

## Abstract

This paper uses Labour Force and other national survey data to examine stock levels and changes in the stock of skills (educational and vocational qualifications) of the population over the period 1985-1996 for six European countries with particular reference to the low-skilled. National qualifications are classified using the International Standard Classification of Education (ISCED) levels 0-7. The low-skilled are defined as those who left education and training/gained no qualifications beyond the period of compulsory schooling.

All countries have reduced the proportion in the low-skilled group over the period 1985-1996; however, countries which already had the lowest levels of low skills (Sweden, Germany) made the fastest progress. Younger (25-28) populations are better qualified than the working-age populations. Considerable differences still remain between countries in stocks of skills in both the young (25-28) and working-age population. These differences are greater at the lower end of the ISCED scale (0/1/2) than at the higher end (ISCED 5/6/7).

In a number of countries (France, Germany, Netherlands, Portugal) higher level educational and vocational qualifications (ISCED 3 and above) were gained at a relatively late age (22-25). In Sweden and the UK only small proportions of the low-skilled gained further qualifications after the age of 21.

Proportions of low-skilled men and women in the working-age population have declined at similar rates in all countries but in Germany and the UK the proportion of women with low skills remains substantially higher. In France, Portugal and Sweden more women have a higher education (ISCED 5/6/7) than men. In Germany, the UK and the Netherlands the situation is reversed and the gap between men and women has remained largely unchanged over the period 1985-1996.

On the basis of the growth rates of the past ten years, France, the Netherlands, Sweden and Germany appear to be converging on similar skill profiles for the young (25-28) population in 2010 when 10 per cent or less will be in the low skills group. On present trends it will take considerably longer for the UK and Portugal to reduce the low-skilled group to the 10 per cent level.

**Growing Skills in Europe: the Changing Skill Profiles of  
France, Germany, the Netherlands, Portugal,  
Sweden and the UK**

**Åsa Murray and Hilary Steedman**

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Åsa Murray is at the Stockholm Institute of Education and Hilary Steedman at the Centre for Economic Performance, London School of Economics.

# **Growing Skills in Europe: the Changing Skill Profiles of France, Germany, the Netherlands, Portugal, Sweden and the UK**

**Åsa Murray and Hilary Steedman**

## **1. Aims of the Study**

This study examines the educational attainment of the population in six countries of the European Union (EU) with the focus on the low-skilled in the population. In all industrialised countries from the late 1970s onwards the low-skilled were increasingly likely to experience spells of unemployment. (OECD 1994a). In both the US and European economies the labour market is developing to the detriment of the low-skilled. In the less regulated US economy falling demand was reflected in falling real wages. In the more regulated European economies it is argued that the wages of the low-skilled were kept artificially high at a price which meant that demand fell and unemployment for these groups increased (OECD 1994b). Falling labour-market demand for the low-skilled is a major socio-economic problem and challenge for the countries of the European Union.

This paper forms part of a programme of research entitled 'New job-skill needs and the low-skilled' the NEWSKILLS project financed under the Targeted Socio-Economic Research (TSER) programme of DGXII of the European Commission. The paper aims to establish the extent of low skills among the population of six European Union countries to chart the progress in each country in reducing the stock of low skills in the population over the period 1985-1996/7 to compare proportions with low skills in the same birth cohort across countries at two points during the skill acquisition process chart gender differences in skill acquisition over time in the countries examined here.

## **2. Measuring Low Skills**

The most commonly used indicator of low skills for international comparisons is highest stage of education or education and training completed. While these definitions of skills cannot claim to capture the reality of the whole range of skills that an individual brings to the labour market, they are the only ones available for the purpose of this study and they have some strengths. Information on educational level or qualifications is collected annually or biennially in almost all industrialised countries as part of a wider survey which asks questions about earnings, employment history, training, etc. This means that the relationship of low skills so defined to other characteristics of labour markets can be rigorously tested over a prolonged time period.

Stages of education completed or certificates awarded are also important labour market signals in their own right, used by employers and potential employees to convey information about skills and knowledge attained. This makes educational/training level a relevant measure to use in relation to labour market participation. Finally, bringing about change in educational level/qualifications lies within the scope of government policy. Measures to reduce the proportion of individuals at different levels of the education and training system can be clearly formulated and their success monitored.

However, there are still unresolved problems and weaknesses in the survey methods used

in the different EU countries to construct the educational level indicator which must be borne in mind when making international comparisons of this sort. These problems and weaknesses were also investigated as part of the NEWSKILLS project and are set out in full in a companion paper (Steedman 1998a). These difficulties arise essentially from different criteria used by national surveys when determining an individual's highest level of qualification. In some EU countries only outputs (qualifications) are used to measure educational experience. In others, only inputs (enrolments) are used. In yet others, input measures are used at some levels of the education process and output measures used at other levels.

In this paper, where possible, we have tried to adjust for known quality differences arising from measurement methods when allocating each country's educational level indicators to the UNESCO International Standard Classification of Education (ISCED) scale for purposes of cross-country comparison. Steedman (1998b) tests the robustness of this classification to the ISCED levels against performance on the single measure of skill (literacy) used in the International Adult Literacy Survey (IALS). Set against this literacy measure the ISCED categories look reasonably homogeneous across countries. The EU countries which participated in the IALS survey are Germany, Netherlands, Sweden, Britain, Ireland and Belgium. In those countries we identified the proportion of the 26-35 year old age group that was classed to ISCED 0/1/2. We then found that of this group in these EU countries between one-half and two-thirds are at IALS (prose) level 1/2. For the group of working age (16-65) the differences are somewhat greater. But if we exclude the one outlier — Sweden — we again find that, on the measure used above, the range of percentage scores is fairly narrow — between two-thirds and three-quarters of all at ISCED 0/1/2 are also at IALS 1/2.

Table 1 below sets out the qualifications allocated to the four ISCED-levels in the six countries compared. The low-skilled group is defined as the group having as its highest qualification completed lower secondary education. This choice of cut-off point for the definition of low skills is based on accumulated evidence on mean relative earnings and mean unemployment rates of groups at this level of qualification across countries. When these are compared, in every country those persons who fail either to complete upper secondary education or to acquire post-compulsory vocational qualifications have distinctly lower earnings and higher unemployment rates than those with upper secondary or higher education (OECD 1994). In this paper we shall refer interchangeably to the low-skilled group, 'individuals at ISCED 2 and below' or individuals without general or vocational upper secondary education.

**Table 1**  
**Principal education and initial training qualifications grouped by ISCED level — France, Germany, Netherlands, Portugal, Sweden, UK**

Level	France	Germany	Neth'lands	Portugal	Sweden	UK
ISCED 5/6/7	Higher Degree <i>Licence</i> BTS/DUT or equivalent	All first and higher degrees <i>All Meister and Techniker</i>	University 3 years or more HBO Higher professional ed	University (1 <sup>st</sup> degree) Bachelor	Tertiary (post secondary) shorter and longer than 3 years	All first and higher degrees. All teaching, nursing qualifications. HNC/HND
ISCED 3	<i>Baccalauréat</i> , BT CAP, BEP	<i>Abitur</i> <i>Fachhochschulreife</i> . All apprenticeship passes or equivalent	VWO Pre-university ed HAVO Senior general secondary ed MBO Secondary vocational education	Intermediate courses Upper secondary Secondary (vocational)	Upper secondary education, academic and vocational programme 2-3 years	1 or more A-level passes, GNVQ 3 and equivalent, NVQ 3 and equivalent. Trade apprenticeship GNVQ 2 or equivalent NVQ2 or equivalent
ISCED 2	<i>Brevet</i> (all series)	Leaving certificate of the <i>Realschule</i> or equivalent. Leaving certificate of the <i>Hauptschule</i>	MAVO Junior general secondary ed VBO Pre-vocational education	Lower secondary Preparatory	9-year compulsory school	1 or more O-level/ GCSE passes, 1 or more CSE passes. All other qualifications
ISCED 0/1	CEP, No qualifications	No qualifications	Primary Education only	Primary Less than primary	Elementary school shorter than 9 years	No qualifications

## Interpreting Data

Stock data allow us to look back and observe trends over time. Changes in stocks of qualifications in the population over time are the outcome of a number of processes; first, inflows and outflows of individuals from the population, second, improvement in the qualification levels of those who have completed their initial education and training (Green and Steedman 1997). Flows of qualifications into the population are largely but not exclusively the result of young people completing their initial education and training. Increasingly, the initial qualification process extends long after the age at which schooling is no longer compulsory so that, for example, in a



country such as Germany where the age of graduation is exceptionally late, even the 25-28 year old population does not include all initial qualifications acquired by a cohort. In Sweden, participation in adult education is high relative to other EU countries, and is undertaken for recreation as well as to improve qualifications. Thus, while the educational level of most people is usually determined by the time individuals reach their late twenties, for some the level may change at a later age or over the whole life-time. Greater emphasis is now placed on the concept of 'lifelong learning' by national governments and by the European Commission; in future it will be necessary to find ways of monitoring the outcomes of lifetime learning as well as stocks of skills and knowledge accumulated in the course of initial education and training (European Commission, 1995).

Demographic factors also influence the change that takes place in the qualification levels of a population over time. If, as has been the case in Germany and in the UK, there has been a sharp decline in the size of the younger cohorts born since 1970 relative to the older ones then numbers of newly qualified individuals at a given level may be similar to numbers exiting from the population. Consequently, high qualification rates of the younger cohorts will not translate into substantial growth in the qualifications of the population as a whole.

Flows into and out of the labour force may also be the result of immigration and emigration of adults. Depending on the country's immigration policy, these flows may or may not add to the stock of skills.

Changes in the qualification of the population are thus not only the result of younger better qualified individuals joining the population of working age, but also the result of individuals gaining further qualifications after entering the labour force. It is beyond the scope of this study to conduct an analysis designed to separate out the two effects. However, we can be fairly confident that in countries where qualification levels have been improving from initially very low levels, a very high proportion of growth in qualification levels will be the result of older less-qualified individuals retiring and younger better-qualified individuals taking their place. This is the case in all European countries examined here.

### 3. The Population of Working Age

#### The population of working age: low skills (ISCED 2 and below)

There is very considerable variation between countries of the European Union in proportions of individuals with qualifications/education which does not go beyond the end of compulsory education.

**Table 2**  
**Population of working age (16-64) at < ISCED 3**  
**France (1990) 1996, Germany (1985) 1995, Netherlands (1990) 1996, Portugal (1985), 1997, Sweden (1985) 1996, UK (1985) 1996**

	per cent					
	France	Germany	N'lans	Portugal	Sweden	UK
< ISCED 3	(51) <b>43</b>	(35) <b>22</b>	(48) <b>41</b>	(87) <b>77</b>	(42) <b>28</b>	(65) <b>52</b>

Source: See Appendix

Table 2 shows that proportions at or below ISCED 2 range from around one-quarter of the population of working age in Germany and Sweden to around three-quarters of the population in Portugal. In the UK the proportion is just over half and France and the Netherlands have similar proportions — around 40 per cent. In all countries, these proportions have been falling over the period considered here — roughly 1985-1996. Lack of consistency in the classification of qualifications before 1990 means that for France and the Netherlands stocks of qualifications for 1996 cannot be compared over time prior to 1990. However, for the other countries the comparator figure — in brackets in Table 2 — is for approximately ten years earlier. Table 3a below shows for all the countries for which data is available the average annual decline in the percentage of the population at or below ISCED 2 while Table 3b does the same for all countries from 1990/91.

