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SUMMARY

Despite the fact that today's young cohorts are smaller in number and better educated than their older counterparts, high youth unemployment remains a serious problem in many OECD countries. This reflects a variety of factors, including the relatively high proportion of young people leaving school without a basic educational qualification, the fact that skills acquired in initial education are not always well adapted to labour market requirements, as well as general labour market conditions and problems in the functioning of labour markets. The paper highlights the trends in youth labour market performance over the past decade using a wide range of indicators. It also presents new evidence on *i)* the length of transitions from school to work; *ii)* the wages, working conditions and stability of jobs performed by youth; and *iii)* the degree of so-called "over-education", *i.e.* the gap between the skills of young people and the jobs they get.

RÉSUMÉ

Même si les cohortes des jeunes d'aujourd'hui sont moins nombreuses et mieux éduquées que leurs aînés, le taux de chômage élevé des jeunes demeure un sérieux problème dans beaucoup de pays de l'OCDE. Ceci tient à un ensemble de facteurs, comme la proportion relativement élevée de jeunes sortant de l'école sans qualification élémentaire, le fait que les qualifications acquises dans l'éducation initiale ne sont pas toujours bien adaptées aux exigences du marché du travail, tout comme les conditions générales et les problèmes de fonctionnement des marchés du travail. Ce papier met en lumière les tendances de la performance du marché du travail des jeunes au cours de la dernière décennie en utilisant une large variété d'indicateurs. Il présente aussi de nouveaux éléments sur *i)* la durée des transitions de l'école à l'emploi ; *ii)* les salaires, les conditions de travail et la stabilité des emplois des jeunes; et *iii)* le degré de « surqualification », c.-à-d. la différence entre les qualifications des jeunes et les emplois qu'ils occupent.

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STARTING WELL OR LOSING THEIR WAY? THE POSITION OF YOUTH IN THE LABOUR MARKET IN OECD COUNTRIES

Introduction

1. There is growing concern regarding the situation of youth in the labour market. Despite the fact that today's young cohorts are smaller in number and better educated than their older counterparts, high youth unemployment remains a serious problem in many OECD countries. In addition, it is sometimes claimed that job instability has tended to increase among those youths that do have a job. More fundamentally, reducing the length of transitions from school to work and overcoming initial skill mismatches could yield significant economic and social benefits, especially in a context of ageing populations.

2. The main purpose of this paper is to examine how countries compare with respect to school-to-work transitions and analyse the extent to which the situation of youth in the labour market has changed over the past decade or so[1] –unless mentioned otherwise, for the purposes of this report, the term "youth" refers to the age group 15-24. In addition, the paper presents recent policy innovations to improve youth employment prospects. It does not, however, evaluate in any detail the pros and cons of these policy approaches.[2]

3. The analysis has been carried out as part of the reassessment of the 1994 OECD Jobs Strategy which is why time comparisons are often made with reference to the mid-1990s. The paper is organised as follows. Section 1 starts with an overview of the position of youth in the labour market and examines trends over the past decade. Section 2 presents selected policy tools used in OECD countries to combat youth labour market problems, in light of recent findings.

Main Findings

- The overall picture with regard to developments in the youth labour market over the past decade is a mixed one. Some key indicators point to small improvements in performance, others point in the opposite direction.

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1. The issue of youth and the transition from school to work has been much discussed in earlier OECD work, notably several editions of the OECD *Employment Outlook* (OECD 1996, 1998, 1999, 2002); a high-level conference in Washington in 1999 (OECD, 1999*b*); a Ministerial meeting in London in 2000 (OECD, 2000*b*); and a Thematic Review of Transition from School to Work (OECD, 2000). Compared with this earlier work, this report adds value in the following ways: it analyses the process of transition from school to work, looking at the characteristics of entry jobs and their evolution; and it presents existing policy stances in OECD as well as a number of more recent policy initiatives.

2. Policy evaluation will be made in a series of forthcoming country reports as part of a new Thematic Review on School-to-Work Transition, which will be carried out by the OECD Secretariat between 2006 and 2009.

- Between 1995 and 2005, the OECD-average youth unemployment rate fell by 0.8 percentage points. Improvements were recorded in just over half of OECD countries, and the fall in the youth unemployment rate was very large in some cases, notably in Spain, Ireland and Finland. One the other hand, rises of more than 5 percentage points were observed in Eastern Europe, Austria, Germany and Luxembourg. Cross-country variation in youth unemployment remained large in 2005.

- Youth unemployment rates being strongly affected by the business cycle, the ratio of youth to adult rates is a more relevant indicator of how youth unemployment has evolved over the past decade. In 2005, the youth unemployment rate was, on average, 2.7 times higher than that of prime-age adults, slightly up on the 1995 average ratio of 2.4. The relative position of youth has worsened in more than two thirds of OECD countries.

- The incidence of long-term unemployment among youth fell on average between 1995 and 2005. Large falls were observed in Belgium, Ireland and Spain. By contrast, some of the countries with a high share of long-term unemployed in 1995 have seen a further increase, notably Eastern European countries. A steep increase was also observed in Japan, a country with a below-average incidence in 1995.

- Another indicator of youth labour market performance, the employment rate, points to a slight deterioration in youth labour market performance: 42.3% of all youth were employed, on average, in the OECD in 2005, down from 43.6% in 1995. Although in general, a fall in employment rates for young people need not be bad news as it may indicate that they are spending more time in education, many of the countries where a fall was observed experienced a parallel rise in unemployment. The ratio of the employment rate of youth relative to adults varies considerably across OECD countries, ranging from 0.3 in 2005 in some Eastern European countries to more than 0.7 in North America, Australia, New Zealand and Northern Europe.

- The proportion of young people neither in education nor in employment or training (NEET) provides another key indicator of labour market performance for youth because this is a group at high risk of labour market marginalisation and social exclusion. NEET rates have fallen somewhat between 1996 and 2003 but, at 17%, on average for young adults (aged 20-24), they remain high.

- Not surprisingly, the NEET status is only transitory for most young people. Indeed, turnover of youth in NEET status tends to be many times higher than for adults, particularly in France, Finland and the United States. However, there is evidence that, in several European countries, a small share of youth may persist too long in this situation. The share of NEET youth in 1997 that spent the following five years in this status reached 30% in Italy, 20% in Greece and exceeded 10% in several European countries. This suggests the existence of a small group of disadvantaged youth difficult to mobilise into work, even in countries where the position of youth on the labour market has improved over the past decade and where prospects for this group as a whole are rather bright.

- School failure is often a factor behind prolonged unemployment or inactivity. More than 14% of young people on average across OECD countries leave school without an upper secondary qualification, which is regarded as a minimum to get a job in today's labour market and support further acquisition of skills. And school drop-outs are disproportionately represented in youth unemployment and NEET. However, the share of 16-year-olds who are not attending education – a proxy used to assess the evolution of school failure over time – has fallen by about 2 percentage points between 1998 and 2003.

- In addition, even for those who do acquire an upper-secondary qualification, transitions to stable employment can be long. In European countries, it takes, on average, almost two years to find a first job after leaving school.

- Over the past decade, the share of youth in temporary jobs has increased in almost all OECD countries while that of adults has shrunk only slightly. Temporary jobs are particularly common when youth enter the labour market for the first time. This need not be a problem if temporary employment proves to be a first step towards career progression. While the analysis shows that in a number of European countries youth who start in temporary jobs tend to move slowly into permanent work arrangements, in other countries temporary-work traps are more likely to arise – notably in Spain.

- Low pay – defined here as an hourly wage lower than two thirds of the median wage in a given country and year – is also a rather common feature of jobs performed by young people and a phenomenon that has grown in some countries between 1995 and 2001. In several OECD countries, more than 25% of young workers were low-paid, each year on average, between 1997 and 2001, a much higher proportion than among prime-age adults. However, the incidence of low pay among young workers tends to decrease over time and exit rates from low pay are relatively high, and higher than exit rates from non-employment. In other words, it is better for career progression to be working in a low-pay job than to have no job at all.

