the LFS differs slightly from the national accounts division.

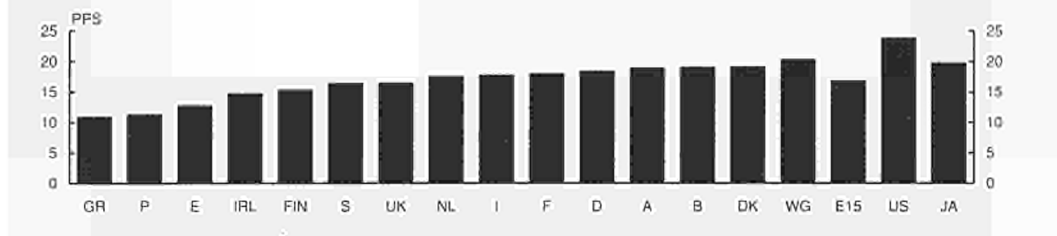
In addition, it should be noted that the sum of the data for value-added by sector in most countries does not equal the figure for GDP, the difference being as much as 10% in some cases. No adjustment is made for this in the analysis, except where value-added for each sector is expressed as a percentage of the total, where the total used is the sum of the sectors rather than GDP. For the US, the sectoral figures for value-added for 1994 are estimated.

The data on average hours worked come from the Community LFS where possible and are figures for usual hours worked per week (there are problems in using the figures for actual hours) and are converted to annual terms by using the estimates of average weeks worked per year produced by Eurostat. For Austria, Finland and Sweden, national sources are used instead for average weekly hours and in each case estimates of the number of weeks worked per year are applied to these. For, the US, the data come from the Bureau of Labour Statistics and for Japan, from OECD and relate to actual hours worked per year.

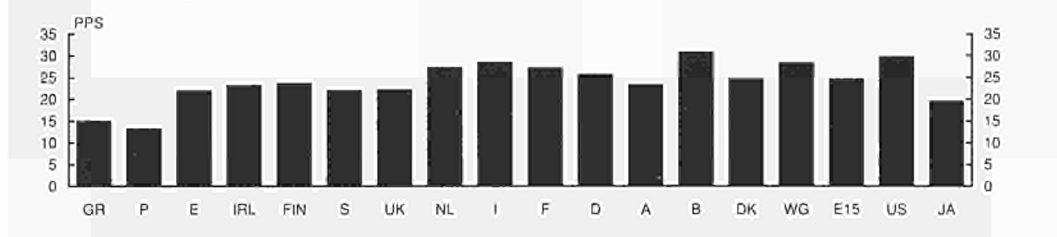
The data for working-age population (defined as those aged 15 to 64) come from the LFS in each case and differ slightly from the actual population in this age group in that they exclude many of those living in collective households.

1 Decomposition of GDP per head, 1994

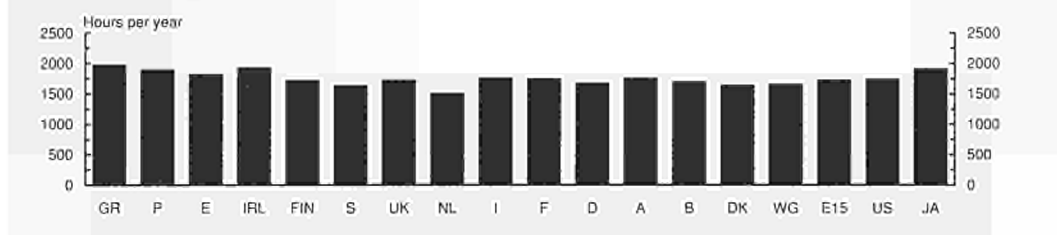
GDP per head



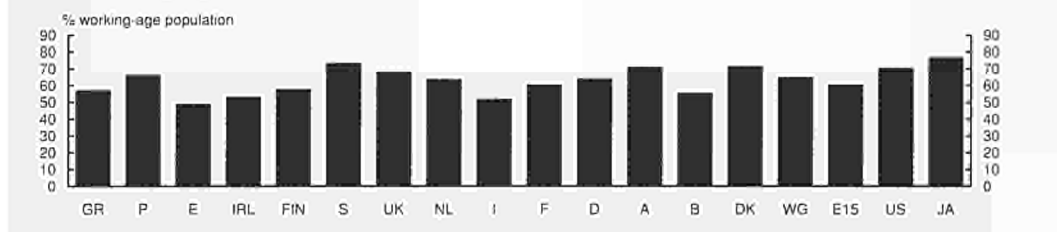
GDP per hour worked



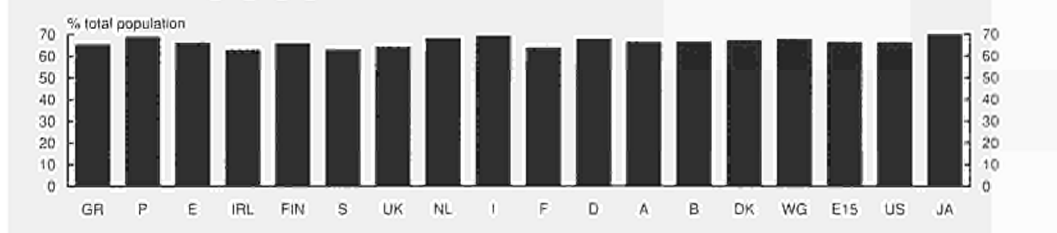
Average hours worked



Employment rate

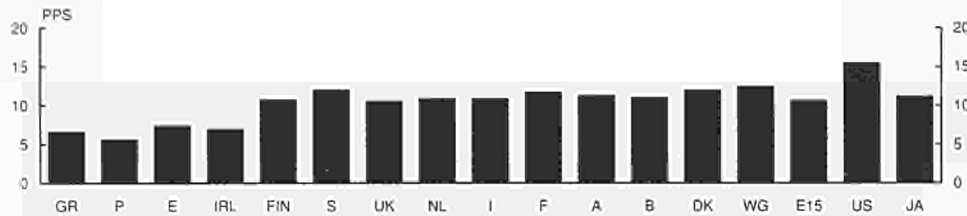


Working-age population as a share of total

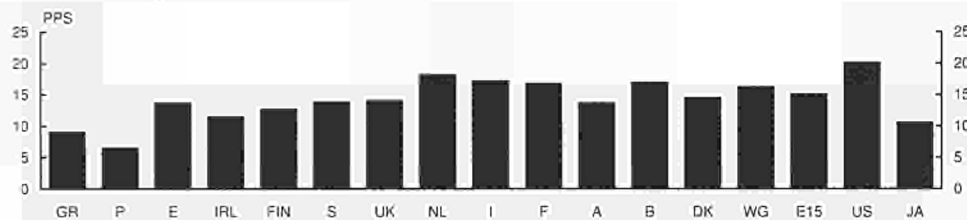


2 Decomposition of GDP per head, 1985

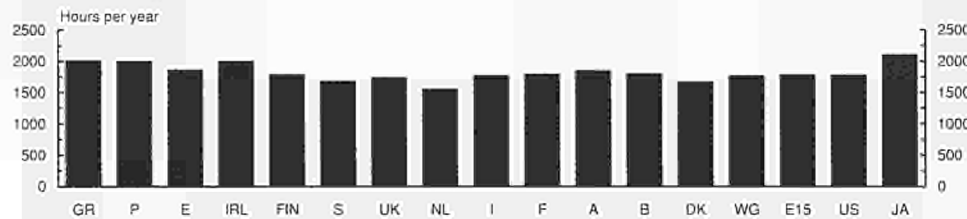
GDP per head



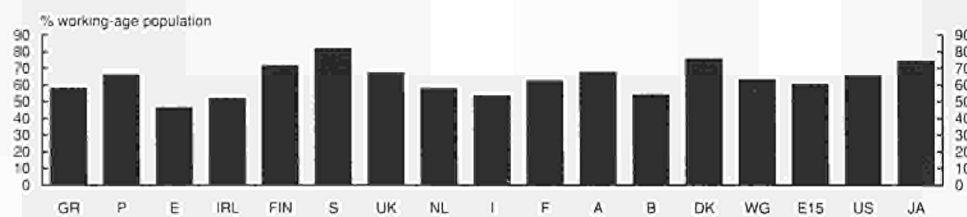
GDP per hour worked



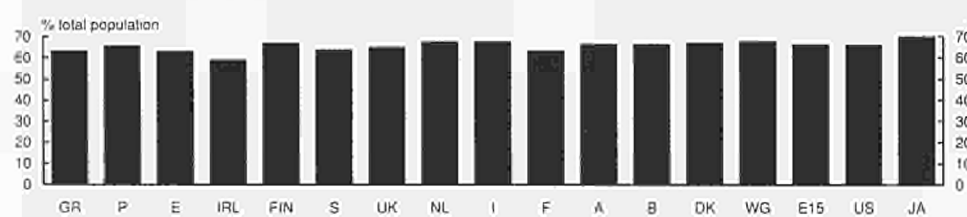
Average hours worked



Employment rate



Working-age population as a share of total



To take specific comparisons, Belgium has a similar level of GDP per head to both Austria and Denmark, but a considerably higher level of labour productivity than either of them combined with a much lower proportion of working-age population in employment. This is consistent with there being a trade-off between productivity and the number employed, not necessarily in any conscious or deliberate sense, but in the sense perhaps of the institutional framework in Belgium (defined in its broadest sense to encompass the full range of social and political as well as economic factors) not being conducive to job creation. Income is, therefore, distributed more through inter-personal transfers, especially within the family, in Belgium, where the participation rate of women is relatively low, than in the other two countries. Alternatively, the differential pattern between the countries may instead reflect the greater efforts made in Austria and Denmark to compensate for their low productivity by devoting more effort to getting people into work.

The same kind of difference is evident between Portugal and Spain. Although GDP per head in the latter is higher than in the former, the difference is markedly smaller than for productivity, which in Spain is some two-thirds higher than in Portugal, which effectively makes up for this difference by having substantially more people in employment than in Spain. Portugal, therefore, like Austria and Denmark, can be viewed as being a relatively employment-oriented society as compared with Spain, or Belgium, whether this is to compensate for relatively low productivity or is a consequence of it.

A comparison between Sweden and the UK suggests another form of trade-off. In this case, the two have similar levels of both GDP per head and productivity, but Sweden has a higher proportion of people of working age in employment than the UK (8% higher in 1994) because, it would seem, of shorter average hours worked. This apparent trade-off is much more evident in the case of Italy and the Netherlands, which are also countries with much the same levels of income per head and productivity, but average hours worked were almost 15% less in the Netherlands than in Italy in 1994 and the employment rate was over 20% higher.

Though differences in the proportion of the total population that is of working age are less pronounced than for the other components of GDP per head, they are, nevertheless, significant in some cases. Ireland and Sweden, in particular, are seemingly penalised from this perspective as compared with other Member States by having a relatively low proportion of the population aged 15 to 64

(in the former because of a high proportion of young people under 15, in the latter because of large numbers of older people), in the sense that they need to have higher productivity, longer hours of work or more people in employment relative to the population of working age to achieve a given level of GDP per head than, say, Italy or Portugal, which have the highest proportions (around 10% higher than Ireland or Sweden). From the opposite perspective, on the other hand, it could be argued that the former two countries are favoured rather than disfavoured by the structure of their populations, in the sense that they need to generate fewer jobs in order to achieve a given employment rate.

Finally, comparing the relative pattern of GDP per head and its components between countries in 1994 with that in 1985 reveals a certain degree of stability in most cases, the main changes being a decline in the relative prosperity of both Finland and Sweden, which was accompanied by a substantial reduction in the rates of employment, both in absolute and relative terms, and a increase in relative prosperity in Ireland which was associated with increased productivity.

Sectoral differences in output, productivity and employment

Disaggregating GDP and employment by broad sector indicates equally wide differences between countries both in the relative shares of value-added and jobs accounted for by manufacturing, services, agriculture and construction and the comparative levels of productivity in each. Comparing Europe with the US, the most striking differences are the much higher proportion of GDP generated in services in the US than in Europe and the larger number of jobs relative to working-age population that this produces. Thus, in 1994, some 73% of overall value-added in the US economy originated from service activities as compared with 67% in the European Union (in this case excluding Greece, Ireland and Portugal because of the lack of sectoral data) and these served to employ 53% of working-age population as opposed to only 40% in Europe. This contrasts with manufacturing which accounted for only 18% of value-added in the US as opposed to 21% in Europe. This difference, moreover, is reflected in a higher proportion of the working-age population being employed in manufacturing in Europe than in the US.

In both sectors, productivity in 1994 remained some 15–20% higher in the US than in Europe, though the gap has narrowed in each case since the mid-1980s

(productivity is here measured as above in terms of value-added per hour worked and expressed in PPS terms — see Box). Unlike in Europe, however, where the reverse was the case, productivity was slightly lower in services than in manufacturing. Moreover, in the US average hours worked were markedly higher in manufacturing than in services (over 15% higher), whereas in Europe the difference, on average at least, was small (only around 3%).

The difference in productivity in agriculture between the two economies is much more significant. In 1994, value-added per hour worked in this sector in the US was around 85% higher than in Europe (in 1985, it had been over twice as high) and many more people were employed in the latter in large measure because of the low productivity.

The position in Japan, however, is even more extreme. There, agriculture accounted for only 2% of total value-added in the economy in 1994, less than in Europe, and employed almost 6% of the population of working age, more than any country in Europe except Greece, Portugal and Ireland. In construction, the difference between Japan and the other two economies is equally striking. In 1994, it provided jobs for 8% of working-age population (and 10% of value-added), twice the proportion in either Europe or the US.

Japan, nevertheless, remains more oriented towards manufacturing than either Europe or the US, with this sector responsible for almost a quarter of overall value-added and providing jobs for 18% of its working-age population in 1994, though within Europe, the figures for both Germany and Austria are similar. Nevertheless, in addition to its relatively large manufacturing sector, Japan also has a comparatively high level of employment in services, which employed around 45% of its population of working age in 1994, significantly more than the average figure for the Union. In Austria, however, the proportion in services is much the same, though in Germany, it is significantly lower.

In Germany, the relatively low share of overall value-added in the economy generated by services, which is the counterpart of the relatively high share produced by manufacturing, is combined with a significantly higher level of productivity than in manufacturing, or indeed in other Member States. As a result, a much smaller proportion of the population are employed in services in Germany than in most other parts of the Union (under 40% of working-age population in 1994, whereas in Austria, for example, the share of value-added produced

by services was lower but much higher relative numbers were employed in services), though it compensates for this to some extent by having a very low level of productivity in agriculture which consequently provides more jobs in relation to the size of its population than in either the UK or Belgium where agricultural value-added accounts for a higher proportion of GDP. The position is similar in Italy, where productivity in services is even higher than in Germany and where, accordingly, comparatively few people as compared with elsewhere are employed in the sector (under a third of working-age population).

By contrast, in 4 of the 5 Member States where services provided jobs for 45% or more of working-age population, the level of productivity was much lower in 1994 than in manufacturing, the only countries in the Union, apart from Finland where this was the case. The only exception to this is Denmark where productivity in both services and manufacturing was much lower than the Union average. In all the countries where productivity was relatively low in services, moreover, with the exception of Austria, the effect of this on jobs was reinforced by a average working hours also being less than elsewhere, especially in the Netherlands, but also in Sweden and Denmark. All of the countries with a high level of employment in services — and a low level of productivity — were countries with high overall employment rates.

Employment, productivity and labour costs

Average labour costs per hour worked in the various countries tend to vary broadly in line with productivity. Overall, both the US and Japan, however, have a higher average cost of labour in relation to productivity (unit labour costs) than Europe as a whole (Table 3). This, however, is not true of manufacturing, where the US figure at least (no data are available for Japan) was significantly lower in relation to productivity in 1994 than the average for Europe, while in services, there was only a small difference.

Within Europe, there is some variation in unit labour costs between Member States, with in general those countries with relatively low levels of income per head tending to have comparatively high average labour costs in relation to productivity for the economy as a whole, though the relationship is by no means uniform, with Belgium having among the highest levels of unit labour costs in the Union and Finland one of the lowest levels.

There is less of a systematic relationship, however, between unit labour costs and employment rates. Both Sweden and the UK, for example, countries with relatively high employment rates have above average unit labour costs, while France and Finland, countries with below average employment rates, have relatively low unit costs. This lack of any inverse relationship is even more pronounced at the sectoral level. Indeed, in services, the countries with high levels of employment — Denmark as well as Sweden and the UK — tend to have high rather than low labour costs in relation to productivity.

Nor does it seem that earnings are generally more dispersed in the countries with high employment rates, in the sense that there is more possibility of fixing wage rates for less skilled workers which are more closely in line with their productivity — or contribution to value-added (which is often regarded as a major reason for the high employment rate in the US). Though in both Austria and the UK, there is evidence that earnings are more dispersed at the bottom end of the scale than in most other European countries, this also seems to be the case in a number of other countries where employment rates are low, specifically Ireland and Spain (see OECD, *Employment Outlook*, 1996, Chap 3, Table 3.1 and European Commission, *Report on equitable wages in the Union*, Statistical annex, though it should be emphasised that there is some difficulty in many countries in estimating the distribution of earnings and it is questionable how comparable the OECD data are between countries). Moreover, in a number of countries with high employment rates, earnings seem to be less dispersed than average, Denmark and Sweden, especially, though also Portugal in the case of low wage earners.

This, of course, does not mean that low wages do not play a part in determining the rate of employment in particular countries, but that they do not have a dominant effect. We, therefore, need to look further than low wages or the dispersion of earnings for an explanation of differences in levels of employment between countries.

Employment patterns in high employment rate countries

The fact that some countries in the Union have a much higher proportion of their population of working-age in work leads on to the question of where these additional people are employed. To address this issue, employment by (NACE 1-digit) sector, in terms of both numbers of people and full-time equivalents (ie weighting each person by the number of hours they work relative to

full-time hours in the country concerned), can be related to the population aged 15 to 64. This is essentially approaching the employment question from the supply side, starting from the potential labour force which exists in the various countries and examining both the extent to which it is used and its deployment between different activities.

As noted above, there is a clear tendency for countries with comparatively high levels of employment relative to their population of working age to have a high level of employment in services. Of the Member States of the Union with employment rates of around two-thirds or more (and well above the Union average of 60%), only in Portugal was the number employed in services significantly less than 45% of working-age population. Nevertheless, in most such countries, the proportion employed in manufacturing also tends to be relatively high. Moreover, within services, there is some variation in the relative importance of the activities in which people are employed.

Thus in 1995, focusing first on employment adjusted to a full-time equivalent (FTE) basis to take account of the differential importance of part-time working between Member States (which in a number of cases, particularly the Netherlands and the UK gives a somewhat different perspective on the comparative success of countries in achieving high levels of employment), all of the countries with rates of employment, measured in FTE terms, of 60% or more had above average proportions of working-age population in manufacturing (see Box and Table 4 — which is based on Community LFS figures throughout; 1995 has been chosen instead of 1994 in order to include comparable data for the three new Member States). Equally, all of the countries with FTE employment rates of significantly less than 60% had below average levels of employment in this sector. (It should be noted in this regard that while Japan conforms to this pattern, the US does not, with a much lower level of employment in manufacturing than Europe.)

Although it makes comparatively little difference in the case of manufacturing if the employment rates are measured in terms of numbers rather than full-time equivalents, it is worth noting that Denmark which has a lower level of employment in manufacturing on a FTE basis than Portugal succeeds, through more part-time working, in having more people employed in this sector relative to working-age population.

Within services, the most striking feature of the two countries with the highest levels of employment in the

sector — and the largest numbers employed overall relative to working-age population — Denmark and Sweden, is the high employment in health and social work. In 1995, FTE employment in this sector amounted in the former to 11% of working-age population and in the latter to 12%, in both cases over twice the average proportion for the Union as a whole and, leaving aside Finland where the figure was also relatively large, around twice as high as in any other Member State. Indeed, the large numbers employed in this sector in the two countries is a major part of the reason for their above average rates of employment. This sector apart, the two countries also have a high proportion of their working-age populations working in two other largely public sector activities, education and transport, though both also have an above average proportion employed in business services. In each case, moreover, the high FTE rates were reinforced by significant numbers working less than full-time hours so increasing the relative numbers with jobs in these sectors. (It should be noted that the relative importance of sectors of activity as sources of jobs for people of working age is not so different in Denmark and Sweden from that in the US, where a similar proportion is employed in health, education and other communal services.)

Apart from these sectors, the relative numbers employed in service activities are not much different than in other Member States. In Austria, this is true of most service activities, the only sectors in which employment was significantly above average being distribution, hotels and restaurants and transport. The main sources of additional jobs in this case are not services but agriculture, manufacturing and construction which between them provide employment for over 6% more people of working-age than in the Union as a whole.