**Table 3a**  
**Countries ranked by average annual change in percentage of working-age population at or below ISCED 2 1985- 1995/6/7**

Sweden	-1.3
Germany	-1.2
UK	-1.2
Portugal	-0.8

**Table 3b**  
**Countries ranked by average annual change in percentage of working-age population at or below ISCED 2 1990/91- 1995/6/7**

UK	-1.6
France	-1.4
Netherlands	-1.3
Sweden	-1.2
Germany	-0.9
Portugal	-0.8

Generally, in Europe in the post-war period, barriers to post-compulsory education have been progressively removed. Where a high proportion of the population is low-skilled it might be thought relatively easy to reduce that proportion quickly since many in that group would have natural abilities which would place them in the upper half of the ability range. Table 3a reveals, perhaps rather surprisingly, that over the longer ten-year period the countries which already had the lowest proportions of the population at or below ISCED 2 — Germany and Sweden — still made fast progress in reducing the proportions at that level. However, over the shorter year period from 1990 onwards it can be seen that the rate of change in Germany slows while in the UK it increases. The UK has made greater progress in reducing low skills in the working population since 1990 than during the earlier period while Sweden has maintained almost the same rate of change over both periods. France and the Netherlands can only be compared since 1990. Both show a rapid decline in low skills. For Portugal, an important indicator is the extent to which the group with primary and less than primary education (ISCED 0/1) has been reduced. Over the twelve-year period Portugal reduced the ISCED 0/1 group (primary and less than primary education) by 10 per cent from 55 per cent in 1985 to 45 per cent in 1997.

## The population of working age in 1995/1996: qualifications at all levels

Figure 1 (see pp.14-15) shows the qualification profiles across all four ISCED-levels in France, (1996) Germany (1995) the Netherlands (1996) Portugal (1996), Sweden (1996) and the UK (1995). Comparing these, we find that Germany and Sweden have similar profiles. In these two countries most people have an upper secondary education or a vocational education after compulsory school (ISCED 3) or a higher education (ISCED 5/6/7). A somewhat greater spread of educational qualifications are found in Sweden than in Germany as a greater proportion of the population in Sweden has less than 9 years of compulsory education and a greater proportion also have higher education (ISCED 5/6/7) than in Germany. A majority of the population of working age also has an upper secondary education or a vocational education or a higher education in France and the Netherlands (63 per cent in France and 59 per cent in the Netherlands). In Portugal and in the UK a majority of the population aged 16-64 lacks an upper secondary or a vocational education.

We have seen from Table 2 that the proportion of the population of working age that can be considered to be low-skilled varies to a great extent between countries. By contrast, the proportion of the population with higher education (ISCED 5/6/7) is very much the same in six countries with the exception of Portugal where higher education is less frequent. Around 20 per cent of the population has a higher education in five of the countries compared while in Portugal the figure is 6 per cent. Thus, with regard to higher education, the qualifications profiles do not differ very much between five of the six compared countries but they differ substantially at the lower end of the educational attainment scale.

## 4. The Population Aged 25-27/8

### The population aged 25-27/8: low skills (ISCED 2 and below)

Table 4 shows the proportion of the population aged 25-27/28 at < ISCED 3 for the six EU countries. For all countries the young age group is better qualified than the older age group. However, the UK shows only a small improvement. The relative positions on the low skills ranking seen in Table 2 are broadly similar in Table 4. Only one country, France, has succeeded in improving its rank position when the younger age group is considered relative to the whole population.

**Table 4**

**The proportion of the population of age 25-27/28 at < ISCED 3**

**France (1990) 1996, Germany (1985) 1995, Netherlands (1990) 1996, Portugal (1985) 1997, Sweden (1985) 1996, UK (1985) 1996**

	per cent					
	France	Germany	N'lands	Portugal	Sweden	UK
< ISCED 3	(32) <b>24</b>	(18) <b>13</b>	(34) <b>26</b>	(78) <b>61</b>	(22) <b>13</b>	(56) <b>46</b>

Source: See Appendix

Table 4 shows that great variation in proportions at the lowest skill levels are also found

among young people. Germany and Sweden have only small proportions (13 per cent) at ISCED 0/1/2. France and the Netherlands have about one in four of 25-28 year olds lacking further education but in the UK almost half and in Portugal almost two-thirds of 25-27 year olds lack further education. From this we can conclude that failure to progress to post-compulsory education is not just the result of formal barriers to mass participation within education systems. This was undoubtedly the case for the older populations in all countries. But younger age groups have not encountered these formal barriers to progression beyond compulsory education and we must look elsewhere — to informal barriers within education and to factors outside education for explanations of low participation rates.

### **The population aged 25-27/8 in 1995/6: qualifications at all levels**

Figure 2 (see pp.16-17) shows the qualification profiles across all four ISCED-levels in France, (1996) Germany (1995) the Netherlands (1996) Portugal (1996), Sweden (1996) and the UK (1995). Even for this young age group, the distribution of qualifications by ISCED-level between the six countries varies and in broad outline reproduces the profiles for the population of working age 16-64.

Looking at all qualification levels, Germany and Sweden have similar qualification profiles (Figures 2b and 2e). Young people with less than nine years of elementary education (ISCED 0/1) are almost non-existent and young people with only a nine-year compulsory education (ISCED 2) are also rare in both countries (less than 15 per cent). A majority of young people (73 per cent in Germany and 58 per cent in Sweden) have a qualification level of ISCED 3 (upper secondary or vocational education) in these countries. In Germany a majority of young people with ISCED 3 have a vocational education through apprenticeship and in Sweden a two-year vocational upper secondary education is most common in this group (OECD1995; Murray 1997).

The Netherlands also has a qualification profile very much like Sweden. Almost every second young person of age 25-28 in the Netherlands has an upper secondary or a vocational education (48 per cent) and only a small proportion are without qualifications (ISCED 0/1). Also in France almost every second young person aged 25-28 (48 per cent) has an upper secondary or a vocational education. However, young people without qualifications (ISCED 0/1) are more common (19 per cent) than in Germany, Sweden, the Netherlands and the UK. In the UK in 1985 only 27 per cent of 25-27 year olds have ISCED 3 which is almost as small proportion as in Portugal (25 per cent).

The proportions of young people aged 25-27/8 with a higher education vary less between the six countries than the proportions of young people at the lower end of the ISCED scale, just as was found in the total population of working age. In France and Sweden 29 per cent of young people have a higher education and in the Netherlands and the UK 25 and 23 per cent have a higher education. In Germany and in Portugal higher education is not as common as in the other countries. In Germany 15 per cent and in Portugal 13 per cent have a higher education.

Considering the large proportion of 25-28 year olds that have ISCED 3 in Germany it is rather surprising that only 15 per cent of 25-28 year olds have a higher education. One explanation is of course that most young people with ISCED 3 have a vocational education which prepares them for the labour market and not for higher education. Another is that it takes a long time to get a higher education in Germany. Not all students have finished their university examination at the age of 25-28. In fact, if we analyse the population aged 29-38 we find that a much more respectable proportion — 21 per cent — has a qualification above ISCED 3. Because higher education evidently requires such a long period of study, it is a considerable economic investment for young people in Germany to go to university. This may prevent some young men and women

from continuing to university after upper secondary school in Germany and helps account for the somewhat lower proportions in Germany with higher education.

### **Recent changes in the composition of the stock of skills: a comparison of 25-27/8 year olds in the mid 1980s and mid 1990s**

Most of the improvement in skill levels in the population as a whole results from improvements in the education of young people reaching working age. Raising skills in the younger population is therefore an important task for the countries under investigation. By comparing the skills profile of 25-27 (or 25-28) year olds in the 1980s with those of the same age ten years later in the 1990s, we can see more clearly the contribution that each country's initial education and training system has made to raising skill levels and reducing the proportion of those with low skills over a ten-year period. It must be recalled, however, that with respect to education policy, the periods being compared in each country are the years in the 1960s and 1970s when these younger groups were of school age. Figure 3 (see pp.18-19) shows the qualification profile of the 25-28 year old population in Germany and the 25-27 year old population in Portugal, Sweden and the UK in the 1980s and ten years later in 1990s. For Germany and the UK data is for 1985-1995; for Sweden and Portugal data is for 1986-1996. The profiles of France and the Netherlands are from 1990 and six years later 1996.

Figure 3 shows that young people who were educated in the 1980s were better qualified in all the countries compared than those educated ten years earlier. The greatest change has taken place in Portugal where young people at ISCED 0/1 have fallen by 17 per cent. There has been a corresponding increase in the proportion of young people with education beyond compulsory school (ISCED 3 and 5/6/7). The UK has the second largest change over the ten years with a reduction of young people with ISCED 0/1 of 13 per cent which has resulted in an increase in young people with ISCED 2 and 5/6/7. The reduction of young people with no qualification in Portugal has been in part the result of a longer period of compulsory education which now incorporates a lower secondary education (ISCED 2). However, in the UK the increase at ISCED 2 is the result of more pupils being entered for and gaining academic and other qualifications at age 16. As a result the 0/1 category — those with no qualifications — has been considerably reduced.

Changes in the qualifications of young people have been smaller in the other European countries where low levels of education were less common in the 1980s. The increase in qualifications among the young population in France, the Netherlands and Sweden has mainly resulted in a greater proportion of young people with higher education (ISCED 5/6/7). An increase in young people with an upper secondary or a vocational education can only be found in Germany and Portugal and to a very small extent in the Netherlands.

To summarize, a reduction of low skilled young people has taken place in all six European countries which have been compared during the investigated ten- and six-year periods. The greatest changes have been among young people with no qualifications (ISCED 0/1). This group has been reduced considerably in Portugal, and the UK, countries in which this group was large in the 1980s. The proportion of young people with higher education has also increased in all countries except in Germany where it has been almost unchanged. Instead the proportion of young people with an upper secondary or a vocational education has grown in Germany.

## **5. Improvements in Qualification Levels**

### **Progress of the 1990 19-21 year old cohort at age 25-27/8**

Until now we have examined qualification levels at different points in time. We have seen changes in corresponding age-groups over time and noted how qualification profiles differ between countries. However, we have not observed the dynamics of this process in any detail. We have not studied the flows of students in the educational system. The best way to study the flows is to use longitudinal data, as the same individuals are followed over a certain time. However, stock data does allow us to look at two randomly drawn samples from almost the same population at different points in time. We are able to do this for the six investigated countries here.

The qualification levels of young people age 19-21 in 1990 (1989) and six years later when this group of the population reached the age of 25-27 (28) were investigated. The results are shown in Figure 4 (see pp.20-21).

### *Sweden*

Only a further 6 per cent of the Swedish 19-21 year olds with only compulsory education (ISCED 2) had obtained an upper secondary qualification after age 21. This indicates that it is rather unusual in Sweden to obtain these qualifications after leaving the full-time initial schooling system. Proportions at ISCED 2 and below declined by 27 per cent. But it must be recalled that the proportion of 19-21 year olds in Sweden with low level (ISCED 0/1/2) qualifications is already very low. As in other countries proportions of the age group obtaining higher education have increased in recent years; an increase in the proportion of young people with a higher education should give a corresponding reduction of the proportion of young people with an upper secondary education (ISCED 3) if the flows from lower levels are small. This is the case for Sweden.