- The phenomenon of so-called "over-education" – which arises when young people perform jobs which require much less skills than they have acquired in initial education – is gaining ground in Europe. One in five working youth, on average, was "over-educated" in 2005, 1.5 percentage points more than in 1995. The incidence of over-education has increased in 15 out of the 22 countries for which estimates could be made. In addition, over-education is more common among young workers on temporary or part-time jobs, than among their permanent or full-time counterparts. While over-education may be part of the natural process of transition from school to work, further research is needed to shed light on why rates differ so widely across countries and to establish whether reducing it can favour productivity growth through a better match of individual skills and tasks performed.

- Countries use a variety of instruments to improve the labour market situation of youth. First, there is agreement that, in order to improve youth job prospects, it is essential to combat school failure. In particular, *early* and *sustained* intervention can help prevent a vicious circle of cumulative disadvantages. Pre-school programmes – such as Head Start in the United States – play a key role in this respect. Most countries have only started to tackle the issue, mostly through reforms of initial education aimed at guaranteeing equity of its provision and by reinforcing vocational education for students not attracted to general studies.

- Second, apprenticeship and dual-type systems, traditionally found in Austria, Denmark, Germany and Switzerland, have proven successful in giving young people a good start in the labour market (although longer-run effects have been shown to be limited). This helps explain why these countries enjoy relatively low youth unemployment rates. Recently, however, concern has been expressed, especially in Germany, as to whether employers in these countries will continue to offer a sufficient number of apprenticeship places. As a result, particular attention should be paid in dual-type systems to the existence of sufficient incentives for employers' participation – such as an apprenticeship pay level that accounts for the training effort – and to the creation of high-quality classroom-based vocational education for those young people who may not get an apprenticeship place. In general, the difficulty of instituting or expanding dual-type systems in

other countries is not to be underestimated, as such systems rest on the presence of powerful employer associations and the active involvement of all social partners.

- Third, there is increasing recognition of the importance of activation strategies for promoting employment prospects of unemployed youth. Some of the most ambitious and comprehensive programmes – notably the New Deal for Young People in the United Kingdom – seem to have been successful in helping participants find a job. These programmes should focus on job-search assistance, often found to be the most cost-effective for youth. Besides, where training is envisaged, it should be designed with labour market requirements in mind. Finally, good targeting and tight work-search requirements are important design features to help contain overall costs while guaranteeing focus on the needy. Work remains to be done in terms of evaluation and monitoring, especially in terms of the ability of active labour market programmes to help the most disadvantaged youth find a job. For the latter group, some U.S. studies suggest that residential programmes – where youth are taken away from their neighbourhood and given mentoring, work experience and remedial education – may yield significant improvements in labour market and social outcomes, leading to high social rates of returns.

- Supply-side policies need to be complemented with policies aimed at increasing job creation in general and at removing obstacles to hiring young people in particular. The hiring of young workers is likely to be hampered by certain institutional settings favouring insiders and by high labour costs that may discourage employers from hiring workers with high training needs. The introduction of sub-minimum wages for youth may help in this regard, and such a sub-minimum wage may need to be complemented with in-work benefits in order to reduce the risk of poverty while also making work more financially attractive than remaining on benefits and/or being supported by the family. In addition, well-conceived reforms to employment protection legislation that avoid the risk of labour market duality may help youth enter the labour market without an undue risk of getting locked into temporary-job traps. The restated OECD Jobs Strategy provides a solid benchmark for such reforms.

1. The position of youth in the labour market

1.1 A picture of the difficulties faced by youth: unemployment and joblessness

4. This section paints the position of youth in the labour market and how it has changed over the past decade. It focuses on unemployment, as well as broader measures of labour market performance such as the proportion of youth neither in employment nor in education and job turnover.

Standard measures of labour market performance: unemployment and employment rates

5. In 2005, 15.7% of youth participating in the labour market were unemployed on average in OECD countries (Figure 1, Panel A), down from 16.4% ten years earlier. Youth unemployment rates fell in several countries, including many of those where they were very high in 1995 – notably, Finland, Ireland, Italy, and Spain. Among the largest declines, the youth unemployment rate almost halved in Spain over the past decade and a very sharp fall was also recorded in Ireland.

6. Despite the decline in the OECD average, youth unemployment rates remain very high in about half of the OECD member countries, with extremes in Poland and the Slovak Republic – 38% and 30%, respectively, in 2005 – and rates exceeding 20% in France, Greece, Italy and Sweden. At the other end of the spectrum, Mexico – at 6.6% in 2005 – has the lowest rate of unemployment for young people, followed closely by Iceland, Denmark, and Ireland.

7. Perhaps a more relevant indicator than the youth unemployment rate, which is affected by the business cycle, is the ratio of youth to adult unemployment rates (Figure 1, Panel B). This ratio has risen slightly over the past decade, from 2.4 in 1995 to 2.7 in 2005, with increases recorded in more than two thirds of OECD countries. In 2005, in all 30 OECD countries, youth were more likely to be unemployed than prime-age adults – *i.e.* the ratio is always larger than one. And in 28 of the 30 OECD countries, the unemployment rate of youth was more than twice that of adults – with Denmark and Germany being the sole exceptions.

Figure 1. **Unemployment and Employment rates of youth in OECD countries, 1994-2004**

8. Another indicator of youth labour market performance, the employment rate, points to a slight deterioration in youth labour market performance: 42.3% of all youth were employed, on average, in the OECD in 2005 (Figure 1, Panel B), down from 43.6% in 1995. Employment rates have fallen over the past decade in several OECD countries – notably in Eastern and Southern Europe, OECD Asia, Mexico and the United States, Austria, Denmark, Germany, Luxembourg, and the United Kingdom. Although in general, a fall in employment rates for young people need not be bad news as it may indicate that they are spending more time in education, many of the countries where a fall was observed experienced a parallel rise in unemployment.

9. Looking at levels in 2005, large cross-country differences can be observed, with employment rates ranging from more than 60% in Australia, Denmark, Iceland, and the Netherlands, to below 25% in Hungary and Poland.

Youth neither in education nor in employment

10. While the youth unemployment rate remains a useful indicator, it is important to remember that youth who face employment difficulties may be inactive instead of unemployed. Indeed, young people are particularly likely to drop out of the labour force when jobs are hard to find. At the same time, the increase in the inactivity rate is partly accounted for by the growing share of young people who tend to stay in education beyond the age of compulsory schooling and this can hardly be seen as a group at risk. It is therefore useful to examine a measure of *joblessness* (presented in Figure 2) which accounts for all those who are neither in education nor in employment (NEET).

Figure 2. **Share of young adults and teenagers neither in education nor in employment (2003-1996)**

11. This particular indicator suggests a small improvement in performance: on average in 2003, almost 17% of young adults (20 to 24 years of age) were neither in education nor in employment in OECD countries, down 2 percentage points since 1996 (see Figure 2). Above average NEET rates were observed in Eastern European countries, Greece, Italy, Mexico and Turkey, although, for some of these countries, NEET rates declined sharply since 1996 – this is the case, notably, in Hungary, Poland, Greece and Mexico. The picture for teenagers – 15 to 19 years of age – is slightly better, with only about 8% of them neither in education nor in employment – reflecting compulsory education requirements.[3]

3. Although these figures underline the importance of looking at NEET rates together with unemployment rates when dealing with youth who are not in employment, it is important to note that even when youth NEET rates are very high, this may be generated by choices (*e.g.*, travel, leisure), or by non-economic constraints (*e.g.*, military conscription). For example, in Sweden, around half the inactivity of young adult males is associated with military service and foreign travel.