This is even more the case in Portugal, where agriculture in particular is a much larger area of employment than in most other Member States, though manufacturing and construction also provide above average levels of employment, as does services, where the importance of more basic activities such as distribution, hotels and restaurants and private households (domestic cleaning) compensate for the relatively low employment in health and social work and business services. In services, however, the high level of employment in FTE terms is translated into significantly fewer jobs than elsewhere in the Union because of the relatively low proportion of part-time jobs.

In the UK, the other country with a high employment rate as defined above, the additional employment is

spread more widely across service activities. In 1995, only in public administration and private households (a very small sector) was there a lower proportion of working-age population employed than in the Union as a whole. Moreover, through substantial numbers working part-time, especially women, employment is translated into considerably more jobs than in other Member States, with the exception of the Netherlands. While in FTE terms, therefore, employment in services in the UK was much the same relative to working-age population in 1995 as in Austria (both 40%), services provided jobs for a much higher proportion of people in this age group (49%) than in the latter (43%).

The general conclusions which emerge from the analysis are, first, that there are some differences between countries with high employment rates in the sectors in which people are employed, implying that it is difficult to identify in advance which activities should be expanded in order to provide more jobs, except in a very general sense that these will probably be in services rather than industry, though it needs to be borne in mind that all countries with high employment rates in the Union have relatively large manufacturing sectors. Though health and social work is important in the Nordic countries, it is much less so elsewhere. In some degree, it is evident that the activities which support relatively high levels of employment as compared with other countries reflect comparative advantages — high levels of tourism in Austria and Portugal, for example, leading to comparatively large hotels and restaurants and retailing sectors, and the large numbers employed in the UK in financial and business services reflecting its comparative specialisation in these areas.

A second point to emerge is that there are significant differences between countries in the jobs generated by a given level of employment. Some like the UK and Sweden — as well as, of course, the Netherlands — succeed in employing a much higher proportion of their people of working age from a given level of employment in services than others — like Portugal or Austria.

A final point to make is that, in general, the sectors of activity which are relatively large providers of jobs in countries with high employment rates do not seem to be predominantly ones characterised by low wages and low skills, which is borne out by the relatively large numbers of people with high levels of educational attainment employed in them.

Table 1: GDP and employment by sector, 1994

		GR	P	E	IRL	FIN	S	UK	NL	I	F	D	A	B	DK	WG	US	JA	E15	E15*	E12
Total economy																					
GDP/POP	(PPS)	10.80	11.20	12.67	14.66	15.20	16.32	16.41	17.45	17.66	17.92	18.33	18.83	18.93	19.05	20.24	23.77	19.73	16.74	17.03	17.43
GDP/HRS	(PPS)	14.94	13.11	21.88	23.12	23.53	21.89	22.09	27.16	28.37	27.06	25.61	23.14	30.70	24.59	28.22	29.61	19.44	24.50	24.96	25.77
HRS/EMP	(av pa)	1968	1890	1807	1922	1715	1630	1719	1499	1752	1739	1666	1747	1693	1632	1648	1737	1905	1721	1720	1705
EMP/WAP	(%)	56.6	65.9	48.7	52.9	57.5	73.0	67.7	63.2	51.6	60.2	63.7	70.5	55.1	71.0	64.6	70.1	76.4	60.2	60.2	60.2
WAP/POP	(%)	64.9	68.6	65.8	62.4	65.5	62.7	63.9	67.8	68.9	63.3	67.5	66.1	66.1	66.8	67.4	65.9	69.7	66.0	65.9	65.9
Ratio of E15																					
GDP/POP	(PPS)	0.645	0.669	0.757	0.875	0.908	0.974	0.980	1.042	1.055	1.070	1.095	1.125	1.131	1.138	1.209	1.419	1.179			
GDP/HRS	(PPS)	0.610	0.535	0.893	0.943	0.960	0.893	0.901	1.108	1.158	1.104	1.045	0.944	1.253	1.004	1.151	1.208	0.793			
HRS/EMP	(av pa)	1.144	1.098	1.050	1.117	0.997	0.947	0.999	0.871	1.018	1.010	0.968	1.015	0.984	0.948	0.958	1.009	1.107			
EMP/WAP	(%)	0.941	1.095	0.809	0.879	0.956	1.213	1.125	1.051	0.858	1.000	1.058	1.172	0.916	1.181	1.074	1.165	1.270			
WAP/POP	(%)	0.984	1.039	0.997	0.946	0.992	0.950	0.968	1.027	1.043	0.960	1.022	1.001	1.002	1.012	1.021	0.999	1.057			
Manufacturing																					
VA/GDP	(%)			17.8		24.4	21.4	20.4	17.1	20.5	18.9	25.3	24.4	19.6	19.0	26.7	17.5	23.5			21.4
VA/HRS	(PPS)			19.75		25.85	21.68	22.59	27.44	27.12	25.78	24.12	24.43	29.94	20.79	25.85	29.72				24.83
HRS/EMP	(av pa)	1946	1921	1807	1894	1765	1733	1908	1639	1800	1802	1674	1733	1751	1677	1661	1988				1705
EMP/WAP	(%)	8.6	15.1	9.7	10.5	11.2	13.6	11.1	9.1	10.6	11	16.4	15.8	10.2	13.7	17.9	10.7	17.7			12.3
Ratio of E15																					
VA/GDP	(%)			0.832		1.144	1.004	0.958	0.801	0.961	0.883	1.185	1.141	0.918	0.888	1.250	0.819	1.099			
VA/HRS	(PPS)			0.795		1.041	0.873	0.910	1.105	1.092	1.038	0.972	0.984	1.206	0.837	1.041	1.207				
HRS/EMP	(av pa)	1.142	1.127	1.060	1.111	1.035	1.017	1.119	0.962	1.056	1.057	0.982	1.017	1.027	0.984	0.974	1.166				
EMP/WAP	(%)	0.697	1.220	0.785	0.848	0.910	1.104	0.904	0.738	0.862	0.895	1.327	1.284	0.828	1.112	1.452	0.871	1.435			
Services																					
VA/GDP	(%)			65.4		62.0	67.8	68.2	69.7	65.4	69.7	64.0	62.2	69.1	69.3	64.1	73.1	61.3			66.6
VA/HRS	(PPS)			23.98		21.26	20.11	20.17	24.97	29.77	27.07	26.38	22.64	29.26	22.75	29.15	29.78				25.62
HRS/EMP	(av pa)	1941	1836	1763	1764	1657	1580	1624	1435	1712	1684	1631	1697	1648	1578	1608	1693				1647
EMP/WAP	(%)	31.8	36.5	30.1	33.3	36.9	50.9	48.9	46.6	32.5	41.6	38.9	44.5	39.1	48.7	39.4	53.0	44.5			39.9
Ratio of E15																					
VA/GDP	(%)			0.981		0.930	1.018	1.024	1.046	0.981	1.047	0.961	0.933	1.037	1.039	0.962	1.096	0.919			
VA/HRS	(PPS)			0.936		0.830	0.785	0.787	0.975	1.162	1.057	1.030	0.884	1.142	0.888	1.138	1.163				
HRS/EMP	(av pa)	1.178	1.115	1.070	1.071	1.006	0.959	0.986	0.871	1.039	1.023	0.990	1.030	1.000	0.958	0.977	1.028				
EMP/WAP	(%)	0.796	0.913	0.753	0.834	0.924	1.275	1.225	1.167	0.813	1.041	0.974	1.115	0.980	1.219	0.986	1.328	1.114			

Note: E12 excludes GR, IRL and P for which the sectoral data are incomplete; E15* excludes the new German Länder

Table 2: GDP and employment by sector, 1985

		GR	P	E	IRL	FIN	S	UK	NL	I	F	D	A	B	DK	WG	US	JA	E15	E15*	E12
Total economy																					
GDP/POP	(PPS)	6.56	5.57	7.34	6.91	10.68	11.94	10.47	10.83	10.81	11.65		11.23	10.92	11.89	12.37	15.4	11.15		10.52	10.84
GDP/HRS	(PPS)	9.01	6.49	13.65	11.41	12.64	13.77	13.94	18.08	17.11	16.71		13.58	16.88	14.45	16.19	20.05	10.52		15.04	15.60
HRS/EMP	(av pa)	1998	1996	1853	1995	1778	1675	1732	1544	1765	1784		1843	1792	1661	1760	1769	2095		1773	1757
EMP/WAP	(%)	57.8	65.8	46.2	51.7	71.4	81.6	67.0	57.7	53.1	62.0		67.3	53.9	75.4	63.1	65.2	74.2		60.2	60.2
WAP/POP	(%)	63.0	65.3	62.7	58.7	66.6	63.4	64.8	67.2	67.3	63.0		66.7	67.1	65.7	68.8	66.6	68.2		65.5	65.7
Ratio of E15																					
GDP/POP	(PPS)	0.624	0.529	0.697	0.656	1.016	1.135	0.995	1.029	1.028	1.108		1.068	1.038	1.13	1.176	1.464	1.059			
GDP/HRS	(PPS)	0.599	0.432	0.907	0.759	0.840	0.916	0.927	1.202	1.138	1.111		0.903	1.122	0.961	1.076	1.333	0.700			
HRS/EMP	(av pa)	1.127	1.126	1.046	1.126	1.003	0.945	0.977	0.871	0.996	1.007		1.040	1.011	0.937	0.993	0.998	1.182			
EMP/WAP	(%)	0.960	1.093	0.768	0.858	1.185	1.355	1.112	0.958	0.883	1.030		1.117	0.895	1.252	1.047	1.083	1.232			
WAP/POP	(%)	0.962	0.996	0.957	0.896	1.017	0.968	0.988	1.026	1.028	0.961		1.018	1.023	1.002	1.050	1.016	1.040			
Manufacturing																					
VA/GDP	(%)			23.8		25.1	23.7	23.7	18.0	24.6	21.6		28.3	22.6	19.6	32.6	19.7	28.4			25.2
VA/HRS	(PPS)			15.76		12.72	12.69	12.92	17.40	18.36	15.41		14.04	17.39	11.48	16.45	20.08	11.45			15.59
HRS/EMP	(av pa)	1922	1953	1800	1888	1779	1750	1862	1606	1780	1790		1773	1764	1727	1724	1918	2351			1774
EMP/WAP	(%)		16.2	10.2	9.9	16.2	18.3	14.3	9.8	11.9	13.8		18.2	11.5	15.6	20.1	12.0	18.0			14.4
Ratio of E15																					
VA/GDP	(%)			0.942		0.994	0.938	0.938	0.712	0.975	0.856		1.121	0.897	0.775	1.293	0.781	1.124			
VA/HRS	(PPS)			1.011		0.816	0.814	0.829	1.116	1.178	0.989		0.901	1.115	0.736	1.056	1.288	0.734			
HRS/EMP	(av pa)	1.084	1.101	1.015	1.065	1.003	0.987	1.049	0.905	1.003	1.009		0.999	0.994	0.974	0.972	1.081	1.325			
EMP/WAP	(%)		1.120	0.706	0.684	1.121	1.267	0.991	0.682	0.826	0.957		1.262	0.798	1.082	1.394	0.834	1.245			
Services																					
VA/GDP	(%)			58.5		55.9	62.9	58.9	59.4	59.8	63.9		57.7	64.8	66.7	56.5	67.3	57.6			59.9
VA/HRS	(PPS)			15.95		11.93	11.83	11.95	16.22	17.72	17.01		13.67	15.71	13.58	16.56	19.43	11.16			15.40
HRS/EMP	(av pa)	1930	1866	1814	1846	1704	1683	1629	1469	1731	1721		1783	1753	1584	1729	1751	2145			1697
EMP/WAP	(%)		27.6	24.6		40.1	54.2	43.9	40.2	30.8	38.5		37.9	36.7	49.0	34.5	46.5	40.9			36.2
Ratio of E15																					
VA/GDP	(%)			0.975		0.933	1.050	0.982	0.991	0.997	1.066		0.963	1.081	1.113	0.943	1.123	0.961			
VA/HRS	(PPS)			1.036		0.775	0.768	0.776	1.053	1.151	1.105		0.888	1.020	0.882	1.075	1.262	0.725			
HRS/EMP	(av pa)	1.138	1.100	1.069	1.088	1.005	0.992	0.960	0.866	1.020	1.014		1.051	1.033	0.933	1.019	1.032	1.264			
EMP/WAP	(%)		0.760	0.678		1.106	1.495	1.212	1.108	0.851	1.062		1.045	1.013	1.352	0.952	1.283	1.129			

Note: E12 excludes GR, IRL and P for which the sectoral data are incomplete, as well as the new German Länder for which no data exist.

Table 3: Labour costs

1994

Total economy	GR	P	E	IRL	FIN	S	UK	NL	I	F	D	A	B	DK	WG	US	JA	E15	E15*	E12
Lab cost per hour	9.92	9.27	14.44	15.51	14.46	14.52	14.29	16.79	18.33	16.53	16.16	14.09	21.12	14.92	17.28	19.64	13.07	15.68	15.89	16.22
Unit lab cost (%)	66.4	70.7	66.0	67.1	61.5	66.4	64.7	61.8	64.6	61.1	63.1	60.9	68.8	60.7	61.3	66.3	67.2	64.0	63.7	63.0
Ratio of E15																				
Lab cost per hour	0.611	0.571	0.890	0.956	0.891	0.895	0.881	1.035	1.130	1.019	0.996	0.869	1.302	0.920	1.065	1.211	0.806			
Unit lab cost	1.055	1.123	1.048	1.066	0.976	1.054	1.028	0.982	1.026	0.971	1.002	0.967	1.093	0.964	0.973	1.054	1.068			
Manufacturing	GR	P	E	IRL	FIN	S	UK	NL	I	F	D	A	B	DK	WG	US	JA	E15	E15*	E11
Lab cost per hour	9.33	7.36	14.14		14.47	14.80	17.10	18.24	18.06	16.99	17.76		21.09	13.74	19.35	20.07				17.60
Unit labour cost (%)			71.6		56.0	68.3	75.7	66.5	66.6	65.9	73.6		70.4	66.1	74.9	67.0				70.9
Ratio of E15																				
Lab cost per hour	0.530	0.418	0.804		0.822	0.841	0.972	1.037	1.026	0.965	1.009		1.198	0.781	1.100	1.140				
Unit lab cost			1.010		0.790	0.963	1.068	0.938	0.939	0.930	1.039		0.994	0.933	1.056	0.945				
Services	GR	P	E	IRL	FIN	S	UK	NL	I	F	D	A	B	DK	WG	US	JA	E15	E15*	E11
Lab cost per hour			14.64		14.58	14.25	13.87	16.55	19.52	16.45	15.45		21.52	15.43	16.45	18.88				16.10
Unit lab cost (%)			61.0		68.6	70.9	68.8	66.3	65.6	60.8	58.6		73.6	67.8	56.4	63.4				62.9
Ratio of E15																				
Lab cost per hour			0.909		0.906	0.885	0.861	1.028	1.212	1.021	0.959		1.336	0.958	1.021	1.173				
Unit lab cost			0.971		1.091	1.128	1.094	1.055	1.043	0.967	0.932		1.170	1.079	0.898	1.009				

1985

Total economy	GR	P	E	IRL	FIN	S	UK	NL	I	F	D	A	B	DK	WG	US	JA	E15	E15*	E12
Lab cost per hour	6.97	4.55	9.49	8.22	8.53	9.14	8.96	11.33	12.06	11.30		8.70	12.46	9.31	10.62	13.14	7.33		10.15	10.40
Unit lab cost (%)	77.4	70.1	69.5	72.0	67.5	66.4	64.2	62.7	70.5	67.7		64.1	73.9	64.4	65.6	65.5	69.6		67.5	66.7
Ratio of E15																				
Lab cost per hour	0.671	0.437	0.912	0.790	0.820	0.879	0.861	1.089	1.159	1.087		0.837	1.198	0.895	1.021	1.263	0.705			
Unit lab cost	1.161	1.051	1.043	1.080	1.012	0.995	0.964	0.940	1.057	1.015		0.962	1.108	0.966	0.985	0.983	1.045			
Manufacturing	GR	P	E	IRL	FIN	S	UK	NL	I	F	D	A	B	DK	WG	US	JA	E15	E15*	E11
Lab cost per hour	5.91	3.84	9.43		8.12	9.32	10.15	12.20	12.21	11.56			12.85	8.47	11.59	14.37				11.07
Unit lab cost (%)			59.8		63.8	73.4	78.6	70.1	66.5	75.0			73.9	73.8	70.4	71.6				71.0
Ratio of E15																				
Lab cost per hour	0.534	0.347	0.851		0.733	0.841	0.917	1.102	1.103	1.044			1.161	0.765	1.046	1.298				
Unit lab cost			0.842		0.899	1.034	1.106	0.987	0.936	1.056			1.041	1.039	0.991	1.007				
Services	GR	P	E	IRL	FIN	S	UK	NL	I	F	D	A	B	DK	WG	US	JA	E15	E15*	E11
Lab cost per hour			9.92		8.70	8.62	8.92	11.32	12.77	11.28			12.42	9.73	10.14	12.07				10.44
Unit lab cost (%)			62.2		72.9	72.9	74.6	69.8	72.0	66.3			79.1	71.6	61.3	62.1				67.8
Ratio of E15																				
Lab cost per hour			0.950		0.834	0.826	0.854	1.084	1.223	1.081			1.190	0.931	0.972	1.156				
Unit lab cost			0.917		1.076	1.075	1.101	1.030	1.062	0.978			1.167	1.056	0.904	0.916				

Note: E15* excludes the new German Länder; E12 excludes GR, IRL and P as well as the new German Länder; E11 excludes these three countries plus A for which no data on employees' compensation by sector are available.

Table 4: Employment relative to working-age population, 1995

NACE	Numbers employed, % population aged 15-64														
	E	NL	I	IRL	B	GR	F	D	FIN	UK	P	S	A	DK	E15
Agriculture	4.3	2.3	3.8	6.6	1.5	11.5	3.0	2.0	4.8	1.4	7.5	2.4	5.2	3.3	3.2
Mining, energy, water	0.6	0.6	0.7	0.8	0.7	0.8	0.7	1.1	0.9	0.9	0.8	0.6	0.9	0.6	0.8
Manufacturing	9.0	9.9	11.7	10.4	11.4	8.5	11.4	15.9	12.6	13.2	14.9	13.8	15.6	15.1	12.7
Construction	4.4	3.7	4.0	4.2	3.9	3.7	4.2	5.9	3.5	5.0	5.4	4.2	6.2	4.7	4.7
Distributive trades	7.7	10.0	8.6	7.7	8.6	9.2	8.2	9.2	7.0	11.0	9.7	8.9	11.1	10.7	9.1
Hotels + restaurants	3.0	2.1	2.2	3.0	1.9	3.3	2.0	1.9	1.5	3.1	3.0	1.8	3.6	1.9	2.4
Transport + communications	2.8	3.6	2.7	2.5	4.2	3.7	3.8	3.7	4.5	4.5	2.9	4.8	4.7	5.5	3.6
Banking + insurance	1.2	2.0	1.7	2.1	2.3	1.4	2.0	2.4	1.5	3.1	1.9	1.5	2.6	2.2	2.1
Business services	2.5	6.1	2.4	3.5	3.4	2.2	5.1	3.9	4.9	6.5	2.9	6.7	3.8	5.4	4.2
Public administration	3.0	4.8	4.0	3.1	5.7	4.0	5.7	5.6	3.7	4.2	4.8	3.7	4.6	4.6	4.6
Education	2.6	4.0	3.9	3.8	4.9	3.2	4.6	3.2	4.5	5.2	4.7	5.3	4.1	5.4	4.0
Health + social work	2.3	8.3	2.9	4.5	5.7	2.4	6.1	5.5	8.9	7.4	2.9	14.7	5.2	12.6	5.4
Other social + personal services	1.7	2.4	2.0	3.2	2.1	1.9	2.4	3.1	3.0	3.7	3.0	3.7	2.9	3.4	2.7
Private households	1.3	0.1	0.5		0.1	0.5	1.2	0.2	0.1	0.4	1.2		0.3	0.2	0.6
Extra-territorial organisations			2.3		0.2		0.1	0.1	0.1	0.1			0.1		0.2
Services	28.1	45.7	30.9	33.3	39.1	31.8	41.3	38.7	39.8	49.1	36.8	51.2	42.9	51.7	38.9
Total	46.4	64	51.2	55.5	56.6	56.4	60.6	63.6	61.7	70	65.4	72.1	70.8	75.6	60.4
NACE	Full-time equivalent numbers employed, % population aged 15-64														
	E	NL	I	IRL	B	GR	F	D	FIN	UK	P	S	A	DK	E15
Agriculture	4.1	1.8	3.7	6.3	1.4	11	2.7	1.8	4.3	1.2	6.8	2.0	4.7	2.9	2.9
Mining, energy, water	0.6	0.5	0.7	0.8	0.7	0.8	0.7	1.1	0.9	0.9	0.8	0.6	0.9	0.6	0.8
Manufacturing	8.9	8.9	11.5	10.2	11.2	8.4	11.2	15.2	12.4	12.6	14.6	13.1	15.2	14.1	12.2
Construction	4.4	3.5	4.0	4.1	3.8	3.7	4.1	5.8	3.4	4.7	5.3	4.0	6.1	4.7	4.6
Distributive trades	7.4	7.8	8.3	7.0	7.8	9.1	7.7	8.1	6.5	8.4	9.5	7.6	10.2	8.9	8.1
Hotels + restaurants	2.8	1.2	2.1	2.6	1.6	3.2	1.8	1.6	1.4	2.1	3.0	1.4	3.3	1.3	2.0
Transport + communications	2.7	3.1	2.7	2.4	4.1	3.6	3.7	3.5	4.3	4.2	2.8	4.4	4.5	5.1	3.5
Banking + insurance	1.2	1.8	1.7	2.1	2.2	1.3	1.9	2.2	1.4	2.9	1.9	1.4	2.5	2.1	2.0
Business services	2.3	4.9	2.3	3.3	3.1	2.2	4.7	3.4	4.5	5.6	2.8	5.8	3.4	4.7	3.7
Public administration	2.9	4.4	3.9	3	5.4	4.0	5.3	5.2	3.6	3.9	4.8	3.5	4.4	4.4	4.4
Education	2.4	3.1	3.8	3.4	4.5	3.1	4.2	2.7	4.2	4.0	4.6	4.6	3.8	4.7	3.5
Health + social work	2.2	5.7	2.8	4.0	4.8	2.4	5.5	4.7	8.4	5.8	2.8	12.0	4.7	10.8	4.7
Other social + personal services	1.6	1.8	1.9	2.6	1.9	1.8	2.2	2.7	2.7	2.9	2.4	3.0	2.7	2.6	2.3
Private households	0.9		0.4		0.1	0.4	0.7	0.1	0.1	0.2	0.9		0.2	0.1	0.4
Extra-territorial organisations			0.2		0.2		0.1	0.1	0.1	0.1			0.1		0.1
Services	26.5	34	30.0	30.3	35.6	31.2	37.6	34.3	37.3	40.0	35.6	43.7	39.7	44.8	34.6
Total	44.4	48.8	49.9	51.7	52.7	55.1	56.3	58.1	58.4	59.5	63.1	63.3	66.5	67.1	55.2