### *The UK*

In the UK the proportion of young people without qualifications (ISCED 0/1) or with ISCED 2 has decreased during the six-year period but the decrease is small both absolutely and relative to the other countries considered. Only 9 per cent of those at ISCED 2 or below at age 19-21 have obtained an ISCED 3 qualification by the age of 25-28. Because of this small flow from the lower levels into the ISCED 3 category and the considerable increase in the proportion of young people with a higher education over the six-year period there is a net decline in numbers at the upper secondary education (ISCED 3) level.

### *France and the Netherlands*

In France and the Netherlands significant proportions of young people with only compulsory education or less (ISCED 0/1 or 2) have got an upper secondary education (ISCED 3 or more). The ISCED 0/1 or 2 group declined by 51 per cent in France and by 43 per cent in the Netherlands. In France 24 per cent and in the Netherlands 20 per cent of those who were at ISCED 0/1 or 2 age 19-21 had obtained an upper secondary education six years later. As in all other countries, in France and the Netherlands significant proportions qualified at the tertiary level by age 28. However, flows out of the ISCED 3 category to higher education were nearly compensated for by inflows from the lower levels.

### *Portugal and Germany*

In Portugal considerable progress was made after age 21 in reducing numbers with only

compulsory education. Proportions at ISCED 2 decreased by 25 per cent while the proportion at ISCED 0/1 increased very slightly (possibly the result of an inflow of older immigrants to school system as in Sweden). In Germany also there was a large fall in numbers at ISCED 2 (68 per cent decrease) while the ISCED 0/1 category virtually disappeared. In both Germany and Portugal proportions of young people with an upper secondary education (ISCED 3) increased between ages 21 and 28 — by 27 per cent in Germany and 20 per cent in Portugal.

In short, around one-quarter of low-skilled young people of age 19-21 (ISCED 0/1 and 2) gained an upper secondary qualification in France, Germany, the Netherlands and Portugal by age 25-27/8 (20-27 per cent). A smaller proportion of the low-skilled gained a further education in the UK and Sweden (9 per cent in the UK and 5 per cent in Sweden). In the UK many young people leave school after compulsory education — or enter post-compulsory education and fail to qualify. This explains the low proportion that attained a further education during the investigated six-year period. In Sweden the proportion of 19-21 year olds with an upper secondary or a vocational education (ISCED 3) was already quite large and the proportion with low education (ISCED 0/1 or 2) was already quite small in 1990. One explanation for this is that grade-repeating is more or less common in the investigated countries, but not in Sweden. Thus, most young people go through their school years without delay. Another explanation is that there are no formal examinations either after compulsory or upper secondary school in Sweden. There are only national tests to standardise the teacher marks. When pupils have finished compulsory or upper secondary school they are classified to ISCED 2 (compulsory school) and ISCED 3 (upper secondary school) respectively without much delay. In other European countries grade repeating and examinations prolong the number of school years until young people have got their educational credentials.

Another reason for the variation in the proportion of young people who have gained an upper secondary education during the six-year period is how attractive an upper secondary or a vocational education is *per se*. Is further education only a means to a higher education or does it have a value of its own? In the UK but also in Portugal the proportion of young people with an upper secondary or a vocational education (ISCED 3) is not much larger than the proportion of young people with a higher education in contrast to the other four countries where the proportion of young people is considerably greater than the proportion with higher education. In Germany this difference is most apparent. This indicates that proportions proceeding to ISCED 3 and not continuing to higher education depend upon the extent to which ISCED 3 qualifications are valued on the labour market in their own right.

## 6. Qualifications of Men and Women

Until now we have only studied the qualifications of the total population and of certain age groups. We have, however, not examined men and women separately. One question is the extent to which men and women have the same level of qualifications. Another question is how the qualification profile has developed for men and women in the compared European countries. The development of the low-skilled group in the population of working age by gender is shown for some recent years in Figure 5 (see pp.22-23) for the six compared European countries. In most countries proportions of low-skilled are very much the same for men and women. But in Germany there was a skills gap in favour of men of the order of 20 percentage points in 1985 narrowing to around 10 percentage points in 1995. In the UK the gap in favour of men was around 10 percentage points in 1985 and had not narrowed significantly by 1995. In France there were equal proportions of low-skilled men and women. In Portugal and Sweden there were slightly lower proportions of low-skilled women than men.

In Figure 6 (see pp.24-25) the top end of the ISCED-scale (ISCED 5/6/7) is studied for men and women. The differences in the proportion of highly-qualified men and women were small in all countries except Germany and the Netherlands where the male advantage is 10 and 5 per cent respectively. Men also had a slight advantage over women in the UK. In France a somewhat larger proportion of women than men has a higher education. This difference has also been widening slightly. In Sweden a widening gap between men and women is also found; a greater proportion of women than men having a higher education. In Portugal the development has been parallel for men and women during the investigated period.

Comparing men and women at both ends of the ISCED-scale there are only slight differences in their respective levels of educational attainment in France, Portugal and Sweden. A common trend for these three countries is that women of working age are increasingly likely to be better educated than men. In Germany, the Netherlands and the UK the reverse is the case and men are more educated than women. The gap between men and women is largest in Germany at both ends of the ISCED-scale. How can this be explained? One explanation is perhaps that the apprenticeship system which has a long tradition in Germany attracts more men than women or it offers more opportunities for men than women. Skilled workers are usually men. For instance in a Swedish study of young women with a traditional male vocational education it was found that these women did not end up as skilled workers as often as young men with the same education did but more often as an unskilled worker or a non manual worker (Hällér, 1992). Another explanation is that higher education takes a longer time in Germany than in many other countries in Europe. Women may by tradition hesitate more than men to invest in a long and expensive higher education.



## 7. Summary and Conclusions

Qualifications profiles vary between the six compared European countries and differences are greater at the lower end of the ISCED-scale than at the top end of the scale. A common trend for the six countries is that the average educational attainment level of the population of working age has improved. In all countries the low-skilled group (ISCED 2 and below) has declined over recent years but faster in some countries than in others.

Comparing the qualifications profile of young people (25-27/28 year olds ) over a recent period, we can get a picture of the most recent changes in the qualifications of young people in selected EU countries. The greatest change has taken place in Portugal where the proportion of 25-27 year olds with ISCED 0/1 was reduced by 17 per cent from 1986 to 1996. A great change has also taken place in the UK where the proportion of 25-27 year olds with ISCED 0/1 decreased by 13 per cent. The proportion of young people with higher education has also increased in all countries.

The age at which individuals move from the lowest skill levels was studied by comparing the skill profile of samples taken from a single age cohort ( 25-27/28 year olds compared with 19-21 year olds six years earlier). This comparison showed that in France, Germany and the Netherlands a considerable proportion of young people with low skills (ISCED 0/1 and 2) at age 19-21 had obtained higher level qualifications by age 25-27/8. In the UK and Sweden, by contrast, only small proportions of 19-21 year olds improved their qualification levels by age 25-27/8. In Sweden only a small proportion of the 19-21 year olds were at ISCED 0/1/2 compared to the other five countries, as most young people have already finished their upper secondary or vocational education by age 21. But this was not the case for the UK where half the age group remained at the lowest skill levels at age 25-27/8. Comparing the skill profiles of men with those of women of working age we found that in the UK, the Netherlands and Germany men were better qualified than women, but in France, Portugal and Sweden the reverse was the case. Differences in the proportion of low-skilled men compared with women were small in all countries except Germany and the UK. Differences in the proportions of men with a higher education compared to women were small in all countries but here again, Germany was the exception — there was a 10 per cent gap in Germany in favour of men and this gap remained constant over the ten year period.

## 8. Prospective

If the tendencies of the last ten years continue, the skill profiles of the population of working age will become more alike in the six European countries we have studied. In all countries the low skills group is declining. It seems likely that those countries where this group is already small (Germany, Sweden) will in future reduce low skills at a slower rate than countries where there are high proportions of low skills (UK and Portugal). We therefore appear to be witnessing a limited process of convergence. We consider it unlikely that these two countries will move to a skill profile like that of Germany with a majority of the population having an upper secondary or a vocational education, as the proportion of young people with this qualification level has hardly increased at all during the last ten years in the UK. In Portugal the proportion at ISCED 3 has increased less than the proportion of young people with higher education.

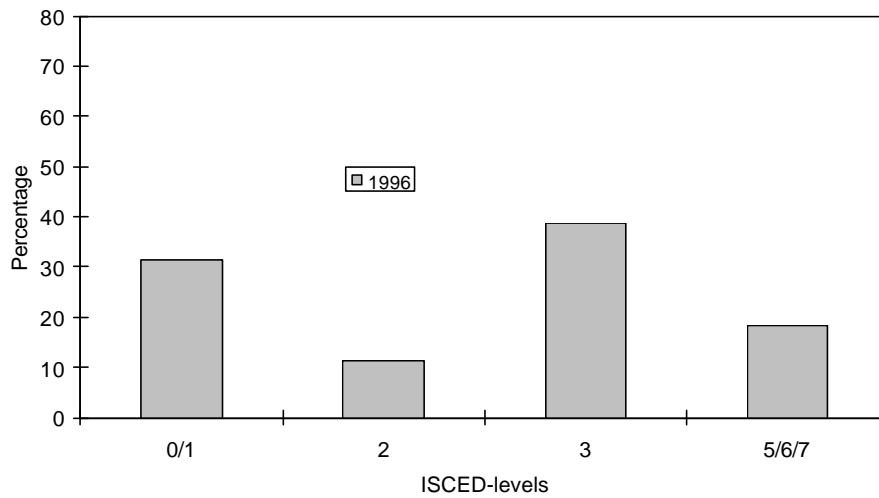
Looking ahead to the year 2010 and basing our predictions on recent growth rates for the young (25-27/28) age groups, France, the Netherlands, Sweden and Germany seem to be moving towards similar skill profiles. There will be few or no young people without upper secondary

education and a growing number of young people will obtain higher education qualifications. Despite Portugal's recent rapid growth in skill levels in the young age group, the low skill group will still account for around two-fifths of all 25-28 year olds in the year 2010 on present trends. UK progress in reducing the low skill group has been less spectacular than that of Portugal and the UK can expect to have around one fifth of the young age group at the ISCED 0/1/2 level by the year 2010 on present trends. We can thus expect to see substantial differences persisting over the medium term unless greater efforts are made to target the low skill group in Portugal and in the UK.