12. While in several countries high youth unemployment rates go hand-in-hand with high NEET rates, this is not always the case. Central and Eastern European countries, Greece, Italy and Turkey experience both high unemployment and high NEET rates. On the other hand Finland, France and Spain have relatively high youth unemployment but moderate or low NEET rates and the opposite holds in Mexico and the United States. Finally, Denmark, the Netherlands and Iceland combine both relatively low youth unemployment and NEET rates.

13. Obviously, youth who left school without qualifications (early school drop-outs, see Box 1 for more on this issue) are more likely to be neither in education nor in employment than their more educated counterparts (Figure 3). In addition, within this group, rates for women are particularly high – reaching more than 70% in Eastern European countries, Greece, Mexico and Turkey, and more than 50% in Germany, Ireland, Italy and New Zealand. As average qualification levels rise, NEET rates tend to decrease and gender differences shrink. Nevertheless, NEET rates remain high at least up to upper secondary education, and for some countries – notably Belgium, Hungary, Italy, New Zealand and Turkey – NEET rates in excess of 10%, on average, across gender, are still observed for individuals with tertiary education qualifications.

Figure 3. **NEET rates by educational level and gender, 2003**

14. Figure 4 sheds some light on the persistence of the NEET status for young people. It provides a comparison of the share of youth who are NEET in each *single year* and two measures of NEET status incidence over five years: the larger share of persons *ever* NEET during the five-year period (those who have been NEET at least once) and the smaller share of *always* NEET. The ratio of *ever* NEET to *always* NEET gives a measure of turnover in NEET status. If there were no turnover in the NEET population, the ever, single-year and always-NEET incidence rates would be equal (see also OECD, 1997).

Figure 4. **Alternative incidence measures of NEET status of youth, 15-24, 1997-2001**

15. Figure 4, Panel A, shows that there is some turnover in the NEET group for those countries for which data are available. In Austria, very few young people are continuously NEET over the five years.[4] And in Finland almost ten times as many young persons were NEET at some point during the five-year period as were continuously NEET during that period, implying considerable movement into and out of the NEET status.[5] In all countries, turnover in the NEET group is higher for youth (4.3 on average) than for prime-age adults (2.2 on average). However, a *hardcore* group of youth with NEET status over the entire 5-year period can be identified in several European countries. The share of youth in the "always NEET" category is rather high in Italy – about 30% – and in Greece – approximately 20%, and it exceeds 10% in several other countries, including France, Germany, Ireland, the Netherlands and Spain. In addition, Panel B suggests that in Finland, the United States and France, more than 15% of young people who were NEET in 1997 experienced more than one NEET spell over the five following years. And in 9 out of 11 countries represented, youth were likely to spend three or more of the five years out of work and education.

4 . Such a small denominator makes it difficult to calculate a sensible turnover rate.

5 . Note that some of the NEET turnover is due to military service in those countries where it applies.

Box 1. **Early school drop-outs: the size of the problem**

Youth who drop out of upper secondary education without any qualification – early school drop-outs – risk facing a particularly difficult start in the labour market. Indeed, rising skill demands in OECD countries have made completion of upper secondary education the minimum credential required for successful labour market entry and a basis for further participation in lifelong learning (see OECD, 2000). In addition, these young people are also at risk of social exclusion. The European Union has set an objective of reducing the share of early school leavers – *i.e.* for the EU, 18-24 years-old with at most a lower secondary education qualification and not in further education – to less than 10% by 2010.

Figure. **Share of youth leaving school without upper secondary education, 2003**

In 2003, almost 55 million (i.e. nearly 17%) youth, in total in OECD countries, were not in education and had not completed successfully upper secondary education. This represents very different proportions in different countries, ranging from 3.3% in Norway to 55% in Mexico (see above Figure).

The evolution of the share of youth that leave school without an upper secondary degree can be followed over time using enrolment rates. Overall, the share of teenagers who have already left the education system without an upper-secondary degree has tended to fall but remains rather high in several OECD countries. The Table below shows that, among 16-year-olds the share who is not attending education has decreased in 17 out of the 27 countries for which data are available at two points in time – 1998 and 2003.

Table. **Share of 16-year-olds who are not enrolled in education**

Labour market flows and unemployment durations

16. It has been known for a while that youth tend to experience more frequent but shorter unemployment spells (see OECD, 1984, and Freeman and Wise, 1982). Figure 5 confirms this fact and shows that, in 2005, the share of long-term unemployed was always smaller for youth than for adults (see Figure 5, in brackets). The country ranking was very similar across age-groups, with the exception of Germany – a country doing relatively well on the youth front despite having one of the highest shares of long-term unemployed among adults.

Figure 5. **Incidence of long-term unemployment among youth**

17. In about half of OECD countries, most young people were unemployed for less than three months in 2005 – *i.e.* the median duration of unemployment was shorter than three months. At the same time, in 2005, in half of OECD countries, more than 1 in 5 youth experienced unemployment durations in excess of 52 weeks, suggesting the existence of serious labour market difficulties for a small group of young people. In addition, while in the best performing countries long-term unemployed has decreased for youth over the past decade, some of the countries starting off with a high share of long-term unemployed have seen a further increase, notably Eastern European countries.

Figure 6. **Job hires of younger workers, 2004**

Figure 7. **Job quits and job losses among younger workers, 2004**

18. Figures 6 and 7 present further information on youth and adult labour market dynamics. Unsurprisingly, youth represent a high proportion of new hires and job changers (Figure 6). Job quits are more common among them than for adults (Figure 7). Overall, this is consistent with the fact that youth

tend to change jobs more frequently at the beginning of their career in search for the best possible match between their skills and those required by employers – so-called *job shopping*.[6]

1.2 The length of school-to-work transitions in OECD countries

19. Evidence for European countries shows that, one year after leaving school, many young people are still without work – more than 50% in Greece, Poland, Italy, and the Slovak Republic (see Figure 8, Panel A). In the best performing European countries (Netherlands and Switzerland), about 20% of young people did not have a job one year after leaving school. However, the averages presented in Panel A hide important differences across educational qualifications (see Panels B, C, and D). Indeed, while the country ranking remains rather stable, rates of non-employment tend to decrease with educational qualifications. For instance, in Greece, more than 80% of those without an upper-secondary qualification are non-employed one year after leaving school, while the corresponding rate is approximately 55% for those with an upper-secondary qualification and 45% for the most educated. The Netherlands, Switzerland and Denmark are the three best performers at all skill levels.

Figure 8. **Labour Market Status one year after leaving school, 2004**

20. Figure 9 adds a dynamic dimension to the activity status of youth by looking at shares in each status between the ages of 15 and 28. Obviously, as time passes, the share in education decreases and the share in employment increases. However, it is interesting to see that once the NEET area in the chart reaches its maximum size (between ages 18 and 20), it tends to remain roughly constant for later ages. While Figure 4 above suggests some turnover within youth in the NEET category, these data show that NEET status can be quite persistent in some countries, notably Italy and Greece, and that young people tend to experience repeated spells out of work and education and these spells have high cumulative durations.

Figure 9. **Share of persons aged 15-28 by activity status in Europe, 2002**

21. To quantify the length of transitions from school to work in European countries, Table 1 presents results obtained following young people over seven years (1994 to 2000) after they left the education system.[7] Spanish, Italian and Finnish school leavers are those that take longest to find a first job, with transitions of more than two years. At the other hand of the scale, school leavers in Ireland, Denmark, and Germany take one to one and a half years on average to find their first job.

Table 1. **Average duration of transitions from school to work in Europe, 1994-2000**

22. In addition, the first few years on the labour market after leaving school are not always easy for young people who tend to experience multiple spells of unemployment before settling into work. Table 2 presents information on the number of spells of unemployment experienced by young people over the

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6 . Note that the labour market dynamics of youth described in this paragraph are not new. Indeed, it has always been the case – see OECD (1983) – that youth unemployment rates are due mainly to high frequency of entry to unemployment rather than relatively long average duration of unemployment spells. To a certain extent, this is just part of the natural dynamics of settling into the world of work.