Note: Full-time equivalent numbers are the numbers employed weighted by the average hours worked in each country in relation to full-time hours worked

Job turnover in the European Union

It is widely emphasised that labour market flexibility is a key aspect of economic competitiveness. At the same time, it is generally acknowledged that the skills and know-how of the work force are an equally important determinant of the ability of businesses to compete effectively in world markets, especially in the knowledge-based activities in which the comparative advantage of advanced economies increasingly resides. There is, however, a potential conflict between the latter and certain aspects of flexibility. In particular, while the rate of labour turnover tends to be regarded as an important indicator of flexibility, insofar as it reflects the ease of movement between jobs, at the same time, skills and know-how often come from experience and spending some time performing a particular task. Indeed, as tasks become more complex, this may become of increasing significance.

The aim here is largely confined to presenting the evidence on job turnover, on the one hand, on the proportion of workers in the different Member States who move from one job to another from one year to the next and, on the other, on the relative number who remain in one job for a long period of time. In addition, the way in which both vary between sectors of activity and between workers with different educational attainment levels — to see whether there is any tendency for those with higher education, and presumably higher skills, to change their job more or less frequently than those with lower education — is also examined.

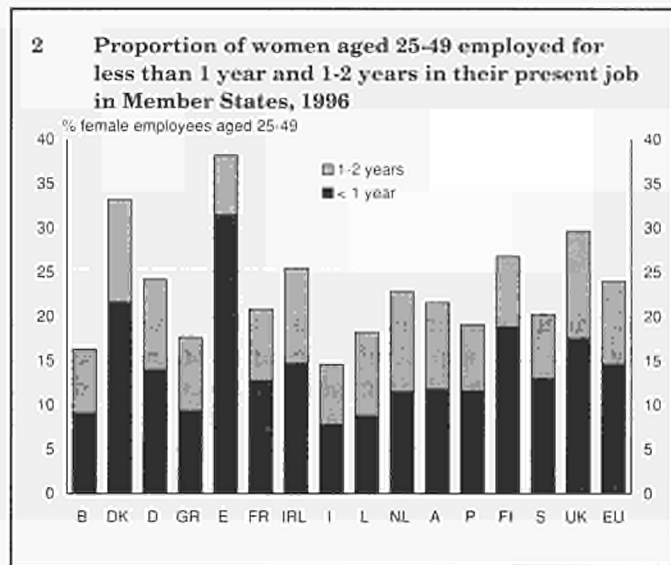
The analysis is intended to complement that published recently on the scale of labour movement between sectors (see 'Sectoral mobility in the European labour market', *Employment in Europe, 1996: Key issues*), which indicated that, on average, around 12% of men and 15% of women in the Union, worked in sectors in which they were not employed the year before. Like that analysis, the present study is based on data from the Community Labour Force Survey, in this case on responses to the question on when respondents started in their present employment.

The scale of job turnover

The rate of job turnover in the Union averaged just over 16% in 1996, much the same as in 1995 and signifying that, on average, around one person in 6 changes their job each year. The rate varied, however, from a third in Spain and 24% in Denmark to only 9% in Italy and just under 10% in Luxembourg. Relating these figures to estimates of sectoral movement (*op cit*, where it should be noted that the data exclude Italy, as well as Austria and Sweden, which tends to increase the turnover figures as compared with those calculated here), suggests that some 4% of workers changed their jobs and remained in the same sector in 1995 and 1996, which is about the same proportion who took up a job in another sector (the remainder were either unemployed or economically inactive before taking up the job). In other words, perhaps unexpectedly, movement between sectors of activity (defined at the NACE 1-digit level — which here means 13 sectors in all) seems to be as common as movement within sectors. It also suggests that the rate of overall job turnover in relation to sectoral shifts is similar as between Member States.

As might be expected, given the greater tendency for them to interrupt their working careers to take care of children or elderly and infirm parents or grandparents, the turnover of women was generally higher than for men (17% as against 15½% in the Union as a whole). In Portugal and Sweden, however, in both of which the rate of participation in the work force is relatively high with fewer women taking time off for caring responsibilities, the reverse was the case. Apart from these two countries, the difference between male and female turnover rates was similar in most Member States, though it was particularly large in Ireland, Luxembourg, the Netherlands and Austria, except for the latter, countries where participation of women was relatively low.

As would also be expected, the rate of turnover is higher among young people than those in older age groups, partly because of the relatively large proportion starting to work for the first time. In 1996, some 43% of both men and women aged 15 to 24 in employment in the

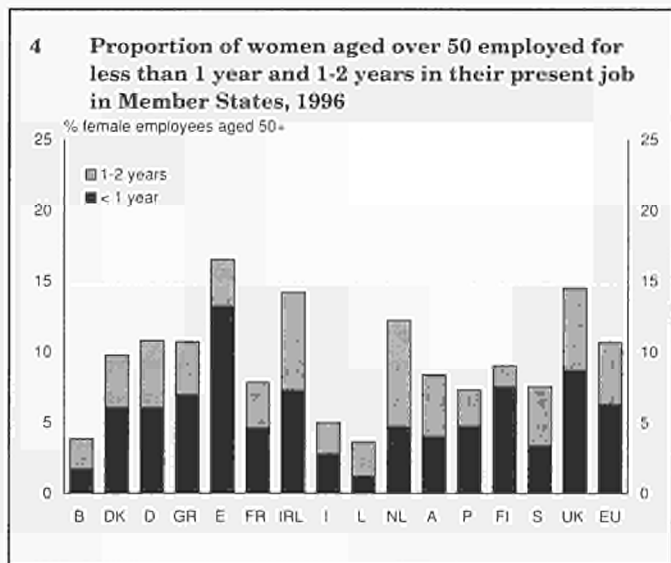
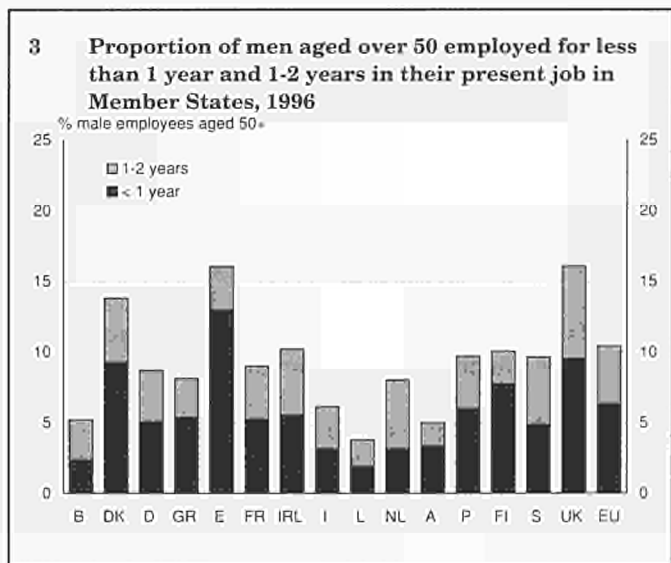


Union had been in their current job for less than a year, the figure rising to over 75% in Spain and around 60% in Finland (for men and almost 70% for women), but falling to just under 30% in Italy and Austria.

By contrast, for those aged 25 to 49, the turnover rate averaged 13% for men and 14½% for women, the rate for men varying from 29% in Spain, 20% in Denmark and 18% in Finland to around 8½% in the Netherlands and Austria and only 7% in Italy and Luxembourg (Graph 1). Rates for women showed a similar pattern, though being slightly higher in most countries — with the exception of Portugal and Sweden, as noted above, but also of Belgium, where the difference between male and female rates does not emerge at the aggregate level

largely because of the low participation of women in the work force in this age group (Graph 2). In other words, the overall rate of turnover for women in Belgium is influenced more by the high rate for 15 to 24 year olds than in the case of men. This is also true in Greece, where the rate for men and women in this age group was much the same in 1996, whereas there was a difference of 15% on the overall rate.

For both men and women of 50 and over, the rate of job turnover in the Union averaged just over 6%, though it was as much as 13% in Spain, where a high rate is common to all age groups and as low as 2% in Belgium and Luxembourg and 3% in Italy (Graphs 3 and 4).



In general, therefore, a systematic difference in the rate of job turnover between men and women is evident only for the 25 to 49 age group. In the younger and older age groups, rates tend to be similar in most countries. Secondly, the pattern of differences in rates between Member States, however, is much the same for each of the age groups, though there are differences. Turnover in Greece, for example, is below average for 25 to 49 year olds but around the average for those of 50 and over, while in Sweden, the opposite is the case.

Thirdly, the overall rate of job turnover is affected by the age structure of the labour force and, in particular, since the age structure of working-age population is relatively similar across the Union, by rates of participation in the younger and older age groups. In Ireland, Portugal and the UK, for example, the overall rate is increased relative to that in other Member States partly because of comparatively high employment rates among the young. In Belgium and Italy, it is depressed because of low employment rates. Accordingly, focusing on differences within broad age groups is less liable to be misleading than comparing overall variations. This is the approach adopted in the remainder of the analysis.

Job duration

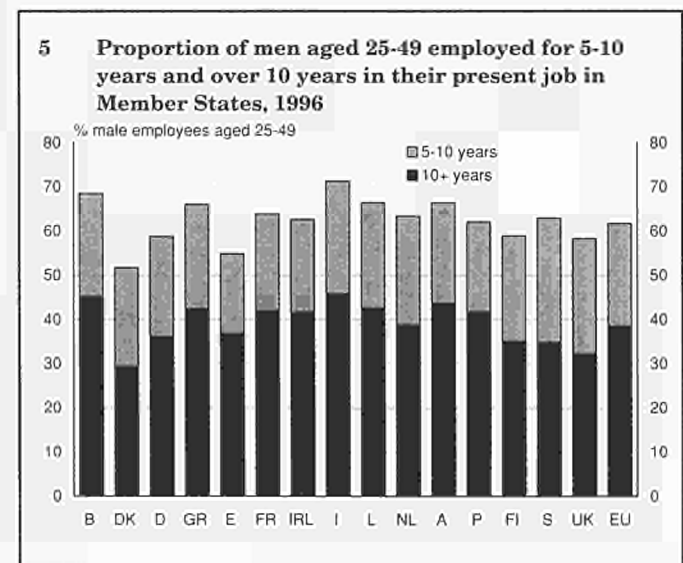
Though annual rates of job turnover are relatively high, once a person has been employed in a particular job for more than a year, there seems to be a good chance that they will stay there for a lengthy period of time. Over the Union as a whole, in 1996, almost 40% of men aged 25 to 49 had been in their current job for over 10 years while another 23% had been there for between 5 and 10 years (Graph 5). Since a proportion of the men in this age group will have still been in education or training less than 10 years previously — some 16% if the average age of leaving education were 19, or 20% if 20 — the former figure, in particular, is impressive.

As might be expected, these figures varied between Member States broadly in line with those on job turnover, in the sense that the proportion of men remaining in their job for over 10 years was generally highest in those countries where the annual rate of turnover was lowest — Italy, Luxembourg, Belgium and Austria (in each of which the proportion was around 43–45%). The two countries, Denmark and the UK, where the relative number of men remaining in the same job for more than 10 years was the smallest

in the Union, also had relatively high annual rates of job turnover. On the other hand, in Spain, the country with by far the highest rate of job turnover, the proportion of men who had been in the same job for over 10 years was only slightly less than the Union average (at 37%, higher than in Germany where job turnover was below average). Similarly, in Finland, the country with the third highest rate of job turnover, the proportion was much the same as in Sweden, where job turnover was only slightly above average, and only just below that in Germany.

This suggests the existence in Spain, and, to a lesser extent in Finland, of a dual labour market, with a significant number of men occupying relatively stable jobs and an equally significant number moving between jobs at frequent intervals. The high proportion of workers in jobs with fixed-term contracts in Spain, in particular, supports this conclusion (32% in Spain, by far the highest figure in the Union, 14% in Finland as against a Union average of 11%).

The relatively high proportion of men aged 50 and over in the same job for over 10 years adds further support. For this age group, unlike the 25 to 49 group, the possibility of some still being in education 10 years earlier is not a complicating factor. In Spain, 71% of men had remained in the same job for over 10 years and in Finland, only marginally less, slightly above the Union average of just under 70% in both cases (Graph 6). At the same time, as noted above, 13% of men of 50 and over in Spain, twice the figure for the Union as a whole, and 8% in Finland, had not been in their present job the year before.



By contrast, in the UK, only around 53% of men of 50 and over had been in the same job for more than 10 years, well below that elsewhere, while in Denmark, it was 65%, still well below the Union average and less than anywhere else in the Union. These low figures were, moreover, combined with a relatively high annual rate of job turnover (just over 9%), even in this age group. Both these economies, therefore, seem to have a more uniform labour market than either Spain or Finland, in the sense that there is less of a difference in experience between people and, consequently, fewer signs of segmentation.

Indeed, the average duration of jobs for men in this age group seems to be less in the UK and Denmark (estimated at 10 years and 11 years, respectively, assuming that the average duration of jobs of over 10 years is 15 years) than in Spain (11½ years) or Finland (12 years), where it was similar to the Union average. (For comparison, the average duration of jobs for men aged 25 to 49, on the same assumption, was lower in Denmark — 7 years — than in Spain — 7½ years — and about the same in the UK, the Union average being just under 8½ years.)

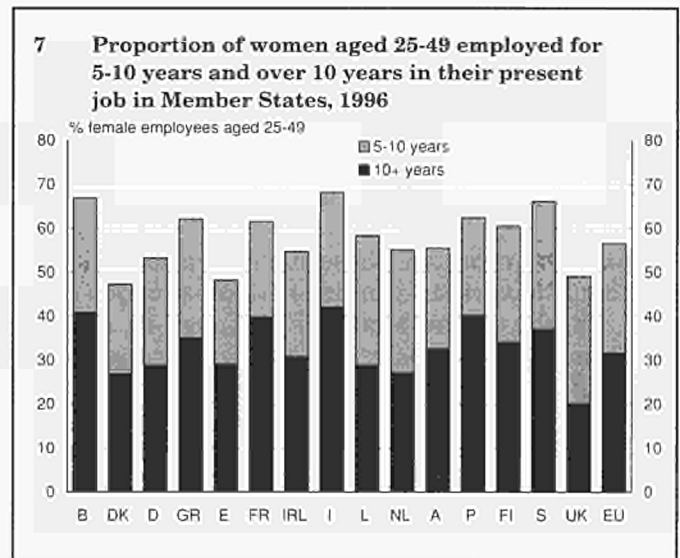
At the other extreme, the proportion of men of 50 and over remaining in the same job for more than 10 years, as for the 25 to 40 age group, was highest in Italy, Luxembourg, Belgium and Austria, at around 80% in each case, implying an average job duration of some 13 years.

For women, while there are some similarities in the pattern of variation in job duration between Member

States with that for men, there are also differences which suggest that the characteristics of the labour market facing women are not always the same as those for men. For women aged 25 to 49, the proportion who had been in the same job for over 10 years averaged just under 32% in the Union in 1996, significantly less than the figure for men (Graph 7 — the proportion who had been in the same job for between 5 and 10 years was similar, at 25%).

In the UK, however, the proportion was only around 20%, much lower than anywhere else in the Union and 12 percentage points less than the figure for men. A similarly large gap between the proportions for men and women is also evident for Ireland, Luxembourg, the Netherlands and Austria, and to a large extent reflects the relatively pronounced tendency in these countries for women to interrupt their working careers to take care of children rather than a higher rate of job mobility among women. By contrast, the gap in the proportion in the three Nordic countries (in Sweden, the proportion for women was higher than for men) as well as in France, Italy and Portugal, was relatively small, in part reflecting the greater availability of child care facilities or, in the case of the last two, the easier access to care within the family.

In consequence, though Belgium and Italy were, as for men, among the countries with the highest proportion in the Union remaining in the same job for over 10 years (41–42%), in Austria, the proportion was only slightly above the Union average and in Luxembourg, it was well below. Moreover, in Finland, where the annual rate of job turnover for women was among the highest in the



Union, the proportion in the same job for over 10 years was also above the average, as was the average duration of jobs (just over 7½ years, slightly above the Union average and some way above the figure for the UK — only just over 6 years).

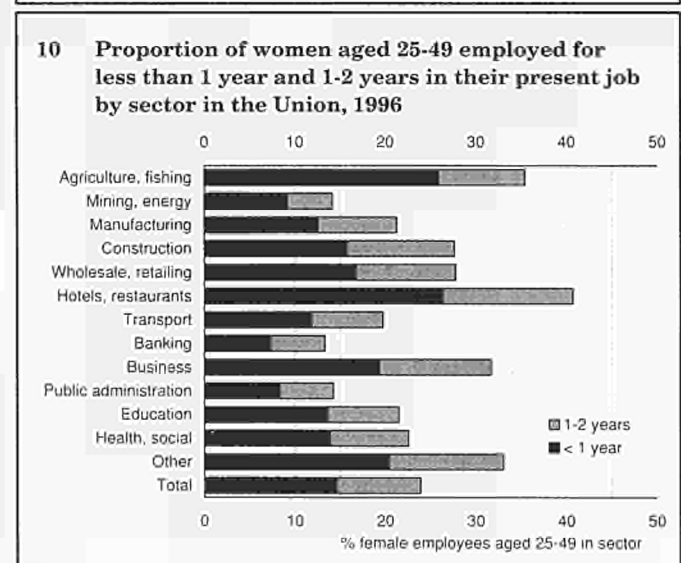
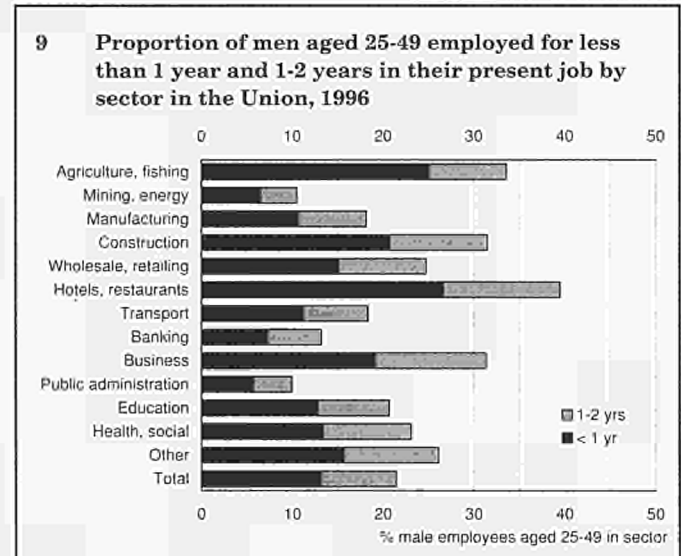
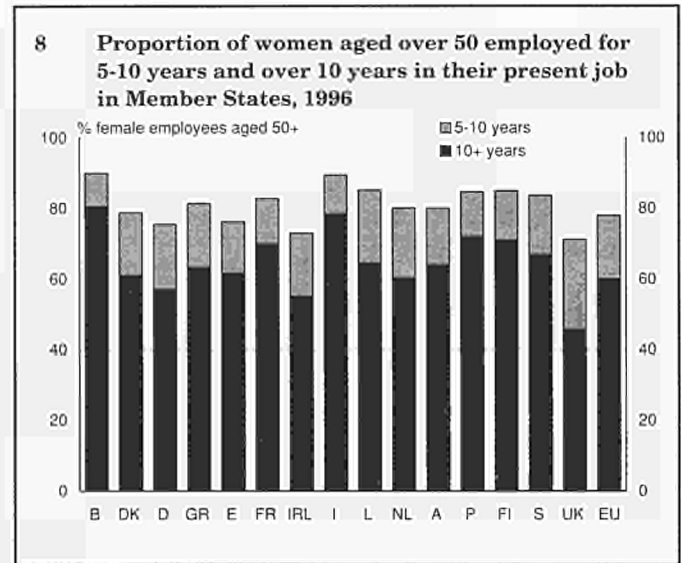
Much the same pattern of experience is evident for women aged 50 and over. The proportion who had been in their present job for over 10 years was again lowest by some way in the UK, where it was just under 46%, though for this age group, the figures in Ireland (55%) and Germany (57%), another country where a high proportion of women interrupt their working careers to take care of children, were also significantly below average (60%) (Graph 8). By contrast, the proportion in Finland was higher than for women than for men and, accordingly, well above the Union average and higher than anywhere else in the Union except for Belgium, Italy and Portugal. It was also above average in Spain, as for men, and in Denmark, in this case, differently from men.