# Figure 1: Qualification levels of the population aged 16-64

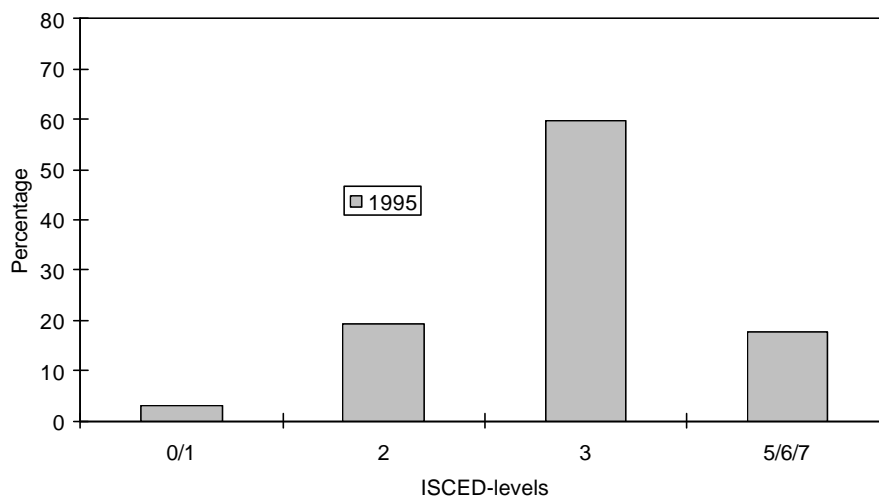
## Figure 1a

Qualification levels of the population aged 16-64 **France** 1996



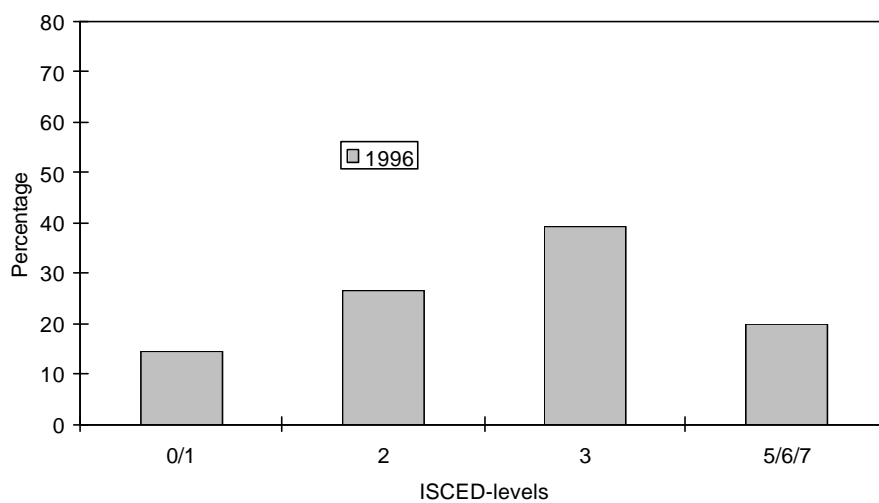
## Figure 1b

Qualification levels of the population aged 16-64 **Germany** 1995

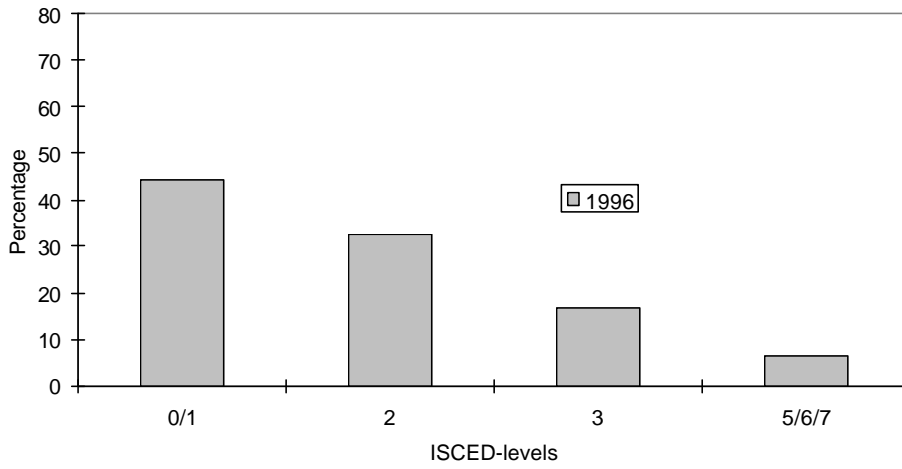


## Figure 1c

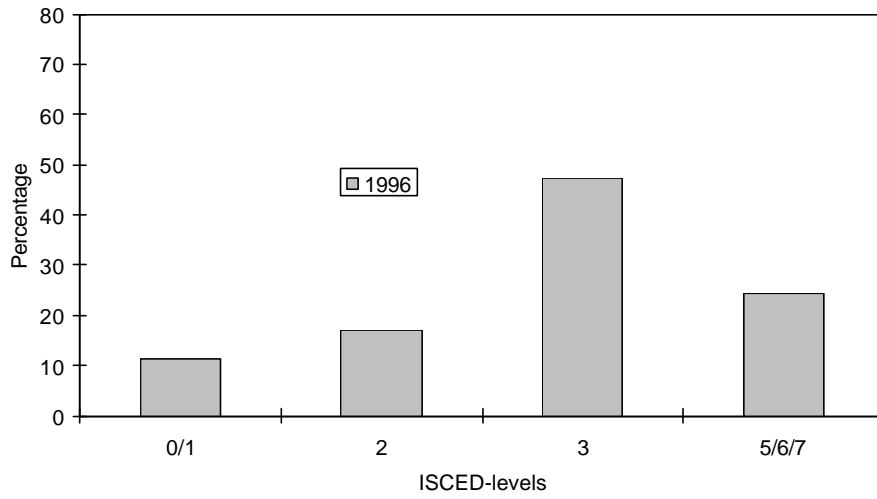
Qualification levels of the population aged 15-64 **Netherlands** 1996



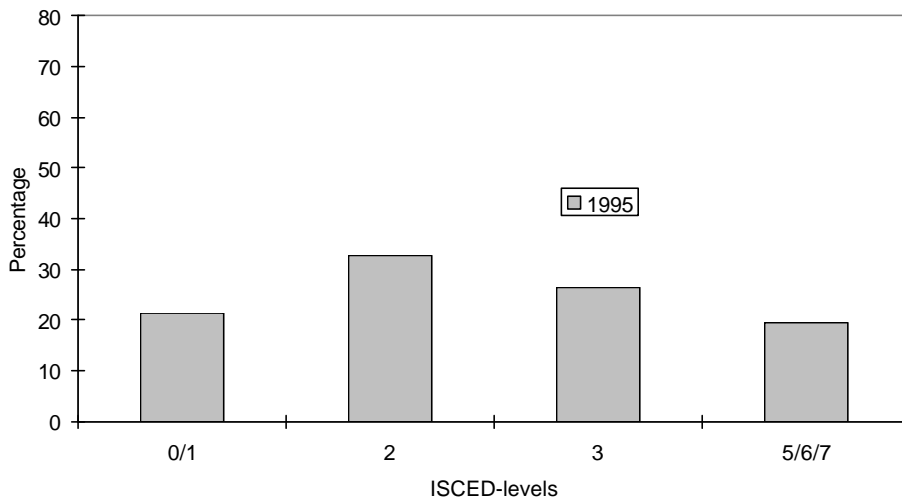
**Figure 1d**  
Qualification levels of the population aged 16-64 **Portugal** 1996



**Figure 1e**  
Qualification levels of the population aged 16-64 **Sweden** 1996



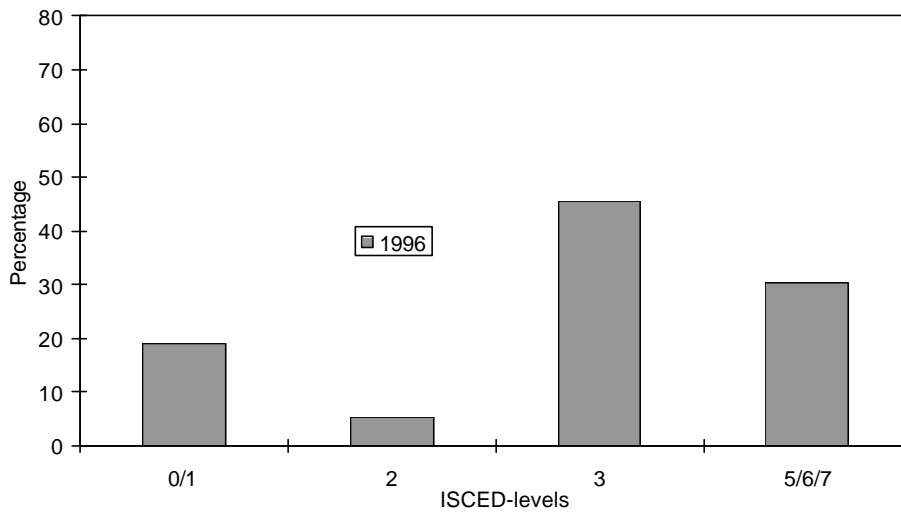
**Figure 1f**  
Qualification levels of the population aged 16-64 **UK** 1995