7. The length of transition is calculated only for those who actually found a job over the 7-year period but inclusion of those who had not found a job yet in the year 2000 – to whom a value of 7 years was attributed – hardly changes the results (available on request).Also note that the number of observations is small so the results must be taken with care and should be read as only suggestive of differences in the length of transitions from school to work across countries.

seven years after leaving school. It shows that, in Germany and Austria – where the apprenticeship system is most developed – more than half of those leaving school find a job without experiencing any unemployment. In Spain, on the other hand, multiple spells are common among youth, with 56% of them experiencing two or more over the seven years considered. For some of the countries included, Table 2 suggests some polarisation of unemployment experience among recent school leavers, with peaks at no spell or two or more spells and fewer individuals in between – *i.e.* Belgium, Finland, France, and Portugal. This may reflect differences in behaviour by qualification but the sample is too small to tackle this issue.

Table 2. **Unemployment experience over the seven years after leaving school in Europe, 1994-2000**

23. The total time spent in unemployment over the seven reference years is also interesting. In Southern European countries, youth spend on average about one fourth of their time in unemployment, while in Austria, Denmark, and Ireland they only are unemployed about five months out of the 84.

1.3 What entry jobs for youth?

24. As young people enter the labour market for the first time, employers may be reluctant to hire them on permanent contracts or on a full-time basis and entry wages are likely to be lower to account for time spent on training in the first job. In addition, as young people lack previous experience, employers who cannot fully observe their productivity and skills may hire them on jobs that require less than their qualifications. There may even be a link between the availability of temporary, part-time and low-pay jobs for young people and their employment rates. In other words, there could be a trade-off between accepting a job with these characteristics or remaining unemployed much longer. However, while the stepping-stone nature of these jobs would be welcome, temporary work and low-pay traps – *i.e.* young people unable to move to more stable employment or better paid jobs – could pose a problem. For instance, temporary jobs tend to give fewer training opportunities than permanent contracts and low pay and precariousness may lead young people to delay emancipation from their parents as well as their own family formation.

25. This section looks at the characteristics of entry jobs. Aspects considered here include the incidence of temporary and part-time work, pay conditions, and mismatching between individual skills and those required by the job.

Temporary work for young people: a stepping stone or trap?

26. Although temporary jobs already were a dominant feature of youth employment in the mid-1990s, the share of youth on temporary jobs has increased further over the past decade (see Figure 10) in most OECD countries, with the exception of Northern European countries, Ireland, Spain and Turkey. In addition, the share of employed youth on temporary jobs continues to be much higher than for adults in OECD countries. Among school leavers who find a job, temporary employment seems to be the rule in Europe. Figure 11 shows that in Spain, 8 in 10 young people employed one year after finishing school, were on a temporary contract in 2004. The same figure exceeded 50% in Portugal, Sweden, France, Germany, Finland and Italy. At the opposite end of the scale, Iceland, the United Kingdom and the Slovak Republic had the lowest incidence of temporary employment one year after school ends. In addition, in some countries – notably Belgium, the Czech Republic, Portugal, the Slovak republic, and Spain – temporary work was mostly involuntary – *i.e.* youth would have liked a permanent post but it was not available.

Figure 10. **Incidence of temporary employment for persons aged 15-24 and 25-54 in OECD countries, 1995-2005**

Figure 11. **Incidence of temporary employment one year after leaving school in Europe, 2004**

27. Temporary work should not necessarily be equated with low-quality employment, as it may represent a stepping stone into the labour market and the pathway to permanent work, particularly for young people without labour market experience. However, temporary-work traps may arise when youth accumulate temporary contracts rather than moving on to permanent jobs providing more training and career opportunities. To identify the countries where temporary-work traps may exist, Figure 12 shows the evolution of the incidence of temporary work over the past decade, for a synthetic cohort of youth aged 18 in 1995-1997. Although this is only an approximation of following the same individuals over time, the figure shows a clear tendency in all counties for youth to start working on temporary jobs but settle into permanent work later in life. Employed youth aged 18 at the beginning of the period are most likely to be in temporary jobs in Spain, Finland, France and Sweden, but while the share of temporary workers decreases over time in all four countries, it settles at different levels. In France, the share of 27 year-olds in temporary work in 2005 is just 13% while it stands at more than 45% in Spain.[8] The profile is much flatter in other countries, particularly those with a lower incidence of temporary work.[9] Note that similar pictures can be obtained by looking at the incidence of temporary work in a cross-section by year of age (see Annex Figure A1.1).

Figure 12. **Share of persons aged 18 to 27 not in school and in temporary work by age, 1995-2005**

28. The yearly rate of transition from temporary to permanent work – *i.e.* the proportion of youth on temporary jobs one year who are in permanent employment the following year – may also help in evaluating the existence of temporary-work traps. In Europe, between 1996 and 2001, this rate declined in a number of countries – notably Austria, Belgium, France, Germany, Greece and the United Kingdom (Figure 13).

Figure 13. **Transition rates from temporary to permanent work in Europe, 1996-2001**

29. Finally, as Table 1 above showed, finding a permanent job takes on average several months longer than finding any job. The difference is most striking in Greece and Portugal where a first job is found within about two years on average from finishing school, but a further 30 months are needed to find a permanent position.

Part-time work among the young

30. As well as entering the labour market on temporary positions, youth are also often working in part-time jobs, as shown in Figure 14. On average, 18.4% of employed youth who left school in 2003 were employed in part-time jobs in 2004, 4 percentage points higher than at the end of the 1990s[10].

8. Note that since we are not following the same individuals over time, the differences at later ages could be due to the fact that those who enter the labour market later are more likely to be on temporary jobs in some countries than others – this could explain why Spain still has such a high share of temporary employment when the synthetic cohort reaches age 27.

9. Note that the slight bump observed in the mid-1990s in Italy and Portugal can be attributed to the liberalisation of the use of temporary contracts in both countries in 1995.

10 . Data relates to 1998 and 1999 for most countries.

31. Considerable variation is observable in this indicator, both across countries and gender. While less than 5% of employed youth one year after leaving school were working part-time in Hungary, the Czech Republic, and the Slovak Republic in 2004, this share exceeded 30% in Denmark, the Netherlands, and Sweden. Also part-time rates are much higher for young women than for young men and much of the increase between the end of the 1990s and 2004 concerned women. Among women in Belgium, Denmark, Finland and Sweden the rise exceeded 20 percentage points. Only in Finland and Sweden, this was accompanied by a rise among men, albeit smaller.

32. It is difficult to determine a priori whether a relatively large share of part-time work is a desirable development among youth. Indeed, the emerging picture for part-time is mixed. In Denmark and the Netherlands, part-time work coexists with very high employment rates and low unemployment rates among youth and it is mostly voluntary. In other countries, such as Belgium and France – where the share of part-time work among school leavers is still relatively high – part-time is mostly involuntary and accompanied by high unemployment and low employment among youth.

Figure 14. **Incidence of part-time one year after leaving school, 2004**

Low entry wages: a ladder to climb?

33. Pay is another important dimension of job quality and one that is particularly relevant for young people who have no previous labour market experience and are more likely to be paid a low wage on their first job. While low starting wages can be justified on grounds that young people need training and work experience, the prospects of progression on the pay scale could be used as a measure of successful labour market insertion. In this respect, Figure 15 presents some indicators of pay dynamics – similar to those used for NEET in Figure 4 – of individuals aged 15-24, over a 5-year period, where low pay is defined as earning an hourly wage that is lower than two-thirds of the median gross hourly earnings of persons aged 25 to 54. All three indicators of low-pay incidence are highest in Greece, the United Kingdom, and the United States and lowest in Austria, Denmark and Italy.