Despite the high rate of annual job turnover in Spain among women aged 50 and over, therefore, the average time spent in the same job was much the same as the Union average (just under 11 years), while in Finland, it was much higher (12 years). Again, the figure was much lower in the UK than in the rest of the Union, at only around 9½ years.

In summary, the figures for job duration show a slightly different pattern of variation across the Union than those for annual rates of job turnover and a somewhat different pattern for women than for men. The average frequency with which people change jobs is as high in Denmark and the UK as in Spain, where job turnover is by some way higher than anywhere else in the Union. Moreover, the frequency of movement between jobs is higher for women in the UK than in the rest of the Union, partly because of the greater tendency for them to interrupt their working careers to take care of children.

Job turnover by sector

The annual rate of job turnover is much higher among employees in hotels and restaurants and agriculture than in other sectors of activity (though it should be emphasised that around half of those working in agriculture are self-employed and turnover among these is relatively low). In 1996, some 26% of both men and women employed in hotels and restaurants in the Union — around one in four — had been working in their



current job for less than a year and only slightly less in the case of agriculture (Graphs 9 and 10). Job turnover was also relatively high in business services, at around 19%, as it was for men in construction (just over 20%). By contrast, it was only around 7% in banking and insurance and about the same in public administration (6% for men, 8% for women), while it was also well below 10% in mining and energy.

To some extent, the sectoral pattern of turnover reflects the rate of job growth in the Union. The number of both men and women employees increased by more in hotels and restaurants and business services between 1995 and 1996 than in any other sector (around 3% in the former, 3½% for men and 5% for women in the latter), while jobs declined in public administration (by ½%), mining and energy (by around 6%) and, at least for men, in banking and insurance (by over 3%). Job growth, however, is only a small part of the explanation. In agriculture, jobs declined markedly for women (by almost 5%), though they increased slightly for men, and they also fell in construction for men. Moreover, the number employed rose well above average in health and social services and education where job turnover was below average.

Other factors underlying rates of job turnover are skill requirements, which make employers reluctant to lose staff who have been trained as well as making it easier for new recruits to do the job, and the pace of technological change and innovation of both processes and products, which, with the growth of demand, determines the rate at which new jobs, in the sense of the tasks involved, are created and old ones destroyed. The

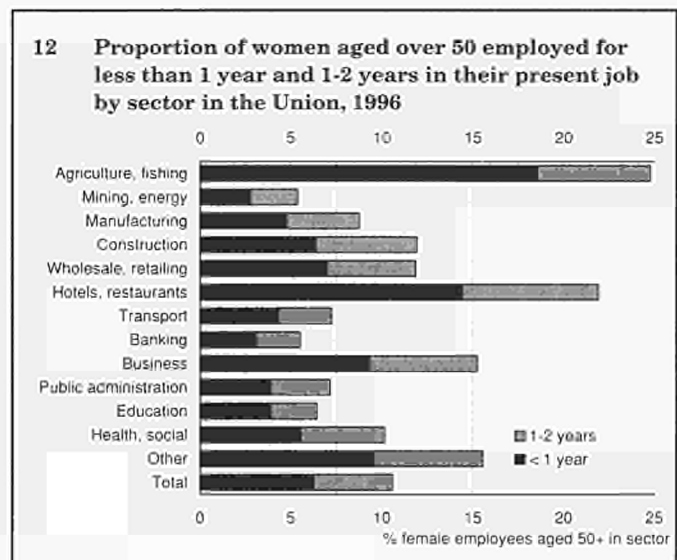
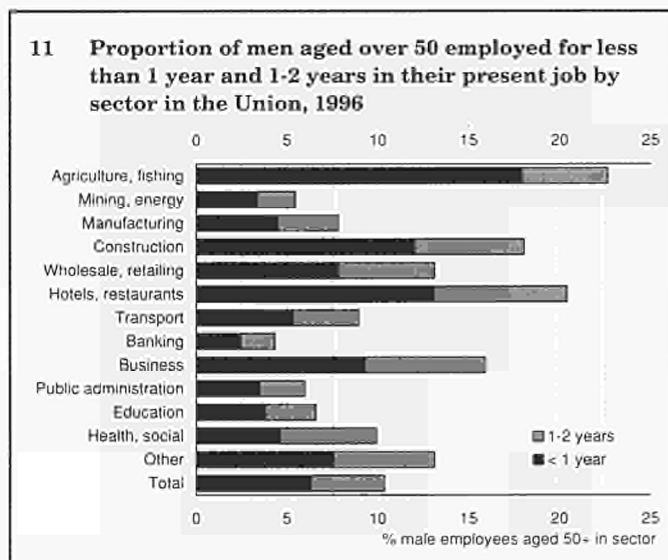
latter may, for example, provide part of the explanation of the high rate of turnover in business services, which include computer software and research and development as well as less innovative activities, such as accounting or real estate.

The pattern of variation in annual rates of turnover between sectors was broadly similar for men and women of 50 and over as for those aged 25 to 49, though the rates in individual sectors were uniformly lower. Nevertheless, some 18% of men and women in employees aged 50 or over in agriculture and 13–14% in hotels and restaurants had been in their current job for less than a year in 1996, as opposed to well under 5% in public administration, banking and insurance, education and mining and energy (Graphs 11 and 12).

Comparing the overall rates of turnover with estimates of movements between sectors suggests that the rate of movement from one job to another within the sector is significantly higher in hotels and restaurants than in business services, where a relatively large proportion of those starting work seem to come from another sector.

Job duration by sector

The variation between sectors in the average length of time people remain in a given job largely mirrors the rate of job turnover. Whereas in hotels and restaurants and business services, only around 20% of male employees and a slightly lower proportion of women had been in the same job for more than 10 years in 1996, in public administration and mining and energy, the



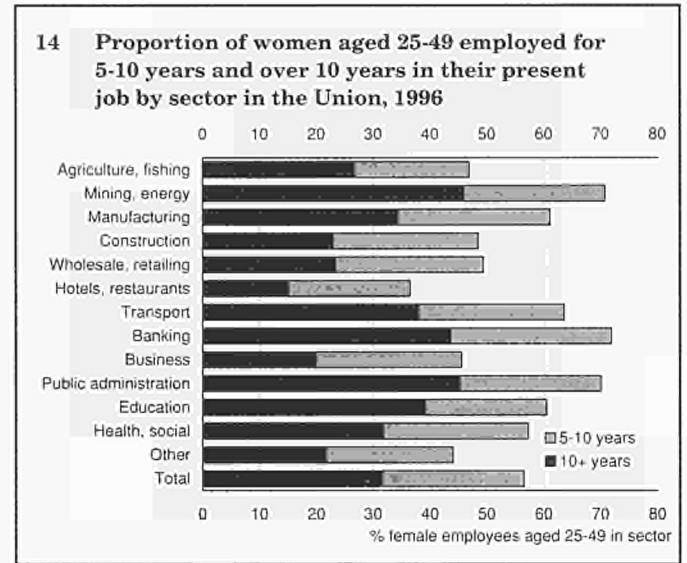
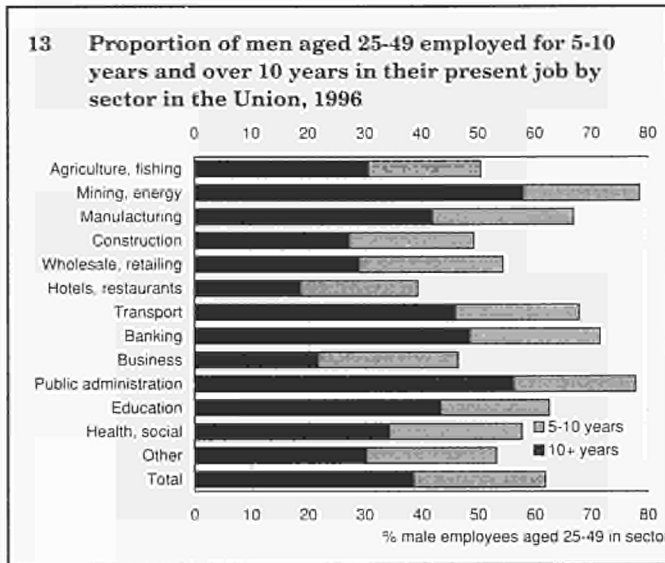


figure for men was over 55% and for women, over 45% (Graphs 13 and 14).

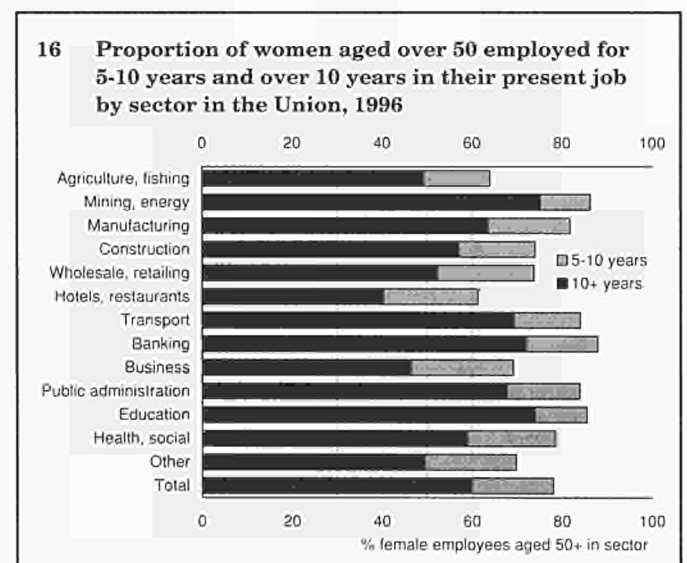
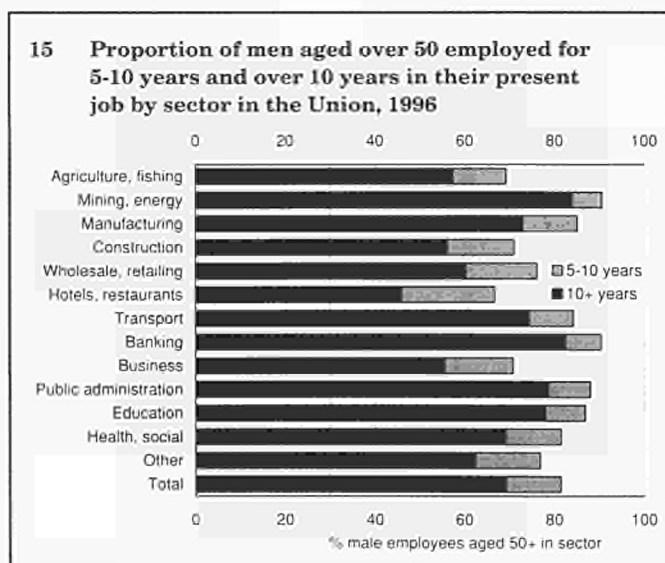
difficulty many have in finding another job if they are made redundant at this age.

For men and women of 50 and over, the proportions in the latter two sectors were even higher, at around 80% in the case of men and around 70% for women (Graphs 15 and 16). For this age group, the relative number who had been in the same job for over 10 years was also similarly high in manufacturing, transport, banking and education. In all of these sectors, therefore, the great majority of those still in employment had been working in their current job for a long time and comparatively few people — and, in particular, few men — have recent experience of working in a different job by the time they are over 50. This helps to explain the

At the same time, even in hotels and restaurants and business services, though the proportion in the same job for over 10 years was lower than in other sectors, it was still over 40% in each case (55% in business services for men).

Job turnover and educational attainment

It is open question whether job turnover rates are likely to be higher among men and women with high



education attainment levels than among those with low levels. On the one hand, it could be argued that rates ought to be higher because employers are likely to be more reluctant to have skilled people leave. On the other, such people ought arguably to be better placed to move between jobs to further their careers and salary.

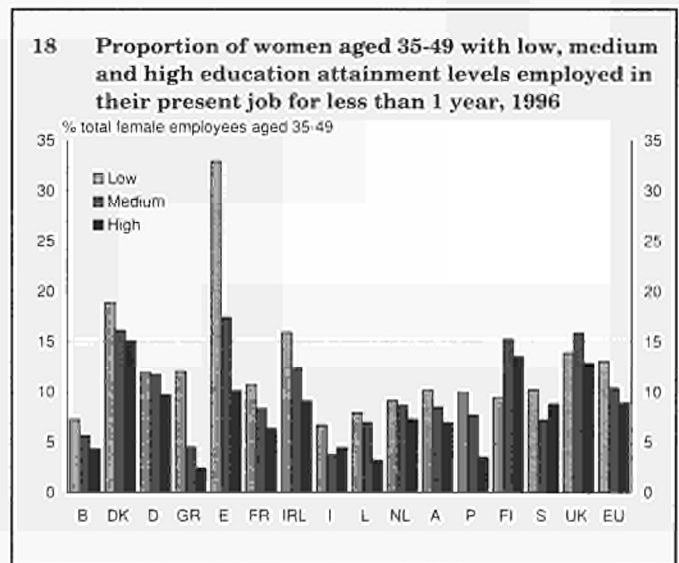
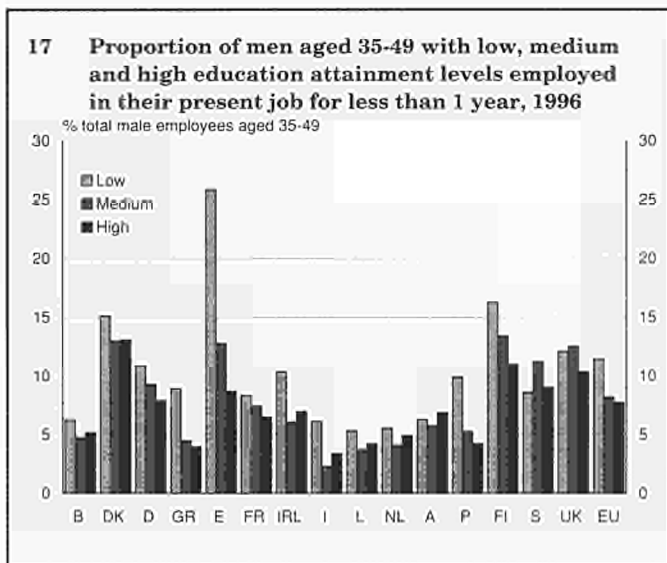
In practice, it is possible that these two conflicting forces cancel each other out, since for those in the 25 to 49 age group, there is no uniform tendency apparent across the Union for more highly educated people to have either higher or lower rates of job turnover than those with lower education. In the Union as a whole, 14% of men in this age group with university or the equivalent level of education had been in their current job for less than a year in 1996, as opposed to 15% of men with only basic education and 11½% of men with upper secondary level education. Moreover, for women in this age group, differences in job turnover rates between those with different levels of education are also small (averaging 16% for those with university degrees or the equivalent and 15% for those with only basic education).

However, part of the explanation for this finding may lie in the possibility that some of those with high levels of educational attainment in the 25 to 49 age group, especially the younger members, may have still been at university or college a year before the survey was conducted and are, therefore, moving from education into their first job rather than between jobs. To allow for this possibility, it is perhaps more instructive to examine differences for those in the 35 to 49 age group, very few

if any of whom are likely to have been in full-time education the previous year.

The higher average age of this group means that job turnover is significantly lower than if the 25 to 34 year olds are included, since this declines markedly with age. It is lower to a greater extent, however, for those with higher levels of education than those with only a basic level. In 1996, job turnover of men aged 35 to 49 with university degrees or the equivalent averaged just over 7½% across the Union and just over 8% for those with upper secondary level education, whereas for those with only basic schooling, it averaged 11½%. This suggests that once more highly educated men find a job, they are more likely to remain in it than the latter group.

Indeed, only in Austria and Sweden, was this general finding not repeated. The difference in rates was particularly wide in the Southern Member States. In Greece, Italy and Portugal, turnover among men with only basic education was around twice the rate of those with university degrees, in Spain, almost three times the rate (Graph 17). Indeed, it would seem that the high overall rate of job turnover in Spain is very much due to high turnover among relatively lowly educated men, which was some 26% for those in the 35 to 49 age group in 1996 as compared with only around 8½% for men with university degrees or the equivalent. This very much reflects the pattern of temporary working in the economy, which, as in Greece and Portugal, is concentrated among men with only basic education (in 1995, 36% of men in this category were employed in jobs with fixed-term contracts as against 20% of men with high education). In Austria, on the other hand, as well as in



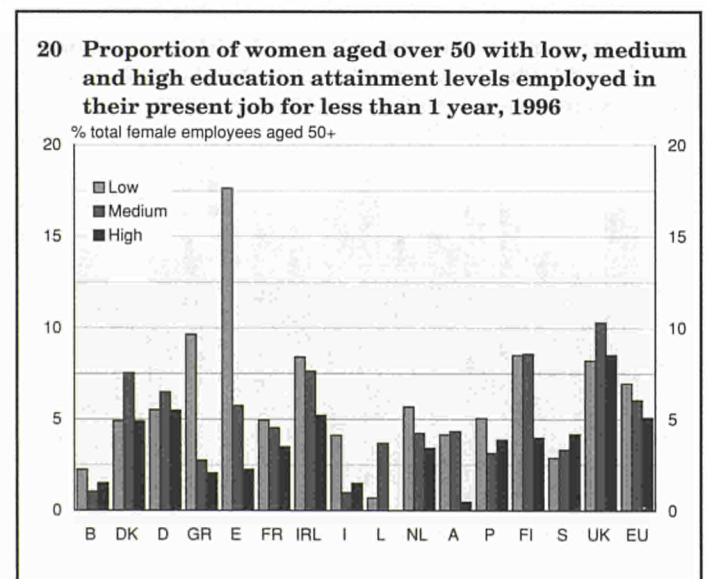
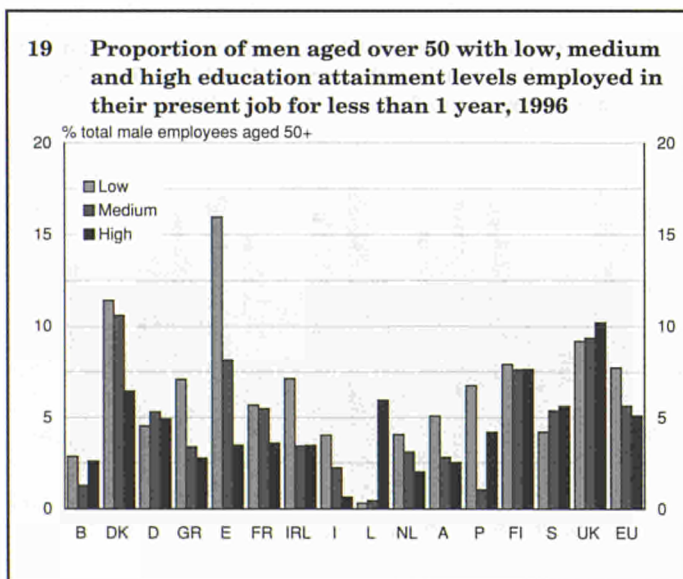
the three Benelux countries, where the difference in rates is very small, temporary working, is concentrated among men with university degrees or equivalent qualifications, while in Sweden, temporary working is also higher, if only slightly so, for this group than for those with only basic schooling.