## Figure 2: Qualification levels of the population aged 25-27/28

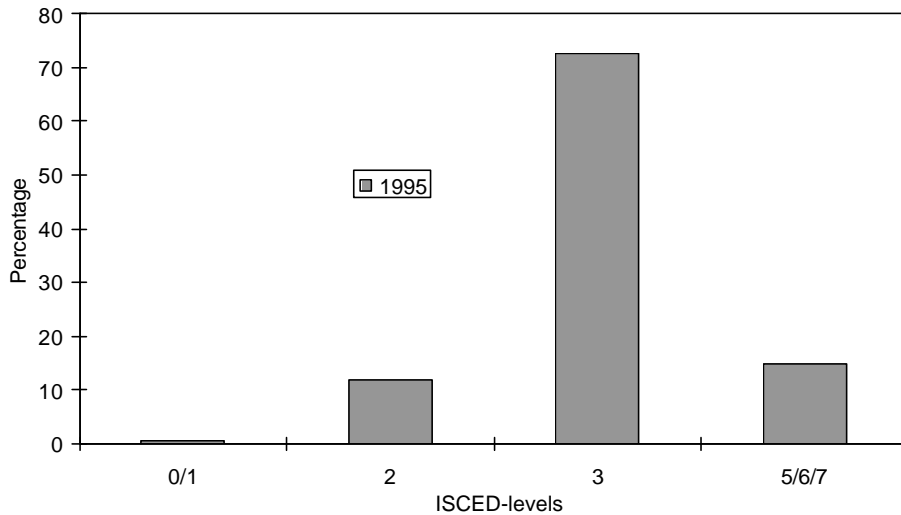
**Figure 2a**

Qualification levels of the population aged 25-28 **France** 1996



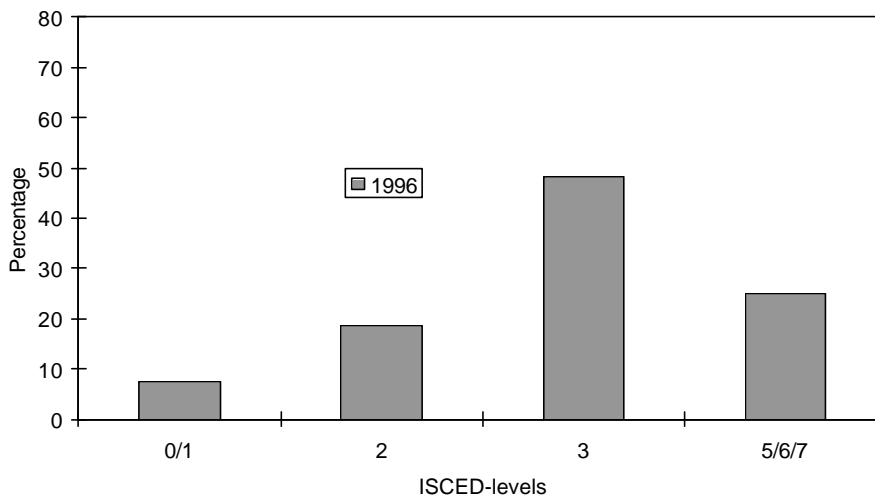
**Figure 2b**

Qualification levels of the population aged 25-28 **Germany** 1995

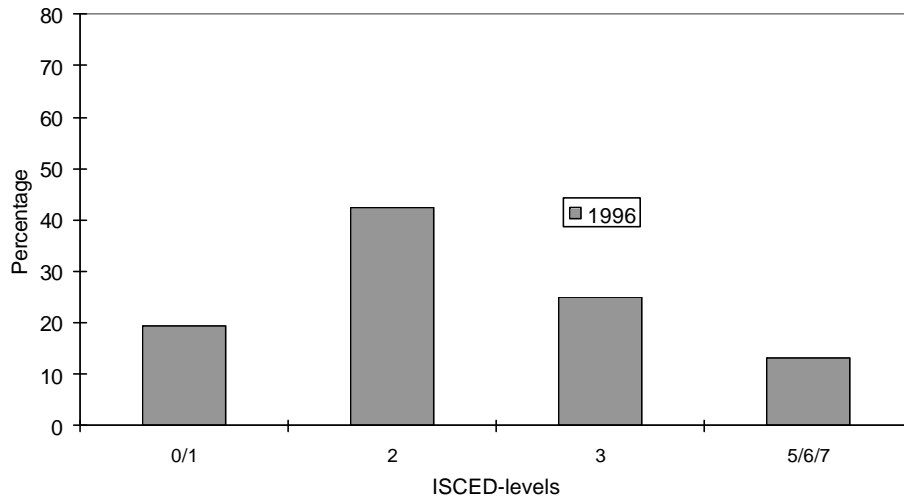


**Figure 2c**

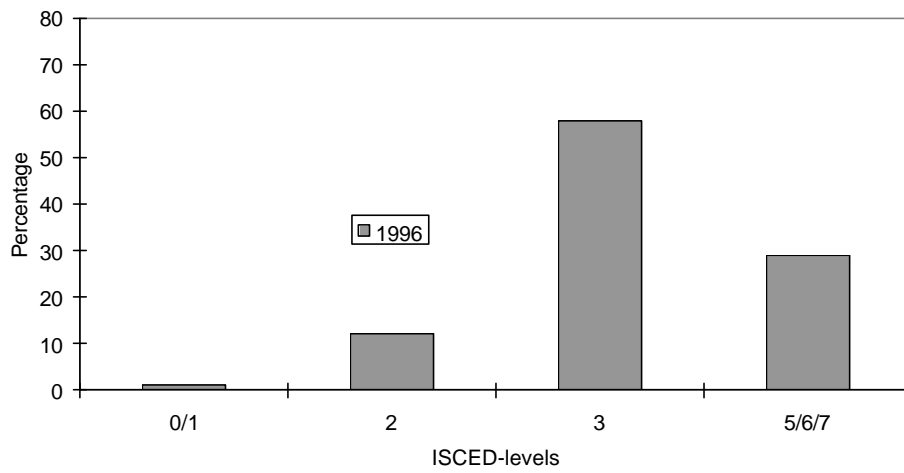
Qualification levels of the population aged 25-28 **Netherlands** 1996



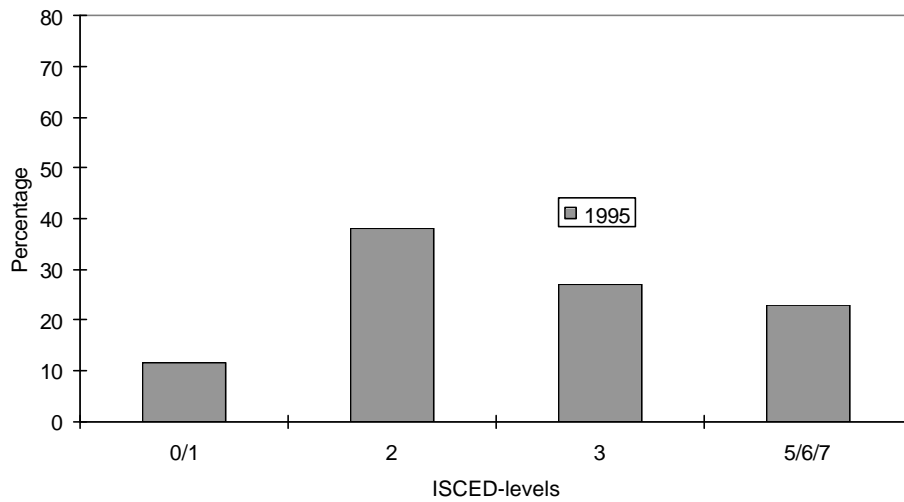
**Figure 2d**  
Qualification levels of the population aged 25-27 **Portugal** 1996



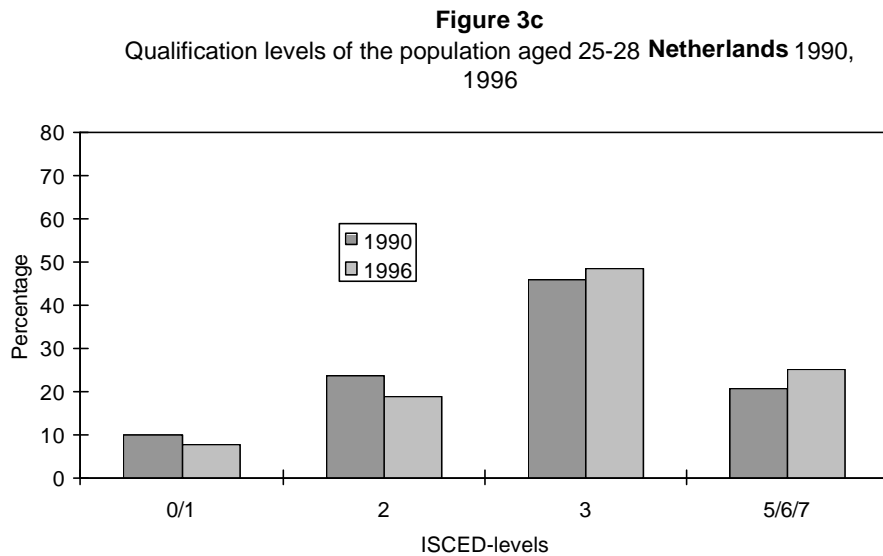
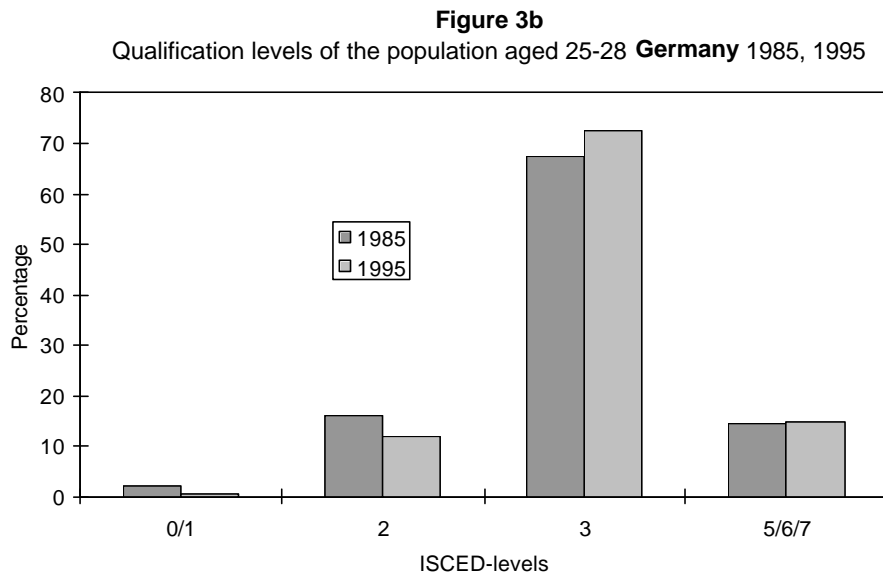
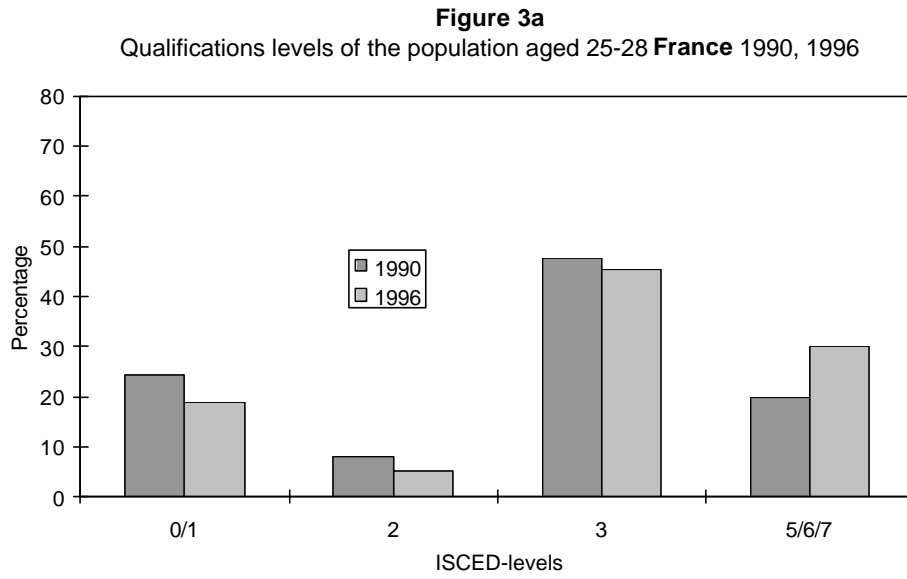
**Figure 2e**  
Qualification levels of the population aged 25-27 **Sweden** 1996



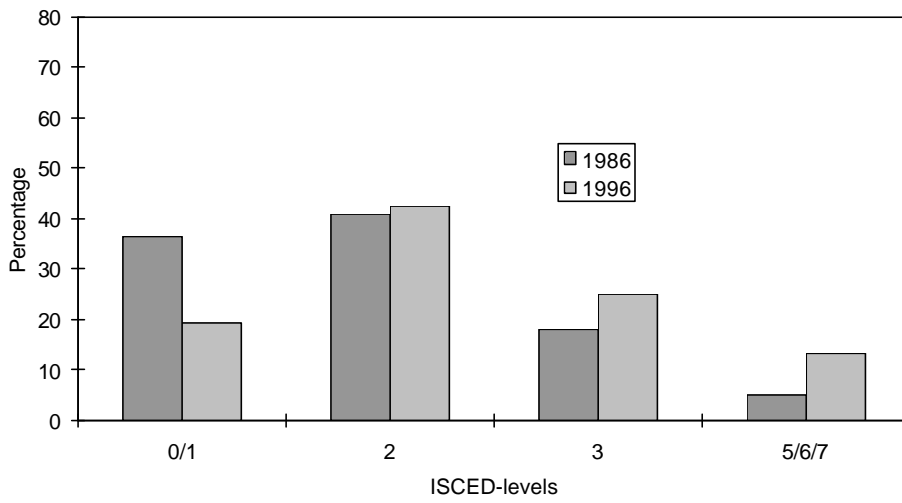
**Figure 2f**  
Qualification levels of the population aged 25-27 **UK** 1995