Figure 15. **Alternative measures of low-paid employment for youth, 15-24, over five years, 1997-2001**

34. Many young people are affected by low pay at least once over the 5-year period under analysis – in several countries more than 50%, but high exit rates guarantee a relative high turnover rate. Indeed, both incidence and turnover are substantially higher for youth than for prime-age workers (see OECD 2003 for adult rates) and turnover in low-pay tends to be higher than turnover in non-employment pointing to more dynamism among working youth than among NEET youth (see Figure 4).

35. Panel B of Figure 15 gives more information on the duration and recurrence of low-pay experience among young people. Although it shows evidence for the existence of low-pay traps – with persons low paid in the first year (and working all five years) spending 2 to 3 years in low-paid employment in most European countries and in the United States – these are less likely than NEET traps (see Figure 4).

Figure 16. **Low pay incidence in Europe, 1995-2001**

36. Finally, while Ireland, Spain and Portugal witnessed sharp falls in the incidence of low pay among youth between 1995 and 2001, in other European countries – notably Belgium, Finland, France, Germany, Greece, Italy, the Netherlands and the United Kingdom – the share of low-paid youth increased, sometimes markedly, over the same period (Figure 16).

The phenomenon of over-education: size and persistence

37. There is policy concern regarding the risk that a growing number of young people may be performing jobs which require much less skills than those they acquired in initial education –so-called "over-education". This phenomenon may reflect the expansion of higher education systems and the incapacity of labour markets in some countries to absorb the increasing number of new graduates.

38. However, there is little evidence to illustrate the possible extent of over-education. Employing the same methodology as used by OECD in the past (see Dumont, 2005)[11] – *i.e.* whereby the level of schooling needed in different jobs is defined for 22 OECD Europe countries for which data are available – Figure 17 shows that in Poland, the Slovak Republic and the United Kingdom more than 30% of 15-28 year olds are overeducated. At the other extreme, Portugal and Iceland are found to have the lowest over-education rate, with less than 10% of youth overeducated according to this indicator. In addition, Figure 17 shows that over-education rates have increased over the past decade in 15 out of the 22 countries and in some countries – notably Luxembourg, Austria, the United Kingdom and France – the increase has been considerable. Finally, although the level of over-education in countries with apprenticeship systems – notably, Austria, Denmark, Germany and Switzerland – is relatively low, these countries are still closer to the average than to the best. Panels B and C in Figure 17 show that women are more likely to be over-educated than their male counterparts.[12]

Figure 17. **Over-education rate, 1995-2005**

39. Over-education is more common among young workers on temporary or part-time jobs, than among their permanent or full-time counterparts (Figure 18).

Figure 18. **Over-education rate by job type, 2005**

40. While these figures offer some interesting insights, the extent to which government intervention is needed to reduce the extent of over-education remains debatable. Indeed, over-education may reflect a temporary mismatch between employees' skills and the jobs they perform, and/or, it could be a natural market response to changing signals about the quality of education. As theoretical studies draw a mixed picture, empirical evidence is crucial to shed light on this issue.

41. Overall, empirical findings show that over-education does appear to compensate for the fact that young people lack labour market experience (see Sloane *et al.*,1999 on this issue). In addition, several authors have shown that it is likely to be a temporary phenomenon (see Dorn and Sousa-Pazo, 2005,

11. An education level (out of three) is attributed to each 1-digit occupational code based on the skill content of each broad occupational grouping. A person is then classified as overeducated when his/her educational qualification is higher than that attached to their occupation (for more details on the methodology see Dumont, 2005 and annex Table A1.1). Several alternative methods are used in the literature to measure over-education. A more subjective approach is to ask respondents in a survey what minimal level of education is required to get or to do their job. Another method derives over-education from realised matches. Required education is measured by the average or mode educational level in a certain occupation. Verhaest and Omey (2004) show clearly, both formally and empirically, that the choice of the measure for over-education is crucial for the outcome of the analysis.

12. Several researchers have looked into gender differences in over-education and found little support for the idea that family-tie/geographical rigidities may imply more over-education for women (see, for instance, Dorn and Sousa-Poza, 2005, McGoldrick and Robst, 1996, and, for mixed evidence, Buchel and Battu, 2003).

Cardoso, 2004)[13] which has positive returns for the individuals concerned[14] (see Hartog, 2000, for an overview). Finally, the findings on the effect of over-education on productivity are mixed. Indeed, contrary to supporting evidence found in the United States (see Tsang *et al.*, 1991 for an example), Buchel (2000) finds that in Germany, when comparing employees working in jobs with similar levels of requirements, overqualified employees are healthier, more strongly work and career-minded, more likely to participate in on-the-job training, and have longer periods of tenure with the same firm than their correctly allocated colleagues.

42. These findings are consistent with the hypothesis that, to a large extent, over-education is part of a natural process of transition from school to work. However, further research needs to be conducted along at least two lines. First, how can cross-country variation in the over-education rate be explained? It is possible that a certain degree of over-education is acceptable but that too much of it signals a more serious problem, thus possibly justifying government intervention. Second, even if over-education is not a new phenomenon and it tends to be transitory, does it not represent a bad use of human capital? A better matching between skills possessed and required may benefit the economy via productivity gains.[15]

Evidence of job shopping

43. Finally, another interesting indicator of the perceived quality of entry jobs is the proportion of young new hires – at their first work experience – who are engaging in on-the-job search for a better employment opportunity. Evidence is available for European countries only and is shown in Figure 19. It emerges that in Italy, for instance, 13% of those in work are looking for another job and values of about 10% can be observed for Greece, Denmark, and Poland.[16] This is consistent with the view that youth are more likely than prime-age or older workers to "shop around" at first, looking for a job that more accurately matches their qualifications, aspirations and preferences.

13. Dorn and Sousa-Pazo, 2005, find – using Swiss data – that individual over-education is only a transitory phenomenon: close to 90% of the affected workers escape over-education within three years of becoming overqualified. However, over-education does appear to strongly increase the probability that a worker will move to another employer or even to another occupation because, in most cases, this move allows affected individuals to find an adequate job/qualification match. Nevertheless, changes in individual matching status do not only occur in the rather rare situations of occupation or employer change. On the contrary, many individuals move into, and out of, over-education while remaining with the same employer and working in the same occupation. This finding is consistent with the notion that workers will become overqualified for their present job if the job requirements are not adjusted to their continuously growing individual qualifications. Other authors – notably Cardoso, 2004 for Portugal – support the temporary nature of individual over-education. On the other hand, Sloane *et al.* (1999) find evidence that despite increased mobility, overeducated workers tend to be stuck in a secondary sector with little chance of truly escaping over-education.

14. One common finding of these studies is that the returns to surplus schooling are positive, but smaller than those to required education (see also Bauer, 2000, and Sloane *et al*., 1999).

15 . Further work is being carried out by OECD on this topic and a Secretariat working paper should be available in mid-2007.

16 . Only in two countries – Germany and the Netherlands – is the proportion searching on-the-job lower than that for adults. This is likely to be linked to the apprenticeship system, i.e. youth sign a contract to stay with their employer until they complete the apprenticeship.

Figure 19. **Proportion of young workers looking for another job, 2004**

1.4 The demand-side factors influencing youth labour market success

44. While the previous sections addressed supply-side issues, labour demand conditions are an essential element when evaluating the labour market prospects of young people. Indeed, existing empirical studies show that youth employment tends to be more sensitive to changes in the cycle than adult employment (Figure 20). However, there is no indication that youth employment has tended to become even more cyclical over the past decade.[17]

Figure 20. **Youth employment rates tend to be more sensitive to the cycle**

45. In addition to economic expansions, a number of factors should play in favour of youth employment – notably, the reduction in the size of youth cohorts and rising educational attainments in a context of skilled-biased technological change.