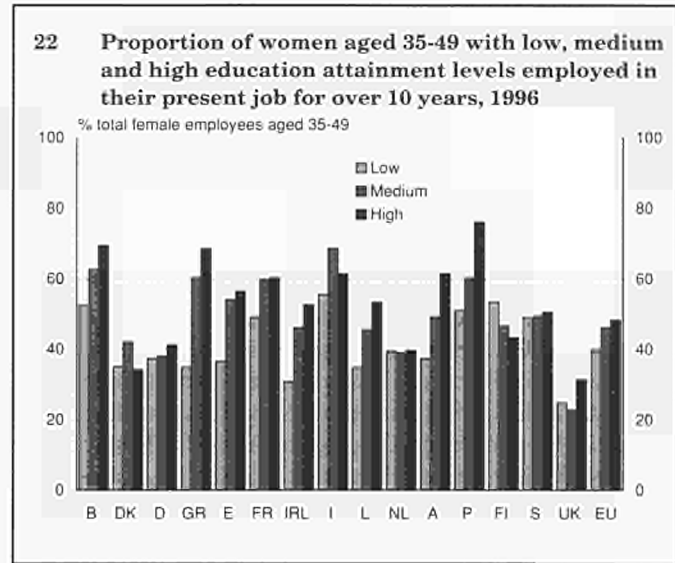
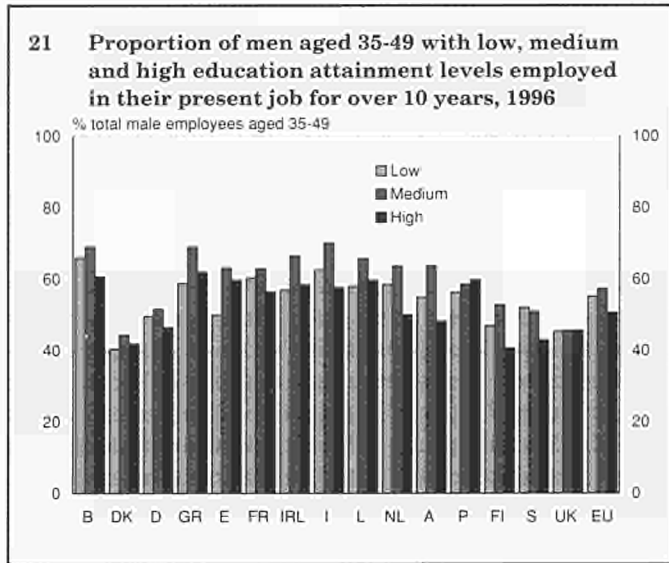
Much the same difference in turnover rates between employees with different education levels is also true of women in this age group. Whereas for women aged 35 to 49 with university degrees or the equivalent, only around 9% in the Union in 1996 had been in their current job for less than a year, for those with upper secondary education, the figure was 10½% and for those with only basic schooling, 13%. In this case, only in Finland did the latter group have a lower rate of job turnover than those with higher education and once again the difference in rates was particularly wide in the Southern European countries (Graph 18). In Spain, the rate for women in this age group with basic education was as high as 33%, considerably more than in any other Member State, while the rate for university graduates was only 10%, only slightly above the Union average and lower than in Denmark, the UK or Finland.

Again, the pattern of variation in rates across the Union reflects the pattern of temporary working, which is most prevalent among lowly educated women in Spain, as well as Greece and Portugal, and among highly educated women in Finland, in the latter, in contrast to a lack of such concentration in the case of men.

For men and women aged 50 and over, a similar overall difference is evident in job turnover rates between the more highly educated and less educated, though it is, if anything less general across the Union. On average, just over 7½% of men in this age group with only basic education had been in their current job for less than a year in 1996 as opposed to only 5% of men with university or the equivalent education (the rate for those with upper secondary education being 5½%). In this case, in 9 of the 15 Member States, the difference in rate between the two groups was in the same direction and greater than 2 percentage points (Graph 19). In only four Member States was the rate of turnover among more highly educated men higher than among less educated and in none of these, apart from Luxembourg, where the number of observations is unreliably small, was the difference more than 2 percentage points.

For women aged 50 and over, the difference in turnover was slightly less marked on average (7% for those with only basic education, 5% for those with university degrees or equivalent), but more systematic between countries. In this case, in only two Member States — Sweden and the UK, as in the case of men — was the turnover rate for women with high education higher than that for those with only basic education and in both countries the difference was 1 percentage point or less (Graph 20). By contrast, in Finland, turnover among lowly educated women was almost 5 percentage points higher than for those with university education, in Greece, just under 8 percentage points and in Spain, over 15 points.



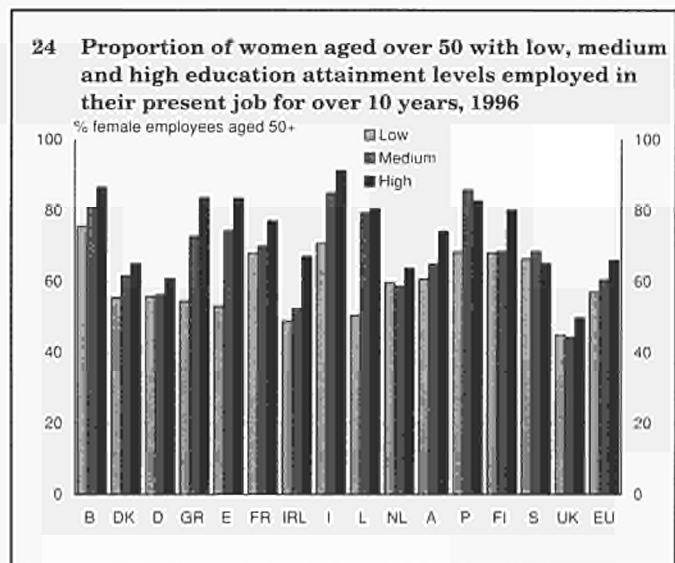
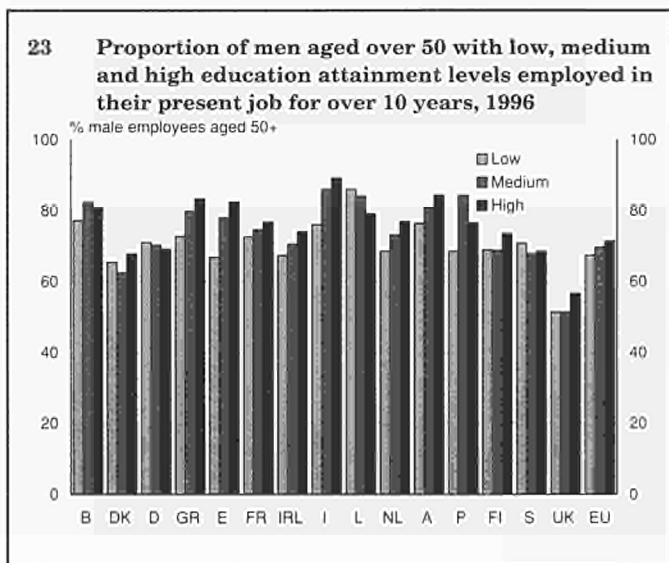


Job duration and educational attainment

The pattern of variation in job duration between men and women with different educational attainment levels is not wholly in line with that in annual turnover rates. For men aged 35 to 49, some 55% of those with only basic education had been in their current job for over 10 years in 1996 in the Union as a whole as compared with just under 51% of those with university degrees or the equivalent. Moreover, in 8 of the 15 Member States, the proportion was higher for those with basic education than for those with university-level qualifications — though except in two cases,

lower than for those with upper secondary schooling (Graph 21). Despite the relatively high average rate of job turnover, therefore, over half of men in this age group with only basic education had very stable jobs — indeed, in Belgium, almost two-thirds had had the same job for over 10 years and in Italy and France, over 60%.

The fact that the proportion for those with secondary education was even higher, in this case in line with the figures on job turnover, suggests that it is the pattern of job duration for those with university education that is somewhat out of line with that for those in the other two educational categories. In particular, men in the former category are both less likely to change their job



after a short period of time and less likely to remain in it for a long period than those with low levels of education.

For women, this is not the case. For those aged 35 to 49 with university-level qualifications, the proportion who had been in their current job for more than 10 years was significantly higher than for those with only basic education (48% as opposed to 40%), in line with annual job turnover rates, and only in Finland was the reverse the case (Graph 22). This reflects the tendency for less educated women to be more likely to interrupt their working careers to take care of children than those who are better educated (data from the Labour Force Survey show that participation rates of women in this age group with university degrees or the equivalent are substantially higher than those of women with only basic education).

For men and women aged 50 and over, the pattern of variation in job duration mirrors that in rates of job turnover and the proportion who had been in their current job for a long period of time was relatively high for those in all educational categories. This suggests that once people get to this age, there is little tendency for them to change jobs irrespective of their skills and qualifications.

For both men and women, there is some tendency for the proportion who had been in the same job for over 10 years to be higher for the more educated than the less educated. For men in this age group, in 1996, some 71½% of those with university education had been in their current job 10 years earlier as opposed to 67½% of those with only basic education. Only in Germany (marginally), Luxembourg and Sweden was the proportion for the former group less than for the latter group (Graph 23). The difference was particularly marked in the South of the Union, where in Greece, Spain and Italy, the proportion for the more highly educated was at least 10 percentage points higher than for those with no education beyond basic schooling.

For women of 50 and over, the difference is more pronounced. Some 66% of women in the Union with university-level education had been in their current jobs for over 10 years as against 57% of women with only basic education. In all countries apart from Sweden, the difference was in the same direction and significant. In Greece and Spain, as well as Luxembourg, it was around 30 percentage points and in Italy, 20 percentage points (Graph 24).

Concluding points

In sum, therefore, the evidence indicates clearly that job turnover rates tend to decline significantly as people get older and the average number of years spent in the same job increases. Both men and women with lower levels of educational attainment are more likely to change their job after a short period of time than those with higher levels, perhaps reflecting the greater instability of the jobs concerned and the higher proportion which are in declining sectors. At the same time, men with university degrees or the equivalent, at least those under 50, are more likely to change their job after a time than those with lower levels of education. On the other hand, highly educated women have more stable employment patterns than others. Overall, the evidence is very much in line with data on unemployment rates, that the better educated are better placed to find employment and are much less affected by job instability than their less well educated counterparts.

It is questionable whether, as average levels of education rise and a higher proportion of the work force have qualifications beyond basic schooling (at present, it is still the case that around 35% of both men and women in employment in the Union — half or more in Southern Member States — have no qualifications beyond basic schooling), rates of job turnover will decline. In practice, this depends as much on the nature of the jobs being created as the people filling them. However, even if turnover does decline, this should not necessarily be interpreted as a reduction in labour market flexibility. So long as people are able to change their job as structural changes in the economy require and have the skills and aptitude to take up the new jobs being created, economic competitiveness should be maintained. Indeed, since a significant part of job turnover consists of the rectification of mismatches between jobs and workers, the increased capabilities of the latter which come from higher levels of education may help to reduce this element, with no adverse implications at all for flexibility and beneficial effects on efficiency.

Labour migration in the European Union

With economic and monetary unification an imminent prospect in the European Union, there is increasing interest in alternative means of regional adjustment in the future single currency area. One such means is the movement of workers between different places, which has the potential for correcting imbalances in local labour markets in terms of both overall demand in relation to supply and the availability of labour with particular skills. In addition, with the fall in birth rates, international migration from outside has become the principal source of growth of working-age population — ie in the Union's potential labour force — and is likely to be the only source of increase in many Member States in the years to come.

Migration, however, can also give rise to problems, not only of a social nature, as has been well documented, but also of economic and environmental kinds, insofar as it is associated with a movement out of areas in decline into ones which may be already congested, so leading to the loss of much-needed purchasing power in the former and increased pressure on resources and infrastructure in the latter. As a result, it can potentially worsen regional imbalances and widen disparities in economic performance, which structural policies are aimed at correcting.

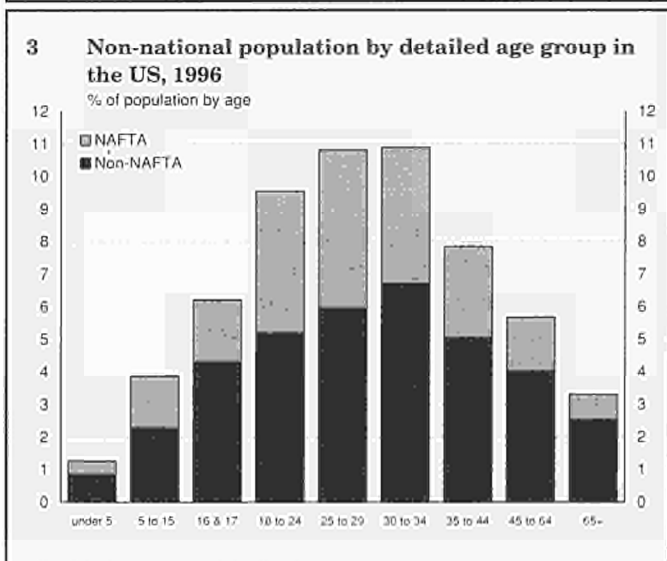
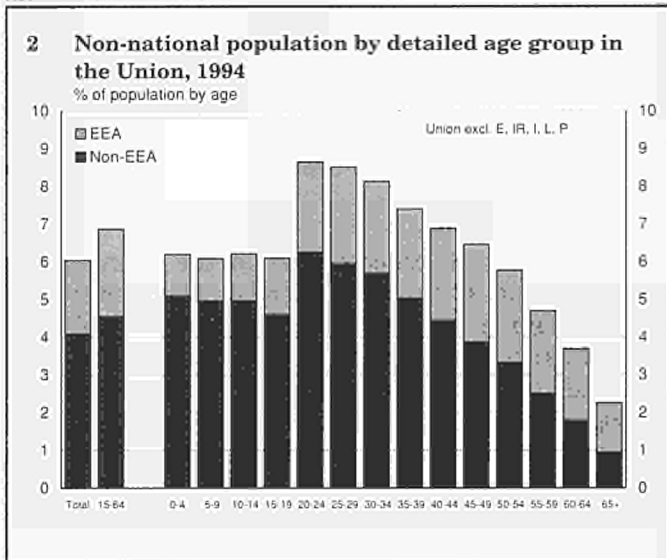
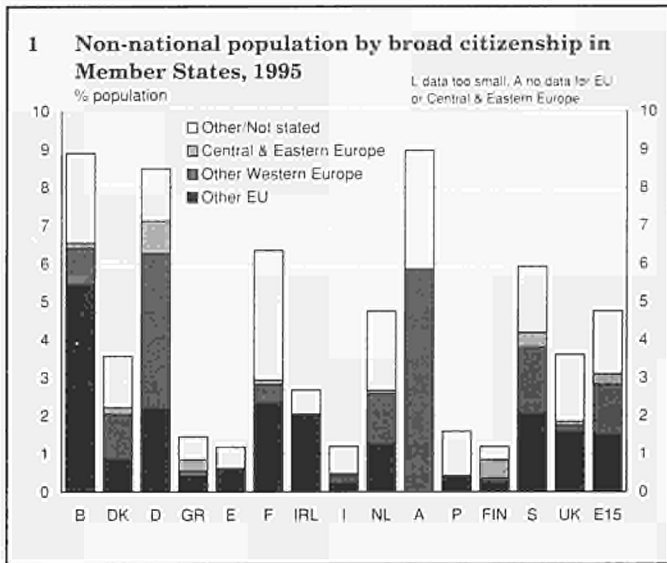
The aim here is not to consider these divergent effects in any detail but to document the scale of migration in the Union at present and how it is tending to change and to analyse the direction of population movements between regions in relation to different labour market conditions, especially rates of unemployment. To provide a relevant perspective and to give an indication of possible future developments, experience in the Union is compared with that in the US, where economic and monetary union is of much longer standing and where there are fewer obstacles — language, cultural and institutional — to migration. As such, the analysis extends that published in *Employment in Europe, 1997* (see Part I, Section 5).

Non-nationals in the population

In 1995 — the latest year for which data are available — around 5% of the population in the European Union were non-nationals in the sense that they did not hold citizenship of the Member State in which they lived (Graph 1). Most of them originate from within Europe itself rather than from outside. Around a third were citizens of other Member State in the Union, just over a quarter were citizens of other countries in Western Europe (with over half of these holding Turkish citizenship) and some 6% came from Central and Eastern Europe. The remaining third were citizens of countries outside Europe, with just over half of these from the Maghreb countries.

Non-nationals are concentrated in the younger age groups (Graph 2). In the 10 Member States for which detailed data on their age structure are available (the 15 excluding Spain, Ireland, Italy, Luxembourg and Portugal), in which non-nationals comprise some 6% on average of resident population, they accounted for just under 7% of working-age population (those aged 15 to 64) in 1995, for 8½% of the 20 to 29 age group and 8% of those aged 30 to 39. By contrast, under 2% of those of 65 and over were non-nationals. The main variation in share between age groups is among those originating from outside the Union and other parts of the European Economic Area, from the rest of Europe and North Africa, in particular. These accounted for around 80% of non-national children under 15 but for under half of those of 55 and over.

A similar pattern is true of the US. Overall just under 6½% of the total population in the US in 1996 were non-US citizens, but these accounted for 8% of working-age population (16 to 64 in this case) (Graph 3). Just over a third were from other NAFTA countries — Mexico or Canada — which border the US (though unlike in the European Union, there is no provision for the free movement of people as yet under the NAFTA agreement). As in the Union, the highest share of non-nationals was in the 18 to 34 age group, where it



amounted to some 9½% of resident population, whereas it was less than 4% in the case of those of 65 and over.

Within the European Union, non-nationals are most numerous in Belgium and Germany, accounting for around 10% of working-age population in both cases in 1995, two-thirds of these in Belgium coming from other EEA countries, which suggests that the scale of migration from the rest of the Union has been significantly greater in the past than for other Member States (Graph 4). Elsewhere, non-nationals accounted for around 7% of working-age population in France, Austria and Sweden, while in Greece and Finland the figure was less than 2%.

In the US, variations between different broad regions of the country are even more marked. In 1996, only 3% of working-age population in the Mid West were not US citizens, whereas in the West (predominantly California) the figure was as high as 16% and around 20% of those aged between 18 and 34 were non-nationals.

Contribution of migration to population change

The growth of population in the Union as a whole has slowed over the last two decades. In the 1970s, it averaged around ½% a year, whereas now population is growing at only half this rate and is set to fall further in the years to come (Graph 5). The fall, however, would have been greater without net migration into the Union, since the natural increase has declined to virtually zero as fertility rates have fallen sharply. In 1995, the birth rate exceeded the mortality rate only marginally and the natural rate of population growth was under 0.1%. In the next few years, if these trends continue, population is set to decline in the Union in the absence of inward migration.

Indeed, net inward migration has risen in recent years to offset much of the decline in fertility rates, adding the equivalent of 0.2% to total population each year. Net immigration, therefore, at present accounts for two-thirds of overall population growth and is likely to be the sole source in the near future.

It is, however, difficult to predict the rate of net inward migration over the coming years. Much depends on economic developments in the Union relative to those in neighbouring countries, as well as political events in Central and Eastern Europe, North Africa and the Middle East. During the recession in the early 1980s,

there was a small net outflow of population from the Union, which was reversed during the economic upturn in the second half of the decade. Moreover, the surge of net inward migration in the early 1990s was largely fuelled by the collapse of communism in Central and Eastern Europe, the break-up of the former Soviet Union and the deep recession which resulted from the breakdown of the Comecon system of trade. Between 1989 and 1993 net inflows boosted the Union's population by around 0.3% — or more than 1 million people — each year, despite the slow rate of economic growth over the period, whereas previous migratory flows had rarely amounted to more than 0.1% of population.