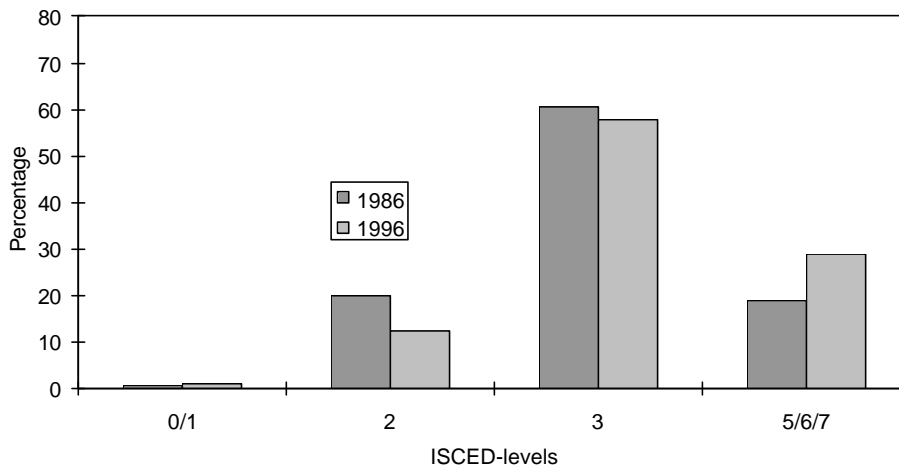
**Figure 3: Qualification levels of the population aged 25-27/28 in 1985 and 1996 (France and Netherlands 1990 and 1996)**



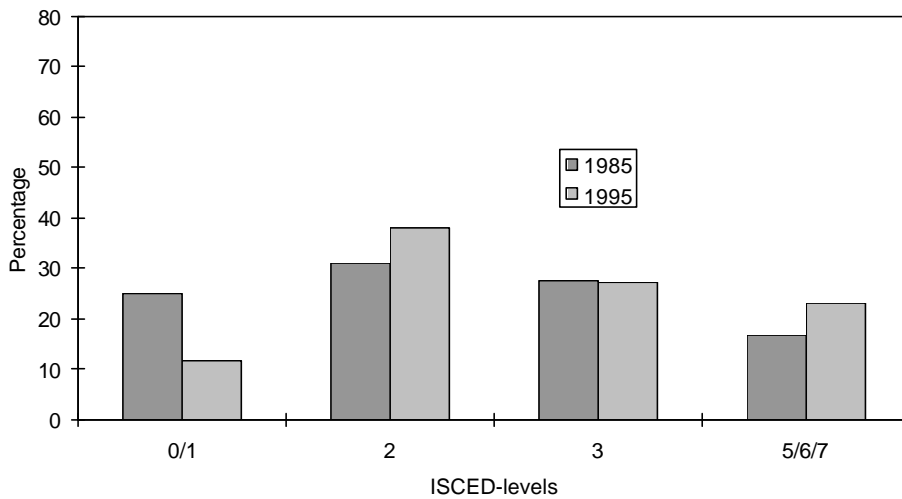
**Figure 3d**  
Qualification levels of the population aged 25-27 **Portugal** 1986, 1996



**Figure 3e**  
Qualification levels of the population aged 25-27 **Sweden** 1986, 1996

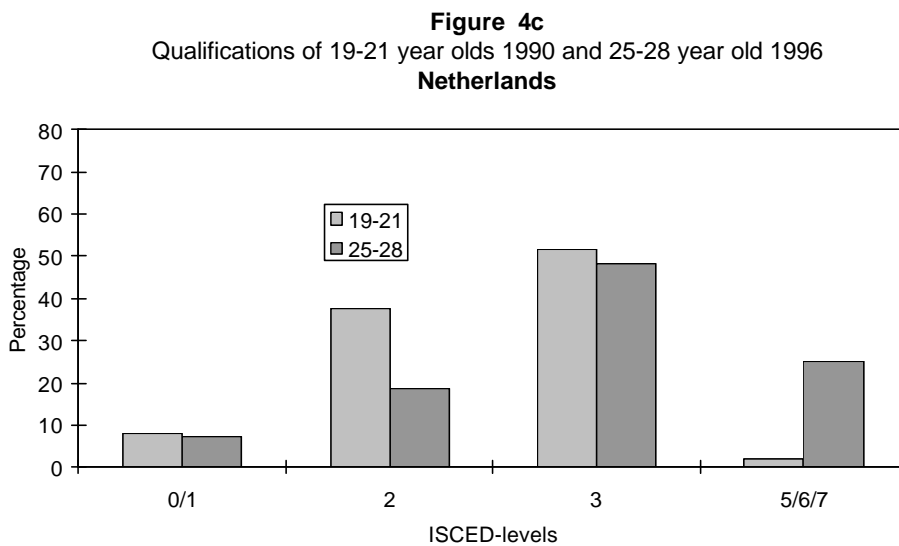
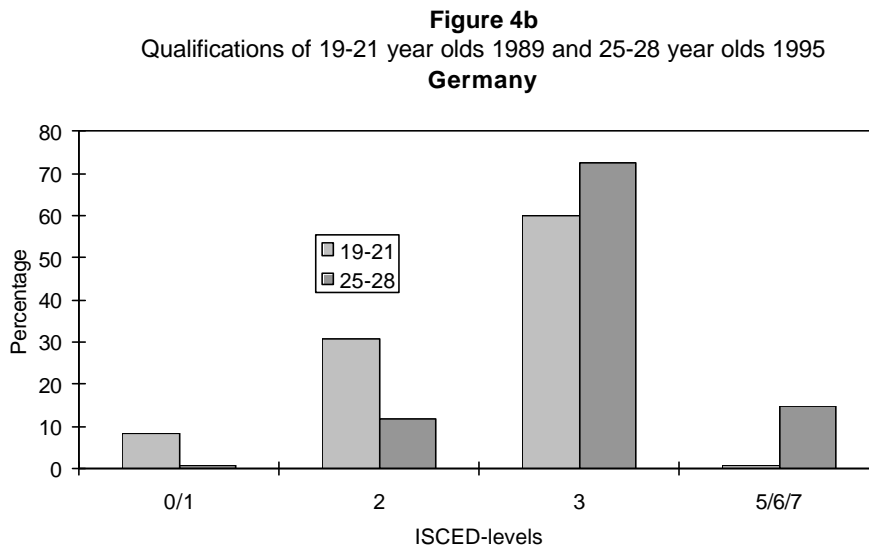
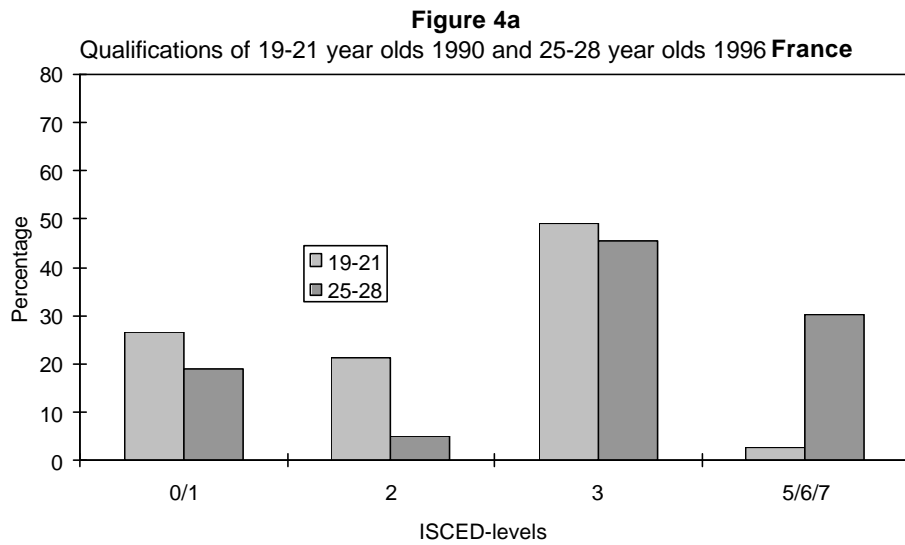


**Figure 3f**  
Qualification levels of the population aged 25-27 **UK** 1985, 1995

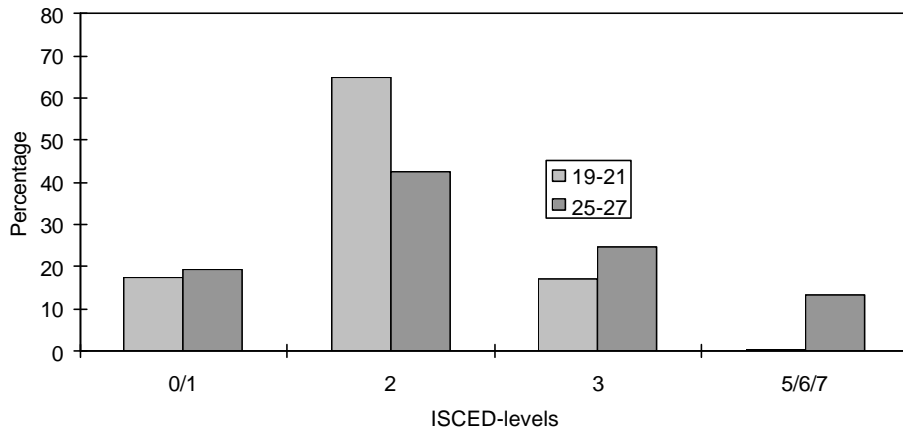




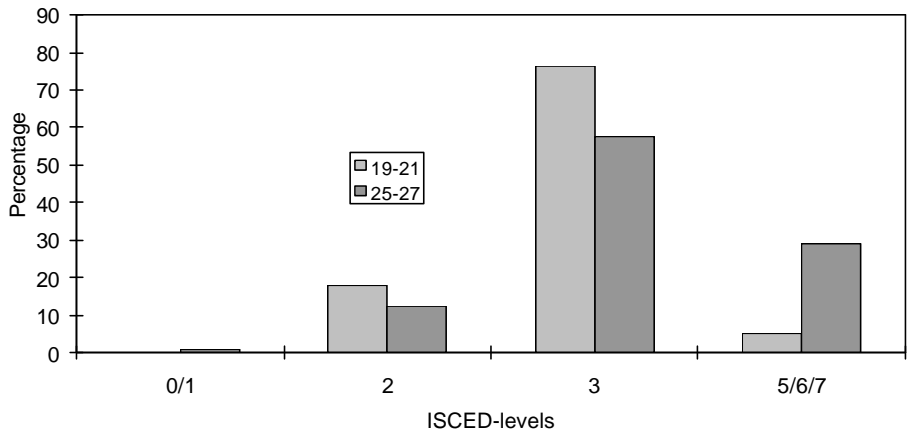
**Figure 4: Qualification levels of 19-21 year olds in 1989/90 and six years later in 1995/96**



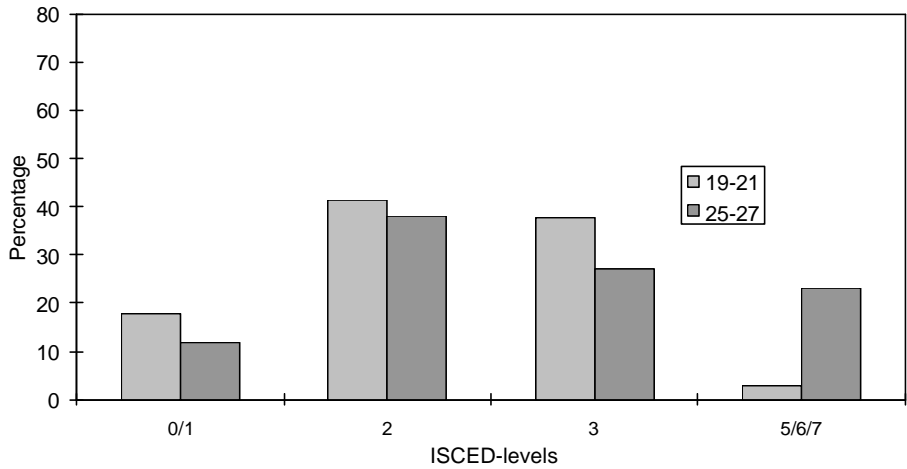
**Figure 4d**  
Qualifications of 19-21 year olds 1990 and 25-27 year olds 1996  
**Portugal**