Table 3. **Youth employment intensity by industrial sector, 2004**

46. At the sectoral level, Table 3 shows that the two industries with the largest share of youth among their workforce in most OECD countries are *wholesale and retail trade* and *hotels and restaurants*, which tend to pay below average compensation but have moderately expanded over the past decade (see Annex Tables A1.2 and A1.3). Indeed, youth tend to be under-represented in higher-wage sectors such as *financial intermediation* and *real estate and business activities* – the latter being the fastest growing sector in terms of employment shares. In addition, the situation does not seem to have changed substantially since 1994.

47. Overall, hiring of young workers could be hampered by the limited labour market experience they possess. Or, high legal and/or collectively bargained minimum wages could make it too costly for employers to hire and train young people. Not surprisingly, Table 4 confirms that young people at their first labour market experience are more often engaged in on-the-job training than their older counterparts. Only youth, 15-29, who are employed and were in school the year previous to the survey, are included. The proportion among them who have been in training is higher than for adults in all countries. In Denmark, Switzerland, the Netherlands, the United Kingdom and Iceland, more than 40% of youth who are working have participated in training in the reference year, while in Greece, Italy, Portugal and the Slovak Republic the share was less than 10%.

Table 4. **Proportion of workers who received training on the job, 2005**

48. To account for the training needs of young people, some countries have introduced sub-minimum wages for youth. Table 5 presents the ratio of minimum wages to median wages in OECD countries where minimum wages exist and provides the same figure for sub-minimum wages for youth[18] where applicable. France and Australia have the highest levels of minimum wages to median wages, reaching about 60% and the ratio for youth in France is among the highest overall standing at 52%, higher than the adult ratio in

17 . The difference between the youth coefficients for the two sub-periods is not statistically significant.

18. The definition of "youth" for the purpose of minimum wages varies across countries. The maximum age at which the sub-minimum applies varies between 18 and 22, and in some countries the level of minimum wage for youth varies by age – *i.e.* in the Netherlands the sub-minimum varies from 30% of the adult minimum wage at 15 to 85% of the adult minimum wage at 22 (the unweighted average is used for Table 5).

most countries. In general, where a sub-minimum for youth exists, it stands at between 80-90% of the adult minimum wage (for a discussion of the links between minimum wages and youth employment see Box 2).

Box 2. **Minimum wages and youth employment**

The impact of minimum wage legislation on youth employment is theoretically ambiguous. While a high minimum wage may increase school dropouts and therefore labour force participation, it can also drive a wedge between youth labour costs and their expected productivity, thereby raising unemployment and discouraging some of them to enter the labour market. Manning (2005) also shows that, in a situation where employers have significant market (or monopsony) power over their workers, a well-chosen minimum wage can actually raise youth employment.

The balance of empirical evidence suggests that too-high minimum wages have a negative impact on youth employment. For example, several cross-country or cross-region empirical studies have identified negative effects of minimum wages on youth employment (*e.g.* Abowd *et al.,*1997, OECD, 1998; Neumark and Wascher, 1998 and 1999, Kramarz and Philippon, 2001, Pabilonia, 2002). However, it should be added that some of these studies though some have failed to find significant negative employment effects (*e.g.* Card and Krueger, 1995, Stewart, 2003, Hyslop and Stillman 2004). In this respect, recent evidence from the OECD (see Bassanini and Duval, 2006) finds some evidence that higher minimum wages may lower the employment rate of youth (in the study, the 20-24 age group).

As a result, for youth and other disadvantaged groups – notably the low-skilled – some envisage reducing the minimum wage. Target-efficiency considerations reinforce theoretical arguments for establishing a youth sub-minima (Neumark and Wascher, 2004, Pabilonia, 2002), because the association between holding a minimum-wage job and poverty is especially weak for the very young (who often live with their parents). As was mentioned above, evidence for job losses caused by too-high minimum wages also tends to be strongest for youth.

However, a youth sub-minimum wage could reduce the attractiveness of work compared to welfare receipt for some groups (for example, young people). For this reason, some combined policies can be envisaged to limit the negative effect that too-high minimum wages can have on youth employment, *i.e.* the introduction of employment-conditional benefits combined with an appropriately set wage floor. Indeed, these benefits may increase labour supply but, by doing so, are also likely to put downward pressure on wages. Thus, some of the positive repercussions expected from these benefits might be cancelled out by the drop in wages at the bottom of the wage ladder. Hence, it may be desirable to set a wage floor below which employers cannot go (*i.e.* a minimum wage). This is in fact the option chosen by the United Kingdom, which introduced a minimum wage just as its tax-credit policy was being extended (European Commission, 2000). Various evaluations consider this to be a sound option, stressing its beneficial impact on low wages with no apparent negative repercussions on employment (UK Low Pay Commission, 2001). The level of the minimum wage is key to its effectiveness and has to be set in line with the earnings distribution is key. An alternative to avoid a sub-minimum wage would be to offer employers a reduction in non-wage labour costs for those youth employed at or around the minimum wage.

49. In some countries, the sub-minimum is related not to age along but to experience in work or tenure. In Korea, workers younger than 18 receive a sub-minimum wage for the first 6 months of employment only. In France, only 17-18 year-olds with less than 6 months experience can be paid 90% of the adult minimum wage. In Poland, youth can be paid 80% of the minimum wage for the first year in their first job, rising to 90% for the second year. This is an interesting approach as it allows sub-minimum wages to be targeted only to those who have strong training needs – *i.e.* first entrants into the labour market or new hires - and avoids discrimination based solely on age.

Table 5. **Minimum wages for adults and youth in OECD countries, 2005**

50. Strict employment protection legislation may also represent a disincentive for firms to hire workers whose skills are not observable (see OECD, 2004). Figure 21, Panel B, shows a positive correlation between the time needed to find job (as calculated in Table 1) and the strictness of regulation on temporary work. This is in line with the view that there may be a trade off between precarious entry jobs and unemployment. Transition time to permanent employment is also shown to be related to the strictness of regulation on permanent work (Panel A), in line with the idea that where permanent

employment is strictly regulated, youth tend to spend more time on temporary jobs before obtaining a permanent contract.

Figure 21. **Length of transition from school to work and strictness of Employment Protection Legislation**

2. News from the policy arena

51. The OECD is presently starting a thematic review of policies to facilitate the transition of young people from school to work, and concrete and country-specific recommendations will emerge from the thematic review.[19] As a result, this policy section only looks at policy areas where there have been some interesting recent developments and the section is not intended to provide an assessment on what works and what doesn't. This includes recent initiatives to revive the long-under-strain apprenticeship system in Germany and new evidence on the effects of the United Kingdom's main active labour market programme for youth – the New Deal for Young People.

2.1 "Dual systems" based on apprenticeships as a gateway to work

52. Systems where class-based and work-based training are provided in parallel are known as "dual" systems. In a "dual" system framework – typical of Austria, Denmark, Germany and Switzerland and more recently Norway – youths spend some time in educational institutions and the remainder at the workplace. Apprenticeships are then part of the formal educational structure, and are usually entered into after completion of compulsory education. They involve an employment relationship *plus* formal schooling – normally one and a half to two days per week – over a period of three or sometimes four years. At the end of the programme, apprentices graduate through a final examination in which they have to prove their theoretical and practical grasp of the occupation concerned (see Box 3 for a more detailed description of the German "dual" system).