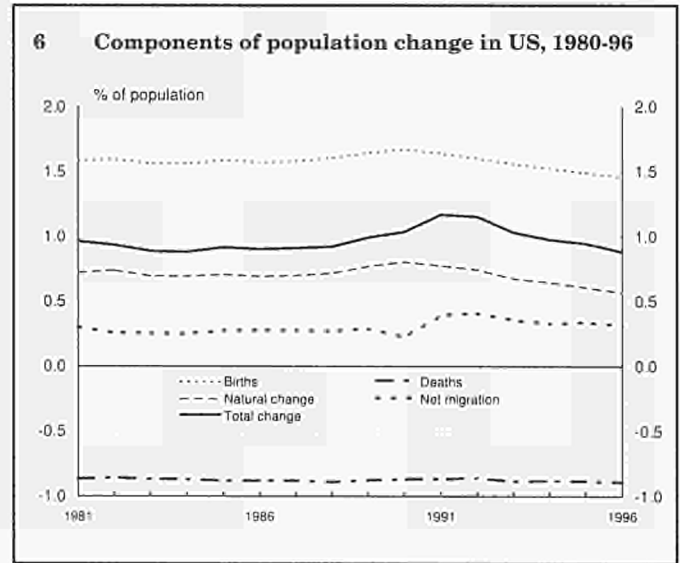
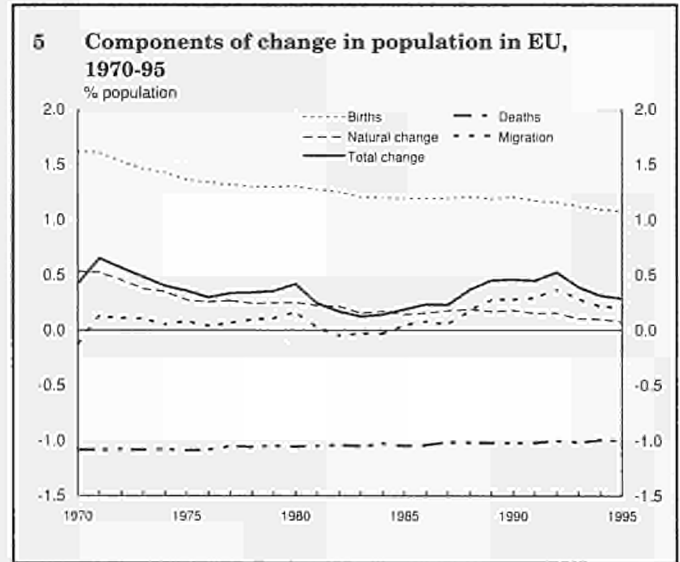
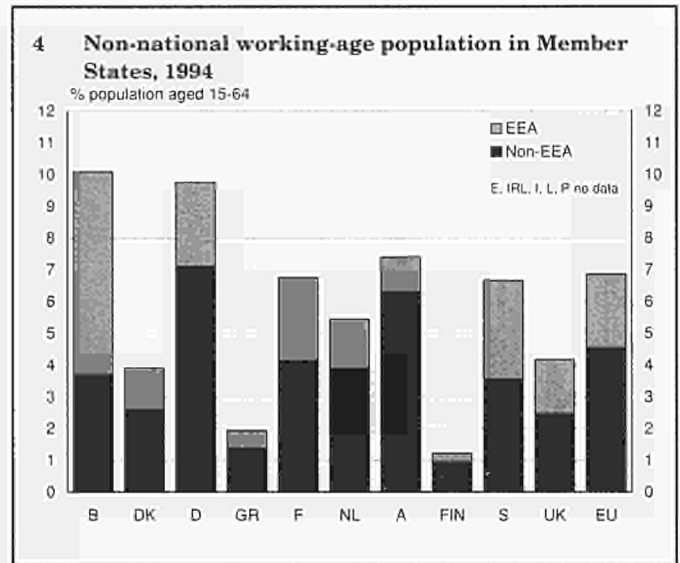
In contrast to experience in the Union, population has grown faster and more consistently in the US, at around 1% a year since 1980 (Graph 6). Net inward migration has been about the same as in the Union, adding some 0.3% to total population each year, but this has taken place in the context of much higher rates of natural population increase, with no significant decline in birth rates.

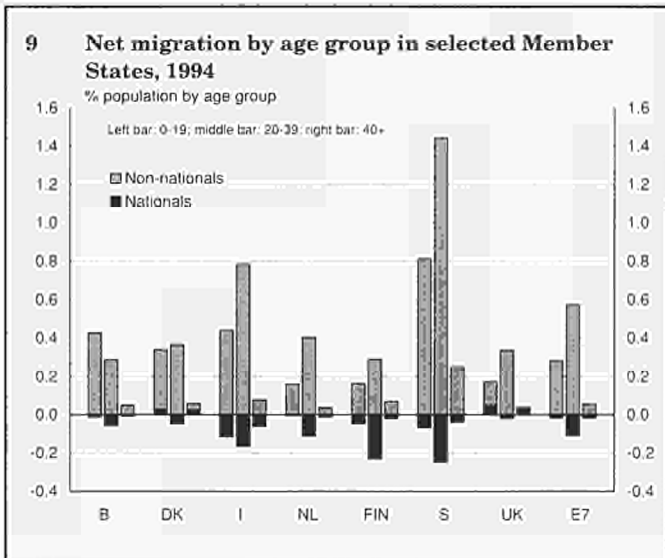
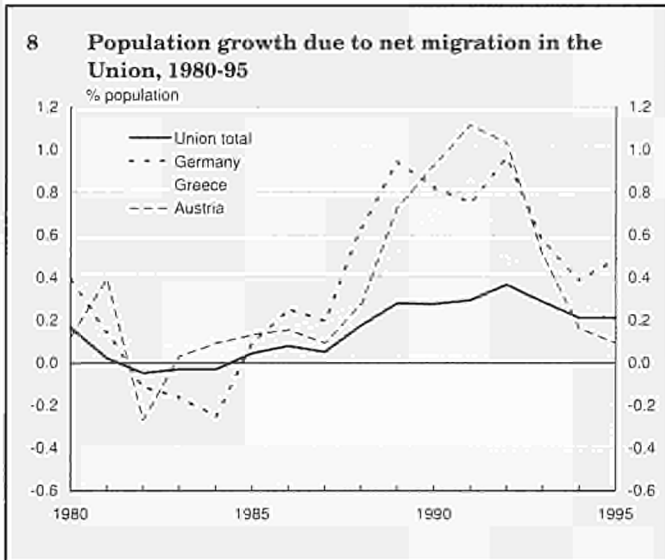
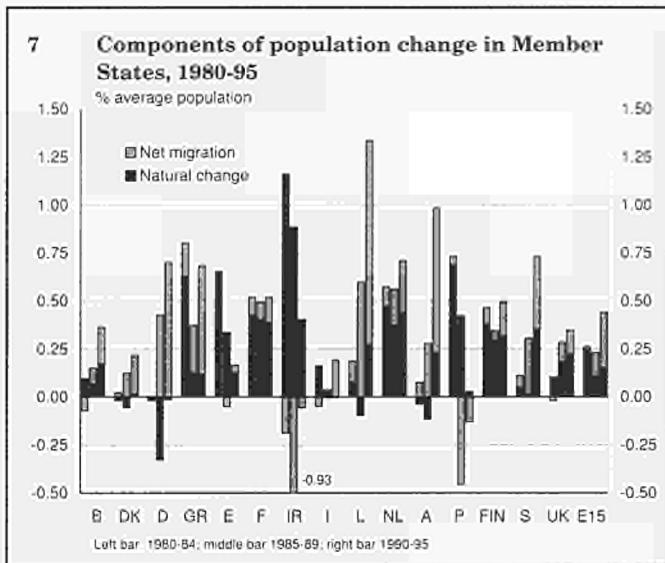
Population growth in Member States

The demographic trends evident at the Union level conceal marked differences between Member States. The declining contribution of the natural rate of population growth has been most marked in the South of the Union. In the early 1980s, the natural growth of population amounted to over 1/2% a year in Greece, Spain and Portugal — twice the Union average. In the 1990s, the natural rate has fallen in all of these countries to below the Union average and in Italy, has become negative. In all of these countries, all or virtually all of the growth in population is now due to inward migration (Graph 7).

The natural rate of population change remains positive in most Northern Member States, the main exception being Germany, where, as in Italy, there is a natural decline. Germany apart, in the North of the Union, there are an average of around 11 1/2 live births per 1000 people each year as against around 9 1/2 deaths per 1000, resulting in natural population growth of some 0.2%.

Irrespective of the rate of natural population change, net inward migration has made an increasing contribution to total population growth throughout





the Union, with the exception of Ireland and Portugal which have both continued to experience a net outflow, though at a sharply reduced rate since the mid-1980s.

Recent migration into the Union from Central and Eastern Europe has mainly been to Germany, Austria and Greece (Graph 8). Between the mid-1970s and the late 1980s, Germany and Austria both experienced years of net inward and outward migration — many more of the former than the latter in the case of Austria — but this rarely amounted to more than 0.3% of total population, while in Greece, immigration was consistently below 0.2% of population each year. In the late 1980s and early 1990s, net inward migration added the equivalent of 1% of resident population a year in both the former countries and around 0.7% a year in Greece. There was also migration from Central and Eastern Europe into Finland, Sweden and the Netherlands, though on a smaller scale.

Net migration by citizenship

For the 8 Member States for which data are available, around a quarter of net immigration in 1994 was accounted for, on average, by nationals returning home. However, this average conceals significant differences between Member States. In Belgium, Italy, the Netherlands, Finland and Sweden, there was a net outflow of nationals rather than an inflow, so that all of the net inward movement consisted of non-nationals in these cases. A high proportion of these came from Central and Eastern Europe and the former Soviet Union. For Sweden, people moving from the former Yugoslavia accounted for over 80% of net inflows and for Italy, around a third, while for Finland, over half came from the former Soviet Union and Baltic States.

There are also major differences in the pattern of net migration between age groups. Both nationals moving out of Member States and non-nationals moving in tend to be disproportionately in the 20 to 39 age group in most countries (the main exception is Belgium where net inflows of children and young people below 20 were relatively more important). For the 7 Member States for which data are available, net inflows of non-nationals in this age group in 1994 added an average of some 0.6% to resident population of the same age (almost 1½% in Sweden), while nationals of this age accounted for virtually all of the net outflows (Graph 9).

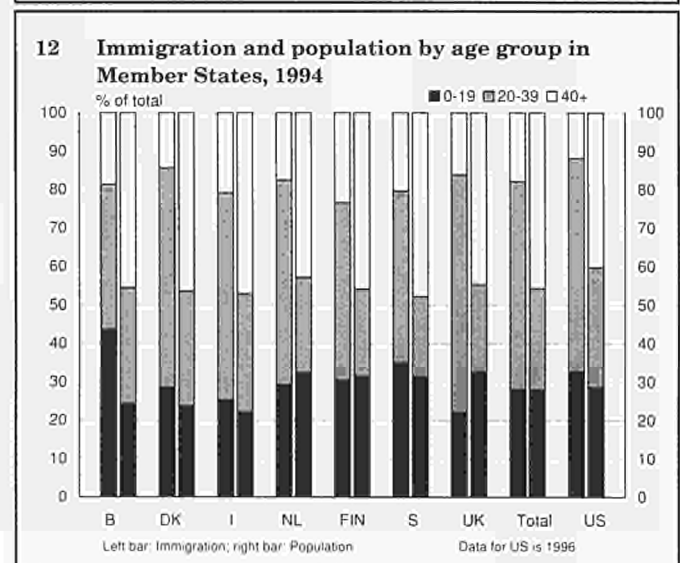
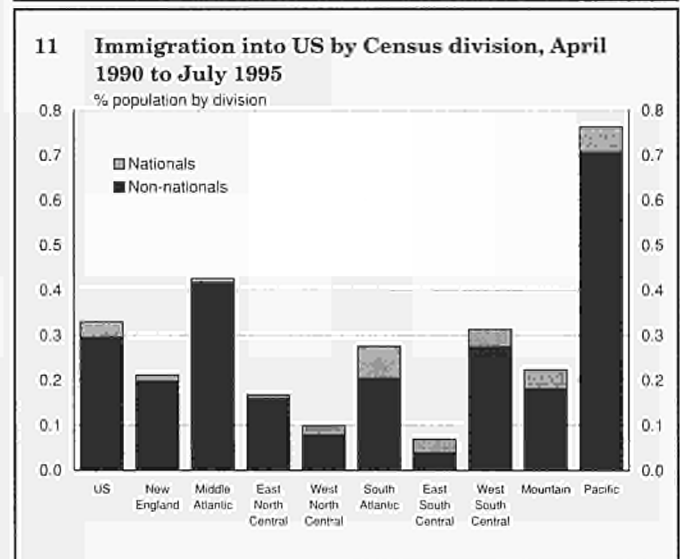
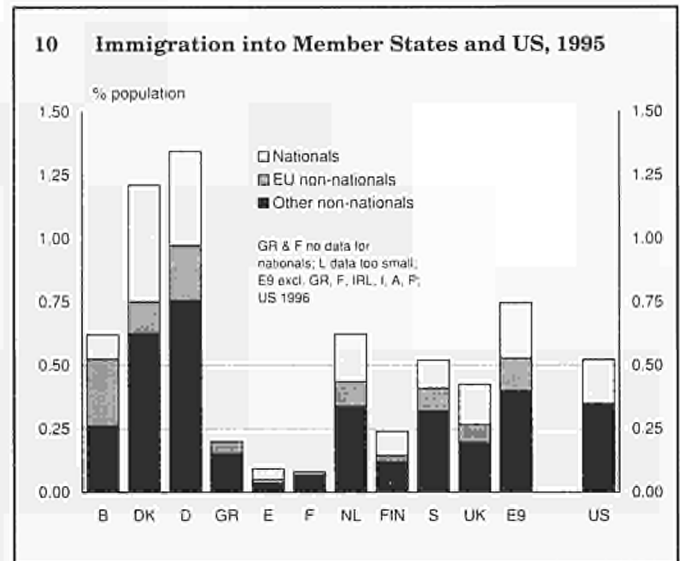
The characteristics of immigrants

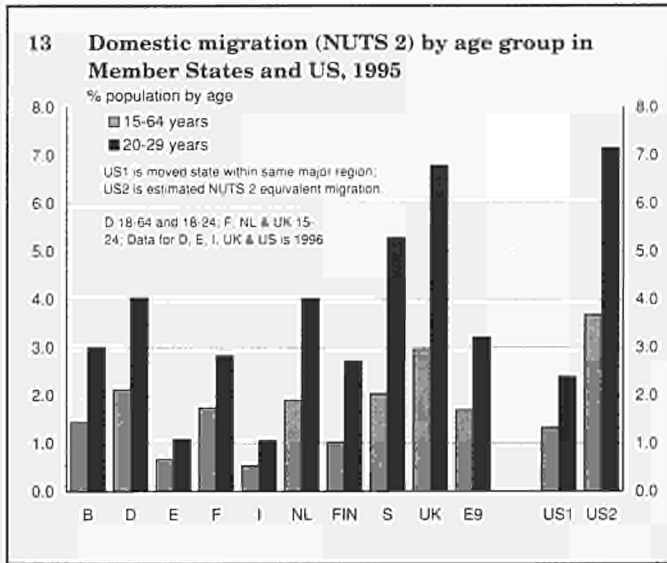
The above findings are broadly true of the characteristics of immigrants alone, for which there are more reliable data than for emigrants, as might be expected given both the relative ease and interest in collecting information about the two.

For the 9 Member States for which data are available on a broadly comparable basis, inflows of migrants in 1995 added overall some 0.75% to resident population, though over 1.2% in Germany and Denmark. Almost a third of immigrants were nationals returning home and around 17% were non-nationals from other Union countries. Non-nationals from outside the Union, therefore, accounted for just over half of all immigrants (Graph 10). These proportions were relatively similar across Member States, though nationals returning home accounted for a relatively high share of total inflows in Denmark, Spain and the UK (around 40% or so) and immigration from the rest of the Union was comparatively important in Belgium and, to a lesser extent, in Germany, accounting for around half and a quarter of the total, respectively. Nevertheless, even in the latter two countries, people moving from other Member States added only some 0.25% to total population in 1995.

The total number of immigrants into the US amounted to around 1/2% of resident population in 1996, a third being nationals returning home (Graph 11). Both figures, however, are somewhat higher than in previous years, the average inflow over the 1990s being equivalent to 0.3% of total population and nationals returning home accounting for some 10% of this. Moreover, the scale of immigration varies markedly between Census regions of the US. Inflows from abroad into the Pacific region (predominantly California) amounted to almost 0.8% of total population, over 90% of these being non-nationals, while inflows into the East South Central region (Mississippi, Alabama, Tennessee and Kentucky) represented under 0.1% of population, almost half being returning nationals.

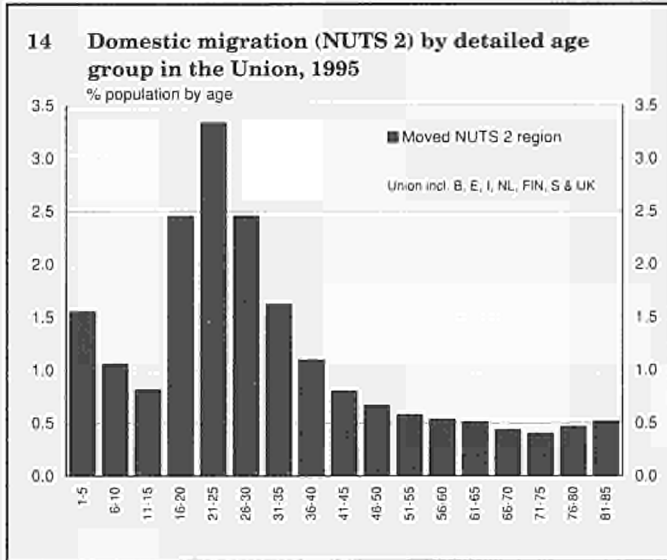
As implied above, immigrants are concentrated in the 20 to 39 age group in both the Union and the US, these accounting on average for around 55% of the total, around twice the share of this age group in total population in the two economies (Graph 12, which is for 1994 for Europe and 1996 for the US, but broadly representative of other recent years). Under 20% of immigrants are aged 40 or over, under half the share of people of this age in resident population.



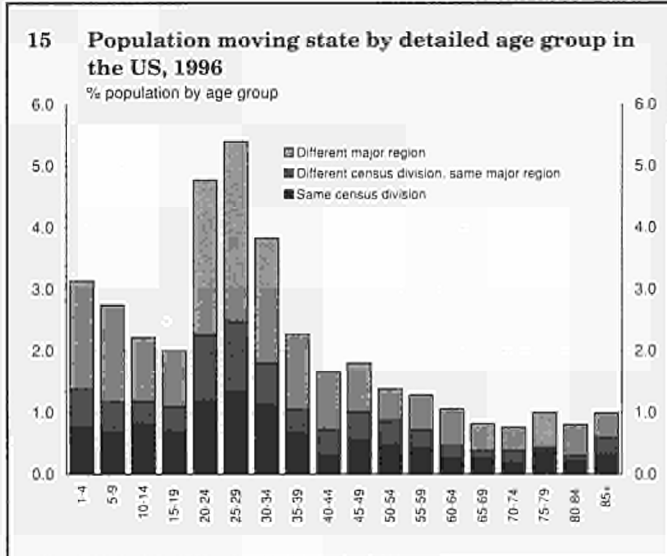


Regional migration of working-age population

Just over 1½% of people of working age (15 to 64) moved between NUTS2 regions in the Union in 1995 (the Union is divided geographically into 200 or so such regions) (Graph 13 — see Box for details of the data). This is less than the proportion of people in the same age group moving between States in the US (just under 3%), but slightly more than the 1½% who moved between States within the same Census region. (This, from one perspective, is arguably a more relevant comparison since the Union data exclude those moving from one Member State to another, though as noted above, this is a relatively small number. The US Census regions are roughly similar in population size to Member States, though, on the other hand, US States are larger than NUTS 2 regions, which would bias the results downwards in the US case. The most relevant comparison is perhaps between NUTS 1 regions in the Union — of which there are 77 — and US States, though there are slightly fewer data available at this level. For NUTS 1 regions, migration amounted to around 1.3% of working-age population, which if an estimate of inter-Member State movement is added — given that some of the returning nationals will also be moving between Member States — would give a figure of just over 1½% for internal migration as compared with just under 3% in the US.)



Within the Union, interregional migration is much higher in the Northern Member States, where it averages 2% or more — more similar to levels in the US — than in the Southern ones, where it is under 1% (at least for Spain and Italy, the countries for which data are available).



For all countries in the Union, as in the case on international migration, young people in their 20s (15 to 24 in the Netherlands and the UK) are by far the most mobile. Indeed, in both the Union and the US, regional mobility declines markedly with age (Graphs 14 and 15). In the Member States for which data are available, just over 3% of the population in this age group moved between regions in 1995. This compares with just under 5% who moved between States in the US, or 2½% who moved between those in the same Census region. As for total population of working-age, interregional migration is far higher among younger people in the North of the Union than in the South. Whereas in Spain and Italy, only around 1% of people aged 20 to 29 moved between regions, in Germany and the Netherlands, the

figure was 4% or more, in Sweden, over 5% and in the UK, almost 7%.