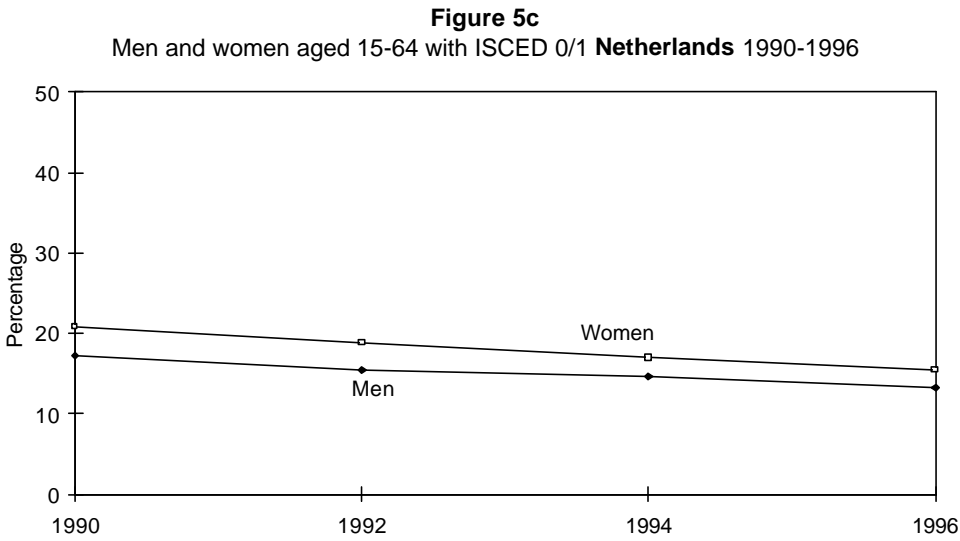
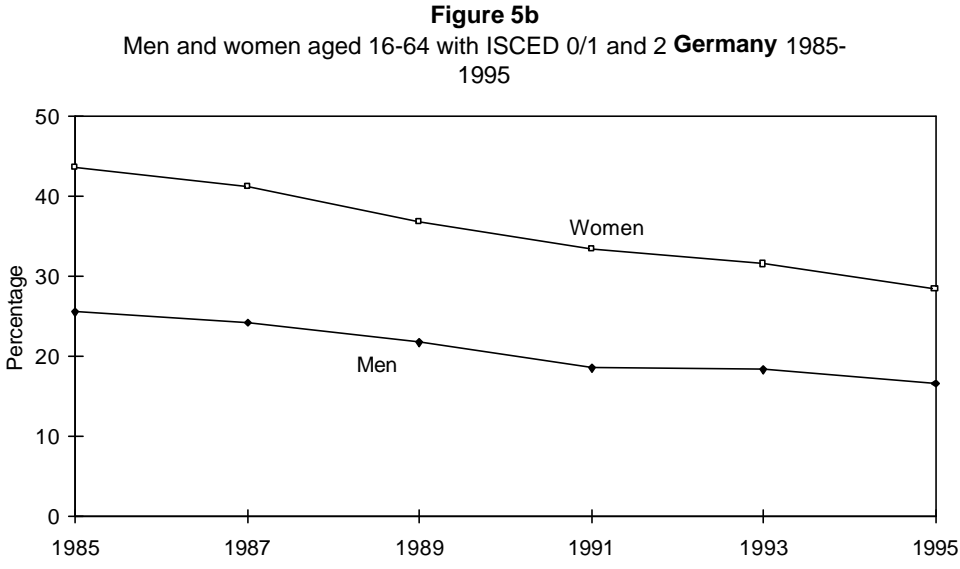
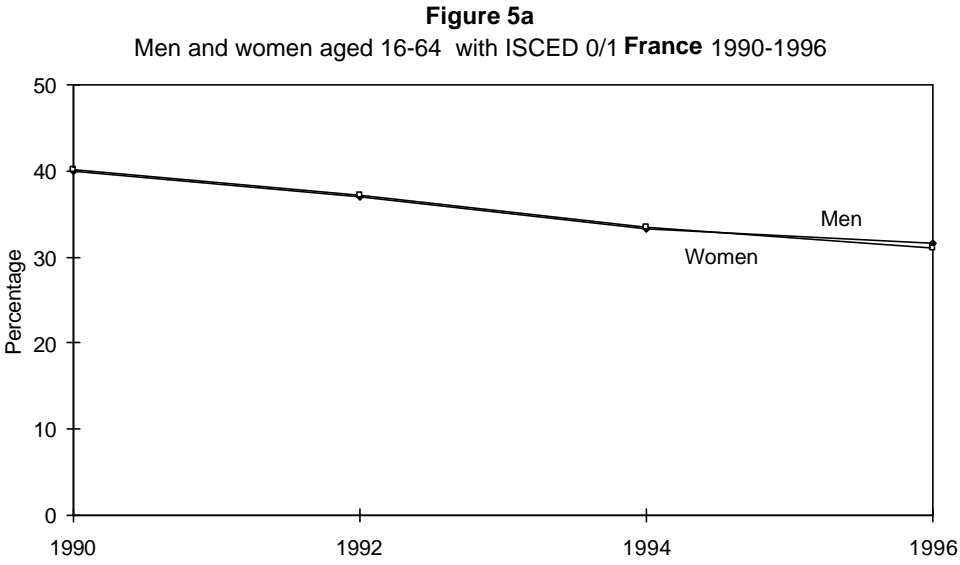
**Figure 4e**  
Qualifications of 19-21 year olds 1990 and 25-27 year olds 1996  
**Sweden**



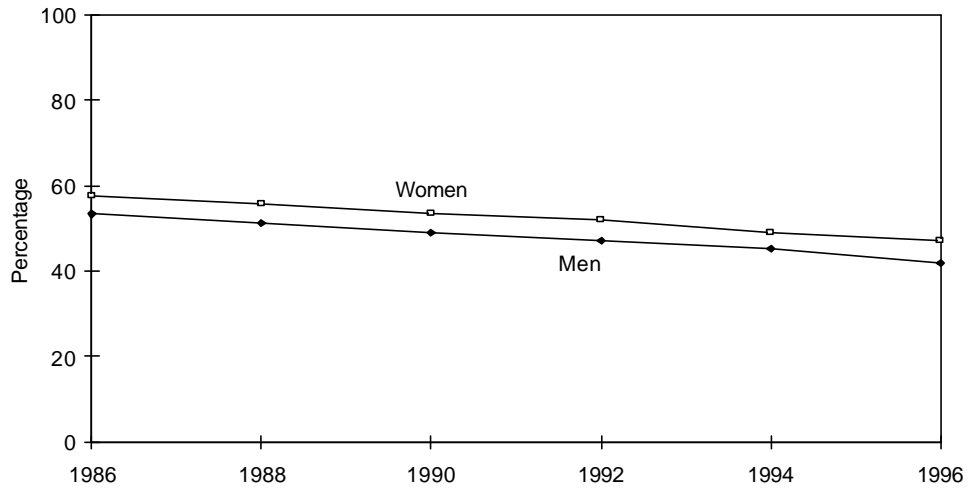
**Figure 4f**  
Qualifications of 19-21 year olds 1989 and 25-27 year olds 1995 **UK**



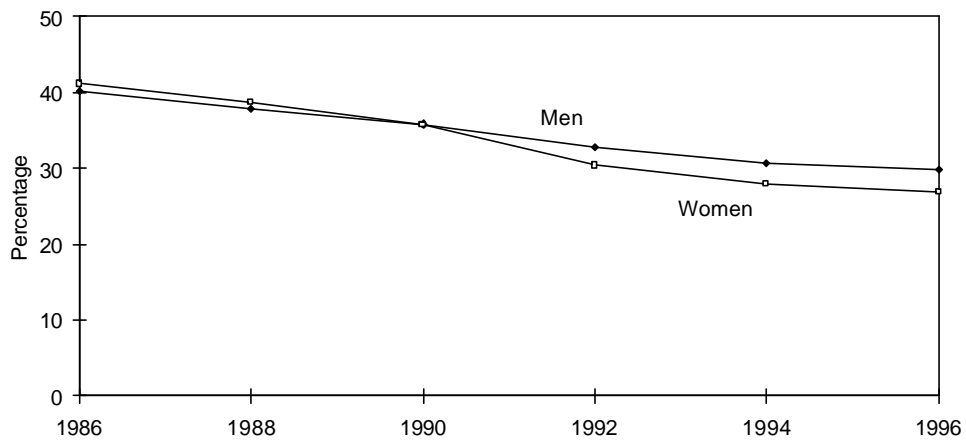
**Figure 5: Men and women aged 16-64 with low education and training levels 1985/86-1995/96 (France and Netherlands 1990-1996)**



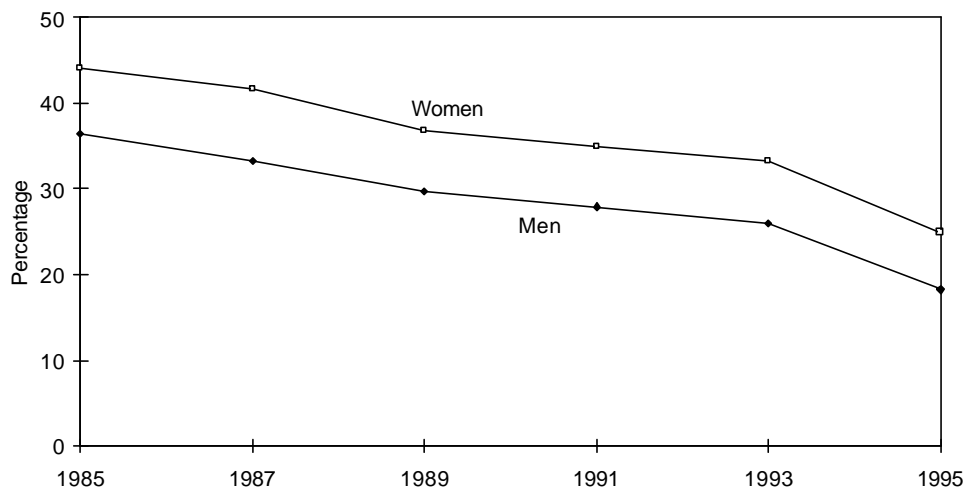
**Figure 5d**  
Men and women aged 16-64 with ISCED 0/1 **Portugal** 1986-1996