53. Dual systems have proven quite successful in giving young people a good start in the labour market. Indeed, Denmark, Germany and Switzerland are among the OECD countries with the lowest unemployment rates for youth and Austria is still well below the OECD average for the same indicator (Figure 1). In addition, Austria, Denmark and Germany are among the countries with the lowest share of youth experiencing repeated unemployment spells (see Table 2). Avoiding early labour market difficulties is particularly important for youth as a rich literature shows that long unemployment experiences at labour force entry may have persistent effects on employment likelihood and wages later in life.[20]

54. Adding to an already rich literature, recent empirical findings provide further support for the idea that apprenticeships have a positive effect on early career unemployment outcomes. Van der Velden *et al.* (2001) also show that European countries with apprenticeship systems enjoy better youth employment patterns, particularly in terms of larger employment share in skilled occupations and in high-wage sectors, than do those with little or no apprenticeship. Along similar lines, Gangl (2003) carries out a study of labour market outcomes of different types of school/work-based qualifications – including apprenticeships – for 12 European countries, and finds that apprenticeships perform rather favourably both compared to school-based education at the same level of training and across different qualification levels. Gangl also reports that, after controlling for institutional and structural factors, apprenticeships produce a significant

19. A synthesis report to be published in late 2009/early 2010 will compare findings for the participating countries and collect policy prescriptions as well as examples of good practices.

20 . See Nerendranathan and Elias, 1993, Gregg, 2001, and Gregg and Tominey, 2005 for the United Kingdom, Balsam *et al.*, 1996 for France, and Andress 1989 for Germany.

reduction in early career unemployment rates (see also Ryan, 2001). Ryan (2001) and Steedman (2005) put forward the argument that part of this effect may come through a better matching of training to labour market demand that results from apprenticeship training being contingent on the offer from employers. However, the evidence shows that effects of apprenticeship training on long-term employment outcomes and on post-apprenticeship wages are more mixed (see Ryan 2001).

Box 3. **Main features of the German "dual" system**

In Germany, people older than sixteen can enter the apprenticeship system, through which they are able to combine work-based and class-based training to acquire the vocational skills required on the labour market. Their pre-entry educational level does not formally determine their possibilities to enter the dual system, but it does influence their chance to find a training place.

Employers are not obliged to hire apprentices, but if they do so they must let them go to school during work time and have to provide the enterprise-based part of their training according to national standards – *i.e.* only a certified teacher, who has completed apprenticeship training and has obtained the Trainer Aptitude or the *Meister* certificate, is allowed to give enterprise-based training and the contents of enterprise-based training are determined per occupation. Over time, the ways to provide enterprise-based and school-based training have become more diverse. Nowadays, parts of enterprise training can be provided through extra plant training centres in order to improve the quality of training and to facilitate the provision of some parts of the training for small or medium-sized firms.[a] And, on the other hand, some (larger) firms also provide the school-based part of the training *within* the firm.

Regulations related to the contents of enterprise-based training are determined at the federal level, jointly by government, employers and unions representatives.[b] This is exceptional because almost all aspects of the education framework are regulated by the *Länder*, including legislation, regulations, curricula, standards, assessment procedures and quality control. While this implies that training curricula change slowly, it does not necessarily hinder the adaptability of individual firms to changing skill requirements, because regulations only relate to the provision of minimum standards. Individual firms can choose their own training methods and improve the required minimum training quality.

Training costs are shared between the government and employers: the governments of the *Länder* pay for the school-based component, while employers finance enterprise-based training, such as pay for apprentices, instructor salaries and equipment. The rules governing the payment of trainees are crucial in the functioning of apprenticeship programmes, as firms face large costs of apprenticeship training that might be lost because of turnover upon training completion. As a result, low labour costs –and an appropriate division of funding responsibilities between public and private counterparts– are essential for a system of apprenticeship to work. The salaries of apprentices are relatively low – in the range of 25% to 45% of the average wage of a qualified worker in the same occupation (see Ryan, 2000).[c] The wage and work conditions for apprentices are determined per occupation, with collective bargaining agreements specifying the (minimum) apprentice wage. In this sense, unions have been a key partner in the success of the apprenticeship system in Germany.

At the end of the apprenticeship period, qualifications are awarded on the basis of written and practical examinations, set and marked by external examiners, *i.e.* the examiner is another person than the teacher. All parties – government, unions and employers – intervene in this final stage of the apprenticeship process. So-called competent bodies (mostly chambers of commerce) issue certificates, which are recognized throughout Germany. After graduation, workers can apply for a skilled worker's job with their current employer or look for a job with another employer. A job with the current employer is not guaranteed because apprentices have a labour contract of limited duration. Skilled workers also have the possibility to participate in adult education. On the labour market, there are clear links between the skilled worker status ('Facharbeiter') and the contents and status of a skilled worker job.

a) Public funds were used to build and equip these centres.

b) The institutional complexity of the German apprenticeship system requires government, employers and unions to work together at several stages in a cooperative way. As a result, a positive climate among these parties is essential to its success.

c) Similar systems of cost-sharing are in place in other countries that have successfully implemented vocational training systems. For instance, in Denmark and Ireland, statutory levy-grant systems redistribute part of the training costs to employers who do not provide training, but who stand to benefit from a higher stock of qualified labour. At the same time, apprenticeship pay tends to be higher in these countries than in Germany – notably, 51-54% of workers carrying out the same tasks for Denmark and 60% for Ireland. What is clear is that the system has to be designed in a way that costs are shared by all the parties who benefit from apprenticeship training.

55. Despite working relatively well up to the end of the 1990s, the shortfall of openings for apprentices, particularly acute since 2000, has recently put strain on dual systems in countries with a long tradition of dual education. The labour market position of youth in these countries has worsened somewhat since and some analysts have started talking about a serious crisis in the system.

56. The number of apprenticeship places within the dual system depends heavily on the economic outlook for the country, and is also affected by the ongoing specialisation of companies. For instance, in Germany, companies that specialise in a small market segment are deemed unable to properly equip youth with all the skills required by the profession and are therefore not allowed to train apprentices. Rather than a mismatch in training places available and demanded, there is evidence for a structural mismatch between the broader educational requirements of apprenticeship education and those parts of the curriculum that an increasing number of companies can cover.

57. Furthermore, some institutional features of the apprenticeship model make it difficult for firms to use it as product market competition increases. First, more and more companies find the effort and the responsibility of training an apprentice too high and, given the need to respond quickly to changing market conditions, an apprenticeship lasting three years or more is often seen as too long. This is particularly true for small and medium-sized enterprises which are hard to motivate to engage in training youth. As a result, many employers prefer to recruit skilled workers on the labour market than to train them through an apprenticeship. Finally, companies often complain that the low quality of compulsory schooling is not compatible with the growing skill requirements of the economy.

58. The lack of apprenticeship places is even more worrying if one considers that a large proportion of those not finding a place in the dual system consists of youth belonging to disadvantaged groups – *i.e.* persons who could not fulfil the requirements of the apprenticeship contract because of physical or mental disabilities, youth with specific cultural or social problems, etc.

59. Faced with these problems, the German Government signed in 2004 an agreement with the social partners on lines of action to revive the apprentice ship system, the National Pact for Training and Young Skilled Staff (see Box 4). The aim of the agreement is to guarantee that a sufficient number of apprenticeship places are available by means of maintaining employers' interest and involvement. Adapting curricula to the training potential of firms as well as considering shorter apprenticeships are part of the Pact. This agreement also points to a central feature of the apprenticeships model: social dialogue. Indeed, the long history and institutional complexity of German apprenticeships leads one to conclude that apprenticeships can thrive only in the presence of powerful employer associations, the involvement of all social partners and the long familiarity with the systems.

60. Another potential way of increasing the supply of apprenticeship places is via public financing of further educational forms besides the dual system. It is important for young people who could not get an apprenticeship place to have the opportunity to enter high-quality vocational education and training if they so wish. This is the case of Norway where the "2+2" scheme (so-called Reform 94, introduced in 1994) implies that students in vocational tracks spend two years in school and one or two years as apprentices in an enterprise. In Norway, it is the school authorities in each county that have to find a sufficient number of apprenticeship places to satisfy demand from students. If the places cannot be found, the authorities must, as an exceptional provision, arrange this part of the students` education to take place in school. Common curriculum plans for both the school part and the apprentice part of the vocational education have been developed.