Domestic migration and regional imbalances

A key issue for policy is the extent to which migration responds to differences in economic circumstances between regions and, in particular, the extent to which geographical labour mobility tends to alleviate regional imbalances. To examine this issue, net migration flows between regions are analysed below in relation to regional rates of unemployment, the main focus being on the direction of movement of working-age population as between regions in order to see how far this serves to even out differences in unemployment rather than to accentuate them. (Relative rates of unemployment are taken here as an indicator of relative regional labour market conditions, primarily because of their availability and timeliness as well as their relevance for those contemplating moving. Other possible indicators include employment growth, the structure of economic activity and regional wage levels, all of which are more difficult to measure, but no less relevant.)

The results are presented graphically for those Member States above a certain size in terms of land area and for which reasonable data exist. Specifically, the graphs show net migration of people of working age relative to the percentage point difference between regional and national unemployment rates in the preceding year. (In practice, relative unemployment rates in European regions change only very slowly over time, so that the choice of year is not so important.) If there is a strong migratory response to regional differences in unemployment, then regions should be concentrated along a line running from the top left hand quadrant of the graph to the bottom right hand one, indicating a tendency for people to move to regions with low unemployment and out of those with a high level. The steeper the line, the more pronounced the response of migration to relative unemployment rates.

Data sources on labour migration

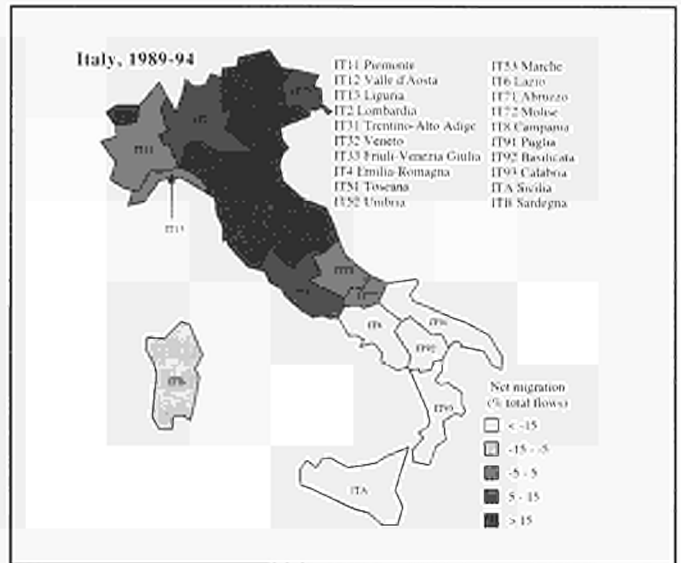
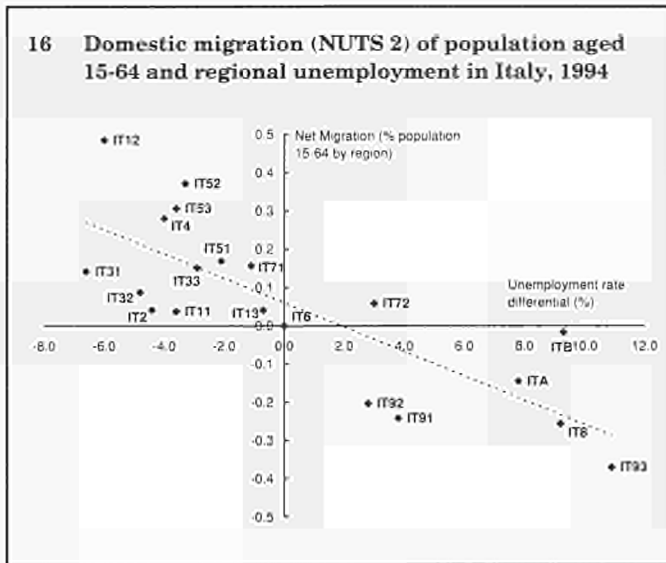
European Union: The data for population and migration are from Eurostat and are based mainly on national administrative records. Because of differences in definitions and statistical systems across Member States, comparable data on *international migration* are difficult to assemble and should therefore be treated with caution. Net international migration in the analysis is calculated, not as the difference between inward and outward flows, but as that between the total population on 1 January and 31 December of a given year minus the difference between births and deaths during the year. For further details see *Migration Statistics, 1996*, Eurostat.

Data on *domestic migration* are available for 10 Member States only and exclude Denmark, Luxembourg, Ireland, Austria and France, although for the latter data from the Community Labour Force Survey (on the country in which the respondent was living the previous year) are used for indicative purposes only (the data are likely to be underestimates to the extent that recent immigrants are under-represented in the sample). Internal migration data exist for most years for the first half of the 1990s with the exception of Greece, Portugal and Belgium, for which there are data for one year only. A set of 3 source files exist for most of these Member States for each year, one being a matrix of total interregional movements, while the other two record respectively inward and outward migration for each region by 5-year age group. No age data are available for either Greece or Portugal. In each case interregional movements are recorded at level 2 of the *Nomenclature of Territorial Units for statistics* (NUTS), with the focus of the analysis on the population of working age (15 to 64 years).

US: Most of the data for the US comes from the reports on *Geographical Mobility*, produced annually by the US Census Bureau. The latest report (P20-497) covers mobility within and into the US from March 1995 to March 1996. This is supplemented by data from the report (P20-494) on *The Foreign-Born Population, 1996*, also from the Census Bureau. Both reports are based on data from the *Current Population Survey* (CPS), which is comparable to the Community's own Labour Force Survey. Unless otherwise specified, all references to total population are for those aged 1 year and over.

Regional analysis in the US has been conducted in terms of the 4 major regions and the 9 Census divisions, as follows:

- North East: *New England, Middle Atlantic*
- Mid West: *East North Central, West North Central*
- South: *South Atlantic, East South Central, West South Central*
- West: *Mountain, Pacific*



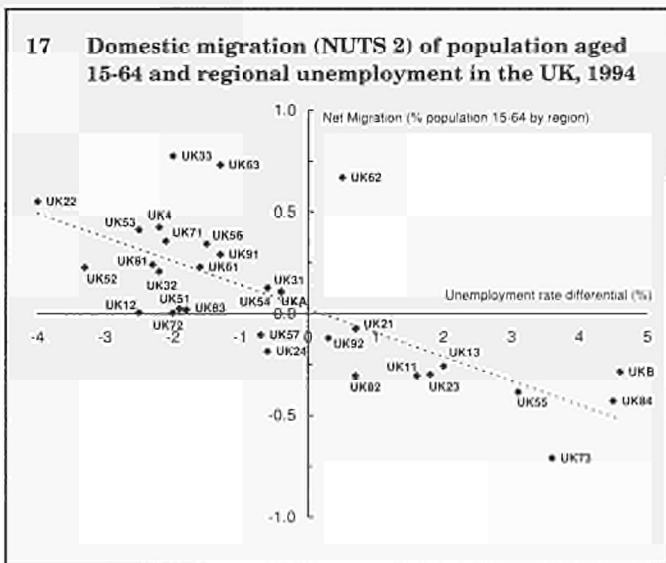
The maps show net migration of those of working age in relation to the sum of inflows and outflows — ie of all those moving in both directions — over the first part of the 1990s, a positive figure (the darker shades on the map) indicating an average net gain in working-age population from migration during these years and negative one (the lighter shades) an average net loss.

Italy

Italy provides the clearest case of migration in response to differences in regional labour market conditions. High unemployment is concentrated in the Mezzogiorno, and has been for a great many years, and there is a net outflow of working-age population from here to

the low unemployment regions in the North. Nevertheless, the scale of movement is relatively small, Calabria, the region with the highest unemployment (11 percentage points above the national average in 1993) experiencing a net outflow equivalent to less than 1/2% of working-age population in the region (Graph 16).

The flows of migrants, moreover, were predominantly in one direction. With the exception of Sardinia, net outward migration of people of working age from all the Southern (NUTS 2) regions averaged 18% or more of total flows over the period 1990 to 1994, while for Campania, the figure was over 30%, outflows being twice the size of inflows. The main destination regions were Tuscany, Umbria, Marche, Emilia-Romagna and



Valle d'Aosta, where net inflows averaged over 20% of total movements (inflows being over half as big again as outflows).

UK

The direction of migration flows in the UK also seem to have been relatively closely linked to regional differences in unemployment (Graph 17). Though there is less of an obvious North-South divide than in Italy, working-age population has tended to move away from regions of industrial decline and relatively high unemployment, such as the West Midlands and Merseyside, towards lower unemployment areas. However, although overall migration is high by Union standards (almost 3% of working-age population being involved), much of this consists of movements in both directions (ie 'population swapping') rather than a significant net shift in population from one part of the country to another. For the UK as a whole, net flows between regions averaged only 5% of total flows between 1990 and 1994.

Germany

In Germany, there is a distinct difference between the early and later years of the period. Following unification, in 1990 and 1991, each region in the new Länder lost over 1% of working-age population as a result of outward migration and outflows were over twice the size of inflows (over 2½ times the size in *Mecklenburg-Vorpommern* (DE8)). In 1993 and 1994, however, net outward migration fell to only around ½% of working-age population, despite unemployment rates of 7

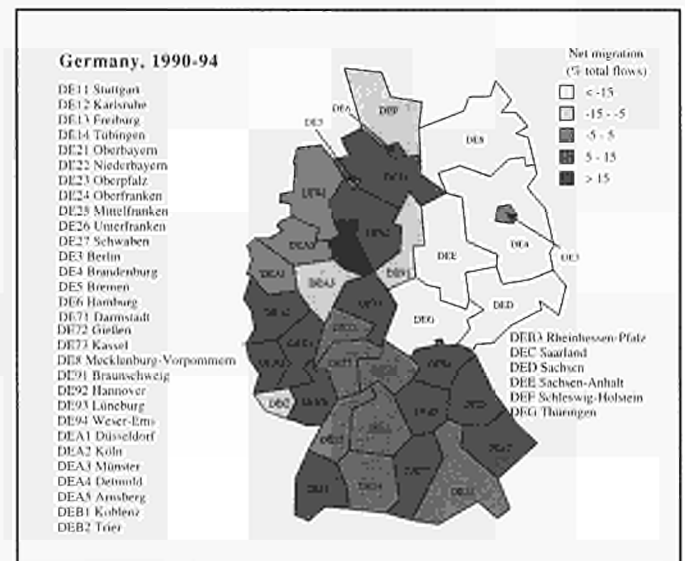
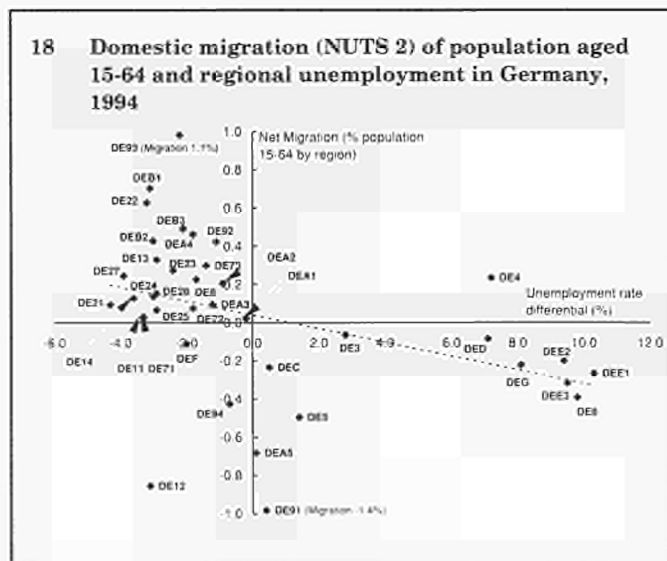
percentage points or more above the national average, and there was a less systematic relationship than in earlier years (Graph 18). Moreover, the difference between outflows and inflows declined appreciably (net flows were only around 20% of total flows).

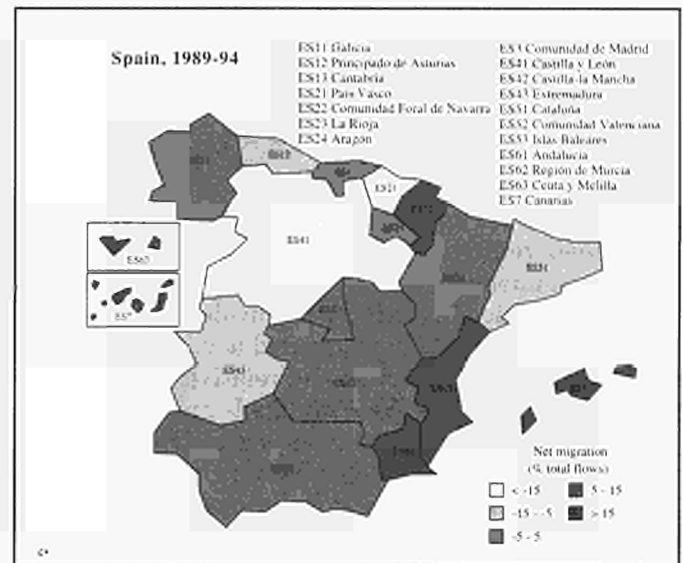
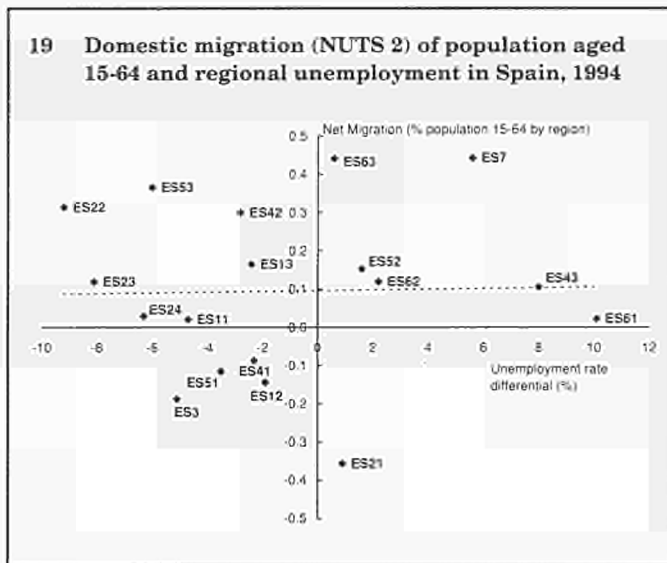
Spain

Spain, like Italy, is characterised by distinct differences in labour market conditions between regions, but there is much less of an association than in Italy or elsewhere between migration flows and regional unemployment rates (Graph 19). This could reflect the possibility that unemployment rates are less of an indicator of employment opportunities than in other countries or simply that other factors predominate, a sign perhaps of a successful structural policy (the high unemployment regions in Spain tend to be Objective 1 areas for European Structural Fund purposes).

Of the 18 NUTS 2 regions, 7 had unemployment rates above the national average, but only one of these — *Pais Vasco* in the North (where the rate of unemployment is just 1 percentage point above the national average) — experienced net outward migration. High unemployment regions tend to be concentrated in the South of the country (including in the Canary Islands), and all of these experienced net inflows. Moreover, four regions had unemployment rates of at least 2 percentage points below the national average and still suffered a net loss of working-age population through migration.

Net outward migration from *Pais Vasco* (ES21) was on average almost twice the size of inward migration be-





tween 1989 and 1994, resulting in an overall loss of over 1% of its working-age population.

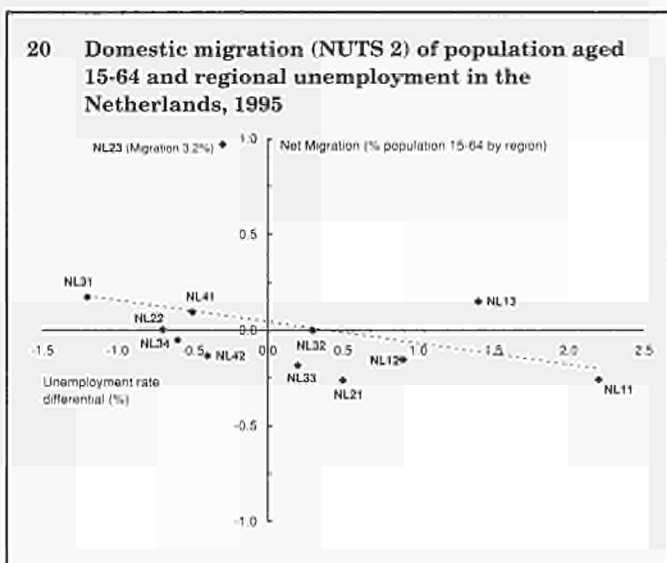
Netherlands

In the Netherlands, the rate of internal migration was highest for *Flevoland* (NL23), where, between 1994 and 1995, net inflows added over 3% to total working age population, much the same as throughout the 1990s, despite unemployment in the region being around the national average (Graph 20). Since Flevoland is the country's only Objective 1 area, this perhaps signifies the effect of structural assistance.

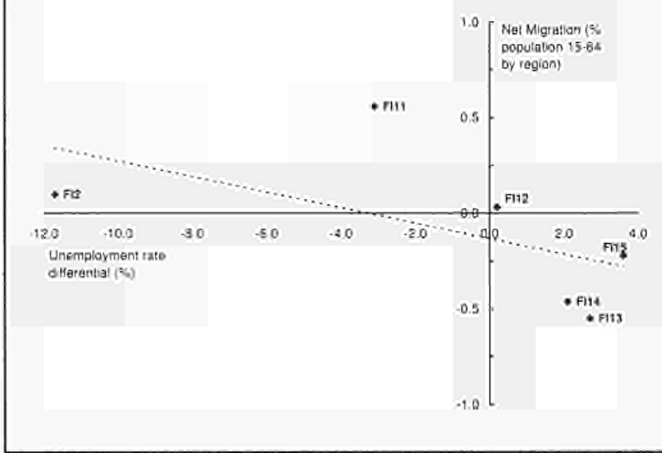
Elsewhere in the country, there was net migration away from regions of relatively high unemployment, mainly in the North, to areas where the level was lower, though the scale was small, amounting to well under 1/2% of working-age population. Moreover, net flows averaged less than 4% of total flows over the period 1990 to 1994, indicating that movements were generally both into and out of regions with different unemployment rates.

Finland

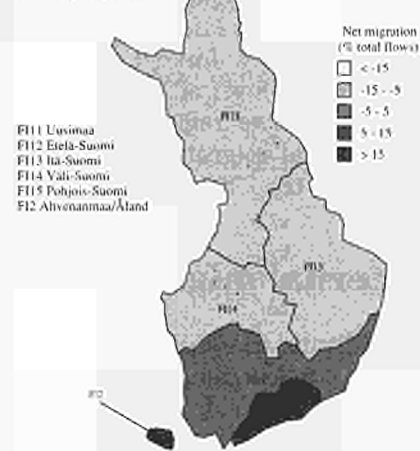
In Finland, high unemployment regions tend to be in the North of the country and the prevalent movement of working-age population has been away from these to



21 Domestic migration (NUTS 2) of population aged 15-64 and regional unemployment in Finland, 1995



Finland, 1989-95



the South, to *Uusimaa* (FI11) and the island group of *Ahvenanmaa /Åland* (FI12), where net inflows averaged around 20% of all flows (ie inflows were around half as big again as outflows) (Graph 21). Nevertheless, to put this in perspective, the latter region accounts for a mere 1/3% of working-age population in the country as a whole.

in 1995. There was, however, over the early 1990s, relatively little difference in general in the relative magnitude of outflows and inflows, net movements averaging only around 10% of total flows.

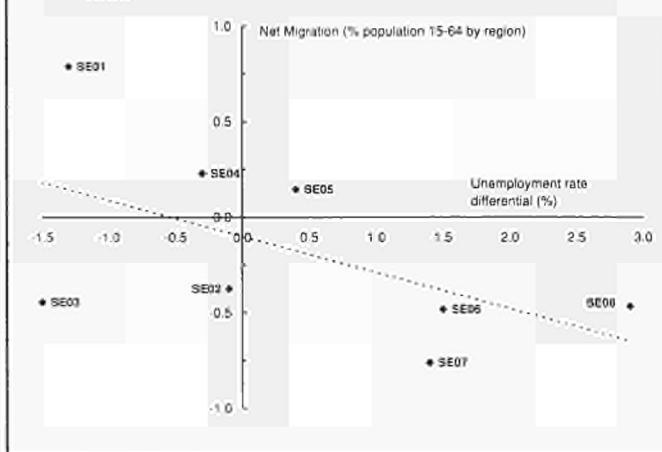
Sweden

US

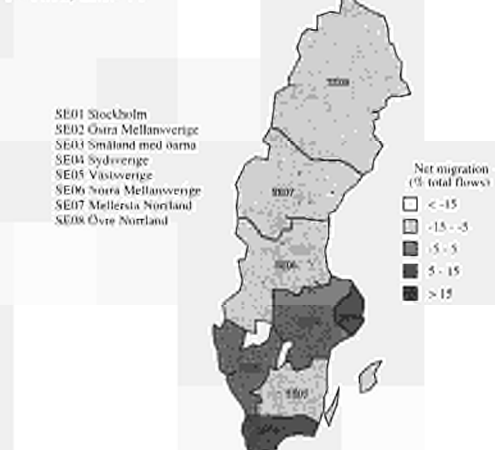
As in Finland, the high unemployment regions in Sweden are in the North and between 1994 and 1995, each of these each lost around 1/3% of their working-age population through outward migration (Graph 22). The main destination region was Stockholm (SE01), net inflows adding almost 1% to its working-age population

In the US, by comparison, there is much less of a difference in average rates of unemployment between the 9 Census in 1995, the highest and lowest rates being only 3 percentage points apart. Despite this, however, a strong tendency is still evident for population (in this case total rather than working-age for which data are not available) to move from high to low unemployment areas (Graph 23).