**Figure 5e**  
Men and women aged 16-64 with ISCED 0/1 and 2 **Sweden** 1986-1996



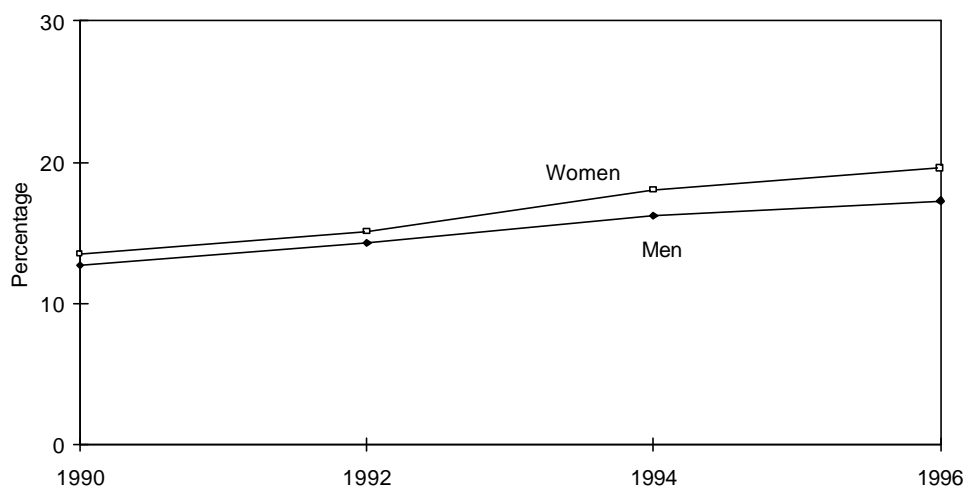
**Figure 5f**  
Men and women aged 16-64 with ISCED 0/1 **UK** 1985-1995



**Figure 6: Men and women aged 16-64 with higher education 1985/6-1995/6  
(France and Netherlands 1990-1996)**

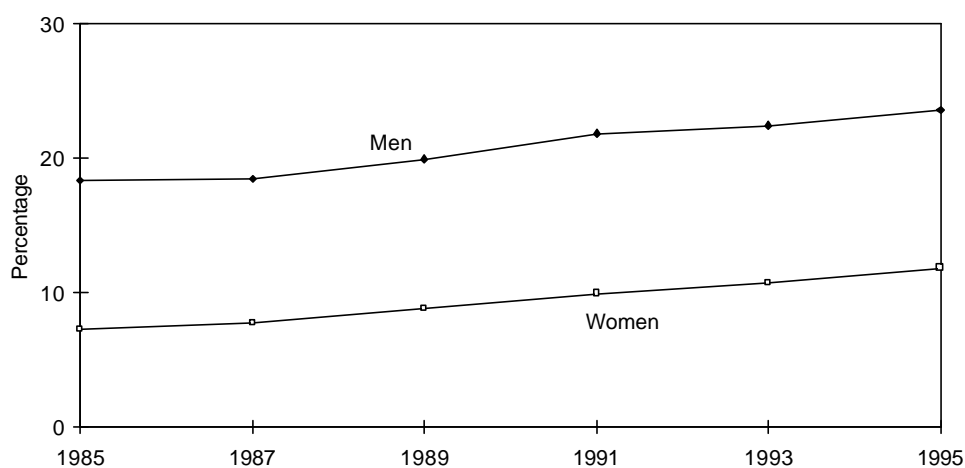
**Figure 6a**

Men aged 16-64 and women aged 16-59 with higher education (ISCED 5/6/7) **France** 1986-1996



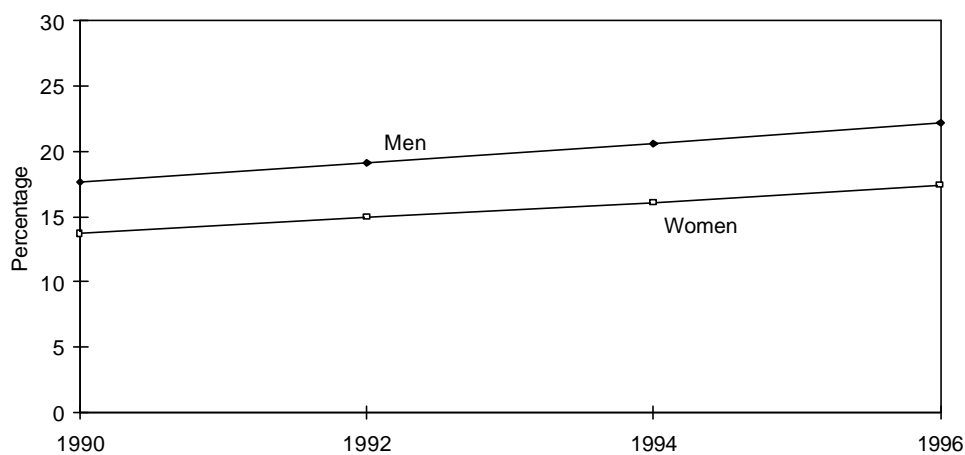
**Figure 6b**

Men and women aged 16-64 with higher education (ISCED 5/6/7) **Germany** 1985-1995

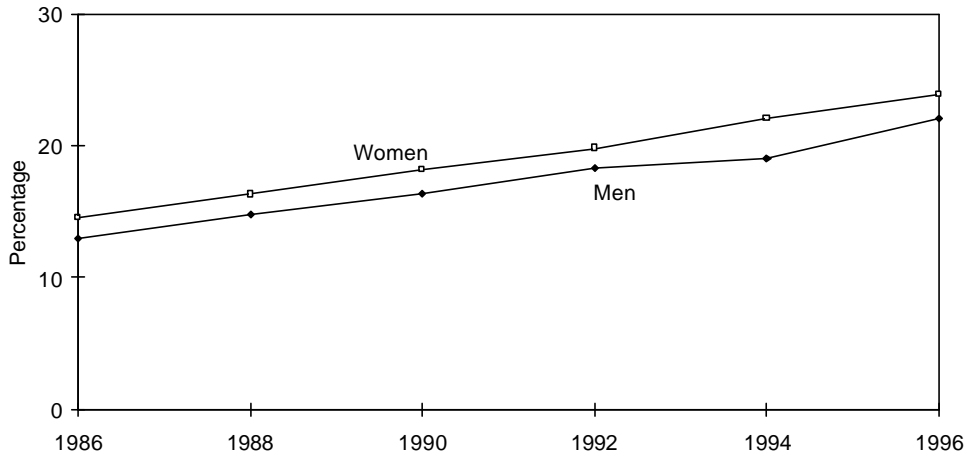


**Figure 6c**

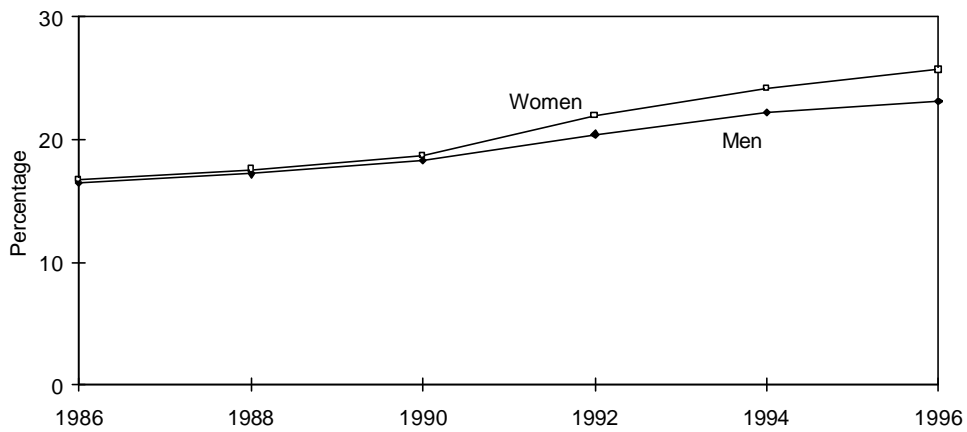
Men and women aged 15-64 with higher education (ISCED 5/6/7) **Netherlands** 1990-1996



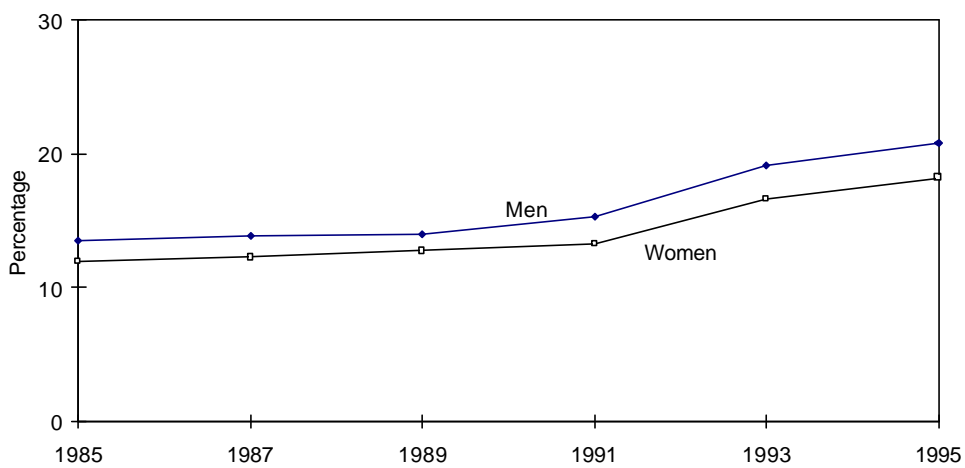
**Figure 6d**  
Men and women aged 16-64 with upper secondary and higher education  
(ISCED 3/5/6/7) **Portugal** 1986-1996



**Figure 6e**  
Men and women aged 16-64 with higher education (ISCED 5/6/7)  
**Sweden** 1986-1996



**Figure 6f**  
Men and women aged 16-64 with higher education (ISCED 5/6/7) **UK**  
1985-1995



## Appendix

Data used to prepare this study were taken from the following sources: France *Enquête-Emploi* Special Tabulations prepared by the *Centre d'Etudes et de Recherche sur les Qualifications* (CEREQ). Germany *Mikrozensus* Special Tabulations prepared by the *Statistisches Bundesamt*, Wiesbaden. Netherlands *Enquête beroepsvolking* Special Tabulations prepared by the *Max Goote Kenniscentrum*, Amsterdam. Portugal, Labour Force Survey Special Tabulations prepared by CEPCEP, Catholic University of Portugal. Sweden, Statistics Sweden *Utbildning och befolkning* Special Tabulations prepared by Stockholm Institute of Education. UK Labour Force Survey Special Tabulations prepared by Centre for Economic Performance, London School of Economics and Political Science. It should be noted that for the sake of consistency in the construction of time series data, Germany refers to the territory of the former Federal Republic of Germany. The following warning relating to the German data after 1989 needs to be kept in mind. After that time the German figures substantially overstate the numbers with no qualifications (ISCED level 0/1). This results from a change in the regulations governing the administration of the German Mikrozensus. After 1989 respondents were no longer bound by law to respond to all questions asked and a proportion — around 10 per cent — subsequently declined to do so. These non-responses were coded to the 'no qualifications' category when in fact many of those not responding held a qualification. Using the 1989 data, and comparing with subsequent years, we estimate that the proportion at the ISCED-level 0/1 should be some 10 per cent lower than the figure recorded in the Mikrozensus. All charts for Germany post 1989 in text of this report allow for this adjustment.) The data series prepared for this study are being progressively published on the Internet at <http://cep.lse.ac.uk> under the heading Datasets as part of the work for the NEWSKILLS project funded by the European Commission.

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