22 Domestic migration (NUTS 2) of population aged 15-64 and regional unemployment in Sweden, 1995



Sweden, 1989-95



Since 1988 there has been a steady drift of population from the North-East to the South and West of the country, which has affected the Middle Atlantic region (Pennsylvania, New York, New Jersey), outflows from which have been twice the level of inflows, and New England. Together, these two regions accounted for around half of all internal migration in 1991 at the height of the recession in the US.

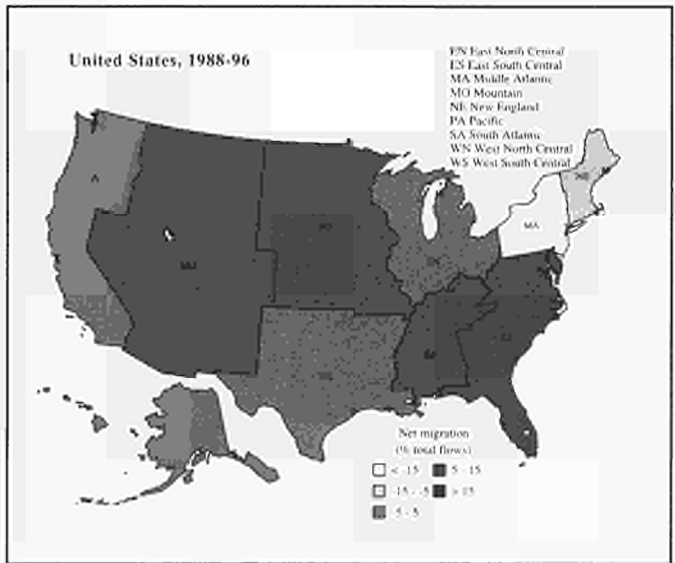
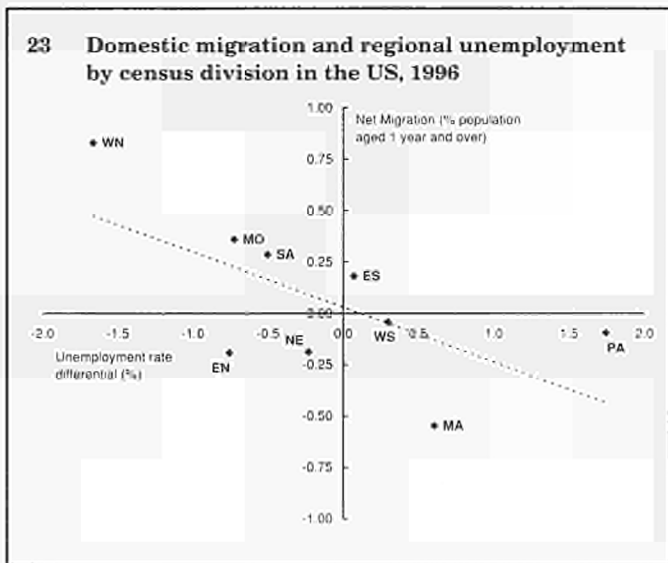
Trends in internal migration

The above analysis indicates that in general people tend to move away from high to low unemployment regions, though the strength of this trend varies substantially between countries. The relationship between net migration and the difference between regional and national rates of unemployment can be measured statistically by the correlation coefficient, which will be nearer to 1, the closer the relationship is (see Table 1, which summarises the main features of the relationship. The correlation coefficients essentially indicate the average closeness of the observations depicted in the graphs above to the straight line drawn to minimise the difference between the observations and the line. They say nothing about the strength of response of migration to unemployment variations, which is indicated by the steepness of the line on the graphs. It should be emphasised, in addition, that the correlation coefficients only indicate the closeness of a simple linear relationship between migration and unemployment; they do not take account of special factors or allow for the possibility of a more complex relationship between the two — such

as outflows increasing proportionately more as unemployment rises).

The effect of unemployment on migration appears to be particularly systematic in Italy, Finland, the UK and the US, where net movements tend predominantly to be from high to low unemployment regions. At the same time, in a number of countries, there are also relatively large flows in the opposite direction, even in those such as the UK, where net flows (ie inward less outward movements) are closely related to relative levels of unemployment. Here net migration between 1989 and 1994 averaged under 5% of total flows — which in aggregate amounted to 3% of working-age population — implying that there was, on average, only a difference of 10% between inflows and outflows (Table 1). This, in turn, implies that a major part of migration has no effect on the regional distribution of working-age population and consists of people moving in both directions, perhaps responding, in part, to demands in different regions for particular skills. Net migration is also comparatively small in these terms in the Netherlands, where migration flows are also relatively large, whereas in Italy flows tend to be more in a common direction (the difference between inflows and outflows averaging around 40%), though less in more recent years than before.

One further point to note from the evidence concerns the effect of changes in national rates of unemployment and in the extent of difference in rates between regions. In the US, for example, where data are available for a slightly longer time period than in Europe, the relative scale of net migration seems to have risen significantly



**Table 1 — Domestic migration of working-age population
in the European Union and the US, 1989–96**

Scale of migration (total flows between NUTS 2 regions as % population 15-64)

	D	E	I	NL	FIN	S	UK	US
1989-90	na	0.73	0.63	1.94	1.02	1.86	2.57	1.96
1990-91	2.27	0.43	0.57	1.93	0.65	1.77	2.81	1.77
1991-92	2.21	0.59	0.59	1.93	0.56	1.60	2.87	1.71
1992-93	2.06	0.62	0.56	1.92	0.64	1.70	2.87	1.61
1993-94	2.12	0.67	0.54	1.89	0.97	2.08	2.96	1.53
1994-95	na	na	na	1.90	1.02	2.04	na	na
1995-96	na	na	na	na	na	na	na	1.33

Unemployment rates: national averages

	D	E	I	NL	FIN	S	UK	US
1988	6.3	20.1	11	9.2	4.8	na	8.9	5.5
1989	5.7	17.4	10	8.5	3.8	na	7.4	5.3
1990	4.9	16.4	9.0	7.3	3.7	1.4	7.0	5.6
1991	5.3	16.0	8.7	5.7	6.6	2.8	8.6	6.8
1992	6.4	17.8	8.7	5.6	11.8	5.1	9.8	7.5
1993	7.6	22.3	10.3	6.3	17.2	9.0	10.5	6.9
1994	8.7	24.4	11.2	7.0	18.8	9.6	9.8	6.1
1995	8.2	22.7	11.9	7.0	17.6	9.1	8.8	5.6

Standard deviation of unemployment rates in NUTS 2 regions (% mean)

	D	E	I	NL	FIN	S	UK	US
1988	na	29.7	56.1	18.5	59.0	na	38.9	29.3
1989	na	34.8	62.8	17.5	60.7	na	49.3	25.8
1990	na	37.2	66.7	23.5	63.2	43.7	48.1	15.7
1991	49.4	37.5	64.9	16.0	45.3	27.5	31.8	7.4
1992	71.1	29.7	52.5	18.2	35.5	20.7	23.9	11.3
1993	57.8	23.3	51.9	15.5	31.1	14.6	20.8	15.5
1994	48.1	20.7	54.0	13.4	27.9	14.6	22.7	16.4
1995	45.7	25.1	56.9	13.4	29.2	15.9	25.4	17.7

Migration of working-age population and regional unemployment rate differences in previous year: correlation coefficients

	D	E	I	NL	FIN	S	UK	US
1989-90	na	-0.45	-0.84	-0.14	-0.97	na	-0.37	0.16
1990-91	na	-0.03	-0.84	0.02	-0.95	-0.42	-0.32	0.03
1991-92	-0.75	0.33	-0.84	-0.08	-0.98	-0.13	-0.43	-0.79
1992-93	-0.56	0.33	-0.79	0.07	-0.64	-0.41	-0.66	-0.74
1993-94	-0.37	0.02	-0.79	-0.23	-0.75	-0.54	-0.73	-0.62
1994-95	na	na	na	-0.21	-0.57	-0.55	na	na
1995-96	na	na	na	na	na	na	na	-0.65

Net migration as % total flows

	D	E	I	NL	FIN	S	UK	US
1989-90	na	11.50	19.32	4.46	9.13	3.69	5.06	10.98
1990-91	12.37	9.06	18.53	3.87	6.38	5.19	4.49	17.73
1991-92	7.93	8.27	19.10	3.73	6.08	7.35	4.46	10.76
1992-93	6.21	8.99	13.11	3.23	11.07	7.25	4.84	10.88
1993-94	6.71	10.81	12.96	3.30	14.52	11.67	4.88	11.99
1994-95	na	na	na	4.41	15.68	10.58	na	na
1995-96	na	na	na	na	na	na	na	6.97

average for period	8.37	9.86	16.73	3.83	11.14	7.80	4.74	11.79
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during the recession at the beginning of the 1990s, when both unemployment and the difference between regional rates rose. By 1996, when unemployment had fallen back to earlier levels, both net migration and total movements of labour had also declined (the former to only 7% of total flows). A similar phenomenon seems to be taking place in Finland and Sweden, where unemployment is historically very high and where the scale of net migration has risen markedly over the 1990s.

Factors influencing internal migration

Unemployment rates are clearly not the only factor affecting labour movement. Although the potential effect of other factors is difficult to analyse for Europe, US data are much more plentiful and enable a number of other relevant issues to be examined, specifically the employment status of those moving (ie whether they are employed or unemployed), the sectors of activity in which they work, their educational attainment levels and their housing situation (whether they are renting accommodation or home-owners). Although the results may not necessarily translate to Europe, they are, nevertheless, of interest.

Migration by employment status

Unemployed people are much more likely to move from one region to another than those in work or economically inactive. In 1996, just under 3% of the population aged 16 to 64 moved to a different State in the US, half of these moving to a different Census region. A dispro-

portionate number of those concerned were unemployed, 5% of these moving to another State, half of them to another region.

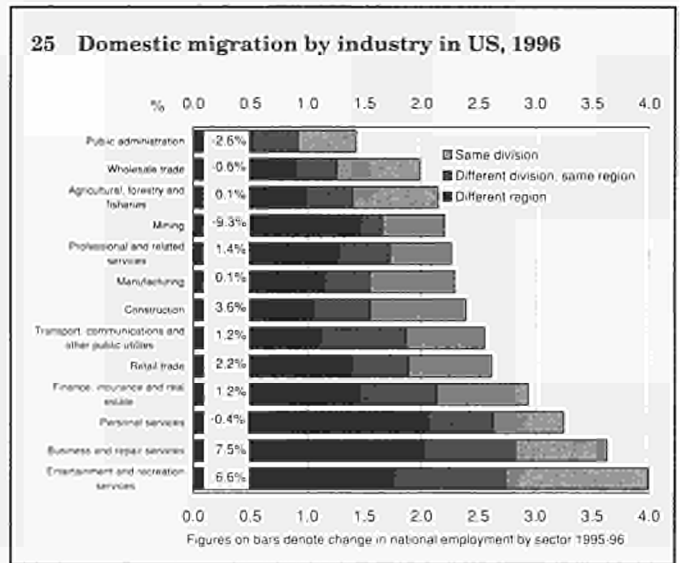
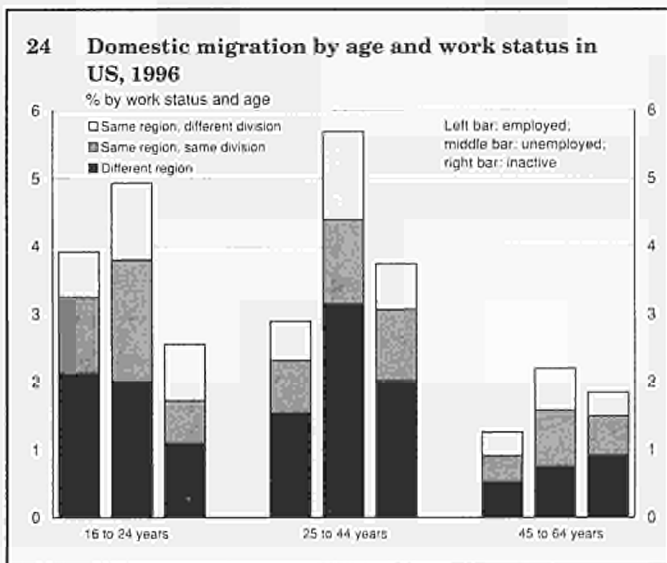
The same is true of different age groups. Some 6% of the unemployed aged 25 to 44 moved State in 1996 as compared with just under 3% of those employed and over 3% of those who were inactive (Graph 24). Although younger people tend to be more mobile as a group, a slightly lower proportion of the 16 to 24 year olds who were unemployed moved between States (5%) than in the older age group and these were only a little more likely to move than those in work (4%).

Migration by sector

The ability to move seems at least partly linked to the job that people do and the opportunities for employment in particular sectors of activity. The highest rates of mobility in the US are in expanding sectors, business and repair and entertainment and recreation services. In 1996, over 3½% of those working in each of these sectors moved State, which may well reflect the high rate of employment growth in both during the year (7%) (Graph 25). The scale of inter-State migration was lowest among those employed in the public sector (under 1½%), where employment fell by 2½%, and in wholesaling (2%), it fell by ½%.

Migration by education level

Migration also tends to be significantly higher among those with relatively high education attainment levels than with those with lower levels. In 1996, over 3% of

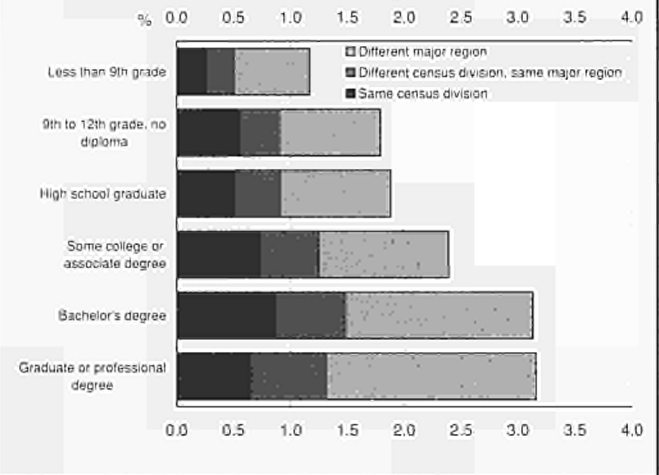


people of 25 and over who were university graduates moved between States as compared with only just over 1% of those with the lowest educational level (Graph 26).

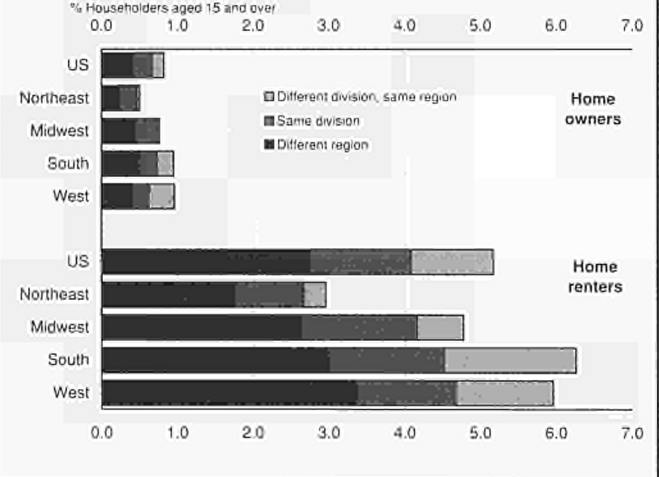
Migration by housing tenure

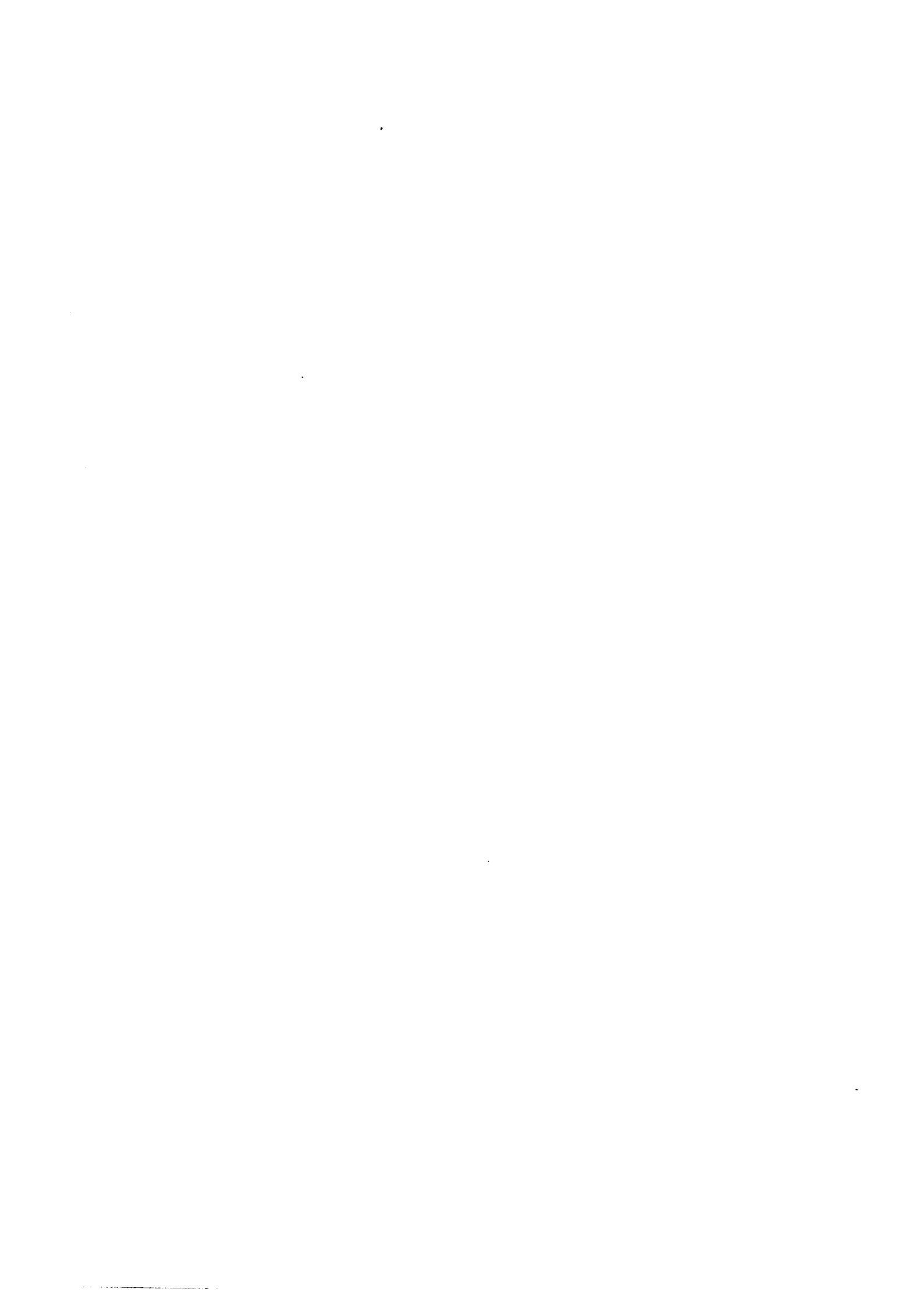
It is frequently argued that the difficulty of moving house is one of the main obstacles to labour movement between regions (see, for example, the *OECD Job Study* (Part 2, Chapter 6). This seems to be borne out by the US data. In 1996, people who rented accommodation were 6 times more likely to move State as home owners, just over 5% of the former moving as opposed to less than 1% of home owners (Graph 27). This, however, does not necessarily imply that the direction of causation runs simply from housing tenure to migration. It is almost certainly the case that a higher proportion of those most likely to move from one region to another would have opted to live in rented accommodation than those likely to stay put. In other words, the probability of moving influences the choice of housing just as the latter affects the ease or difficulty of so doing.

26 Population aged 25 and over who moved state by educational attainment in US, 1996



27 Domestic migration by household tenure in US, 1996





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