Box 4. **The National Pact for Training and Young Skilled Staff in Germany**

The lack of sufficient apprenticeship places has been an issue in Germany for several years while demand continued to rise. In 2002, the number of apprenticeship places fell by 48,500 places and in 2003, by another 15,000. To look into the causes of this mismatch, a representative survey of 785 firms was conducted by the Cologne Institute of Business Research in spring 2004. The survey found that 61% of the establishments surveyed regarded more intensive advice for youths about their career choices as particularly important; 54% of them demanded that proficient trainees should have more opportunities during the training period to gain additional qualifications; 50% thought firms should have greater discretion in the organisation of their training; 47% wanted to see a greater emphasis placed on the practical aspects of the training within a shorter training period for those trainees performing well.

Acting on these alarming figures, the German government started talks with trade unions and employer organizations, during which many of the points emerging from the survey were reiterated. The talks ended in June 2004 with the National Pact for Training and Young Skilled Staff (NPTYSS) which committed employers to offering sufficient apprentice places to meet demand over the following three years and the Government to reshape the apprenticeship framework. The Government committed to paying particular attention to employers changing needs in reforming the system so that the system would be better adapted to new skill requirements and work organisation and would attract high-quality entrants.

Results came very quickly. In 2004, the German Ministry of Education recorded an increase in the total number of apprenticeship places available, the first increase since 2000. However, more needs to be done to ensure that these improvements are not just transitory. To this end, since 2004 the Federal Government has been carrying out training campaigns jointly with Employment Agencies and Chambers of Commerce. The Training Campaign has focused on three main priorities: i) selected regions with a particularly poor supply/demand ratio or an above-average decrease in training places; ii) new growth branches, e.g. Microsystems technology, nanotechnology, biotechnology and optical technology but also branches where more training places are offered than are demanded; and iii) specific groups, such as disadvantaged youth and young people and company owners with a immigration background.

One example of the initiatives of the NPTYSS is the so-called Jobstarter programme, managed by the Federal Ministry of Education and Research, which aims at: i) providing nation-wide funding for innovations and structural development in vocational education; ii) a better regional supply of in-company training places for young people by means of motivating companies to provide training. The programme will focus on funding regional innovative and demand-oriented new initiatives (up to 100 million euros over 2005-2010), so that vocational training can be seen by employers as an instrument to cope with structural change. Jobstarter also strengthens regional responsibilities in training.

It is hard to say whether these initiatives will be successful in modernizing the apprenticeship system in a way that it overcomes its present crisis but the fact that social partners concerns are taken account of is indicative of a first step forward.

2.2 Activation policies for youth

61. Labour market programmes offer jobless and disadvantaged workers in general, and youth in particular, various mixes of job-search assistance, work experience, job training, remedial education and direct job creation. Over the past two decades, policy effort has focused more and more on the interaction between passive and active measures, following the "mutual-obligation" principle. In this respect, youth have often been a prime target group for active labour market policies (ALMPs).

Table 6. **Public spending on youth labour market programmes, 1995-2002.**

62. In about two thirds of the countries for which data are available (see Table 6), the share of ALMPs expenditure devoted to youth programmes increased between 1995 and 2002. In France, Portugal and the United Kingdom, more than a third of all expenditure on ALMPs goes towards programmes focusing on youth. Expenditure on youth ALMPs as a percent of total ALMPs expenditure has more than doubled in Australia, Austria, Germany, Japan, New Zealand, Sweden and Switzerland. It is noteworthy that in some of these countries – notably Austria, Germany, Switzerland and Japan – this higher

expenditure came following a weakening of traditional school-to-work transition mechanisms. With the exception of Sweden, in countries where expenditure on youth programmes rose relative to adult ALMPs, the overall public spending on ALMPs rose as well.

63. As the expenditure data suggest, several countries have come to realise that, for those who are already out of the education system – particularly youth leaving school without an upper secondary qualification – active labour market policies as opposed to passive ones constitute the best option. However, while there is general agreement that focusing on activation and mutual obligation *policies* is the way to go (see OECD, 2006), this does not necessarily imply the proliferation of *programmes*, rather it should rest on a concentration on the most effective ones. This, in turn, puts a premium on knowing what works and what does not for youth. Drawing on evaluation of existing programmes is thus fundamental in highlighting what works and what does not and in setting guidelines for future action.

64. Pioneers in the activation approach to labour market policies, Nordic countries have attempted for many years to implement so-called "youth guarantees".[21] Under such guarantees, the government commits itself to offer youths in a defined target group – which may be all who are registered unemployed and claiming unemployment insurance or social assistance benefits, or all who are not in education or employment in the years shortly after leaving school – a place in an education, training or work programme.

65. Evaluation results for such programmes vary widely, pointing to the varying effectiveness of the programmes in question as well as to fundamental issues of programme design and implementation (OECD, 2002). A study by Hamalainen and Ollikainen (2004) of ALMPs for youth in Finland indicates that job-placement into private sector jobs and short labour market training experiences (up to five months) are successful not only in promoting employment but also in increasing the earnings of participants.[22] This is at odds with negative or zero returns to youth training programmes found for Swedish programmes. In fact, in Sweden, evaluations have shown that if activation programmes work better for youth than for adults, this is mostly due to pre-programme deterrence effects and/or more intense job-search support to youth from the public employment services before the programmes (see Forslund and Nordstrom Skans, 2006).

66. Australia's Mutual Obligation policy, in place since 1998, requires 18- to 24-year-olds (as well as 24-34 year-olds since 1999 and 35-49 year-olds since 2001) to undertake an additional activity after six months on unemployment benefits, and for 6 months of every 12 months spent on unemployment benefits. All job seekers in the target groups must participate in an interview at Centrelink – the Australian benefit agency – which informs them of the requirement to undertake an additional activity. Activities include part-time work, voluntary work, education and training or participation in a community-based employment

21 . In 1984, Sweden introduced "the first genuine youth guarantee", followed by Norway in 1993 and Denmark and Finland in 1996. Some difficulties were encountered in implementing these guarantees at first and also in maintaining them through the recession of the early 1990s, but youth cohort sizes were falling and by the mid-1990s sufficient places to implement these guarantees were generally available, facilitating a shift to policies that require youths to participate in either education or the labour market. However, these "guarantees" did not rest on a mutual obligation *cum* activation approach and there is little rigorous evidence to suggest that they worked.

22 . On the other hand, youth practical training – the largest and cheapest of all programmes in Finland, lasting up to 18 months and implying no employment contract with the employer providing the training – is not found to have any impacts on young people's labour market trajectories.

program – Work for the Dole – and failure to select and then complete a mutual obligation option may result in a cut in benefit payments.

Box 5. **New Deal for Young People: the United Kingdom approach to ALMPs for youth**

The New Deal for Young People (NDYP) was introduced in spring 1998 with the declared objective of improving employability of youth and helping them find a job. The programme is aimed at young people who have been claiming unemployment benefit (Jobseekers Allowance – JSA) continuously for six months. Participation is mandatory. Early entry to NDYP is possible and there are 11 groups who are entitled to enter NDYP before reaching the standard six-month entry point. Early entrants include people with disabilities, lone parents, ex-offenders, ex-members of the regular armed forces, people with literacy or numeracy problems and those meeting a range of other criteria.

Eligible job seekers are first put into a four-month programme with a New Deal Personal Adviser called Gateway. The purpose of this initial phase to develop an individually tailored plan for improving the jobseeker's employability. At the end of the Gateway period, young jobseekers who have not found unsubsidized work can choose one of four options: subsidised work, full-time education and training, work in the voluntary sector or work with an environmental task-force.

All these options continue to be subject to JSA rules, such as the obligation to actively seek work, irrespective of the financial arrangements for the specific option. If a young person completes or leaves an option and still has not obtained a job, they can reclaim JSA (if previously paid a wage) and enter the Follow-Through period. During Follow-Through, they receive further intensive help with job search in order to find a job, re-enter an option or even, in some cases, return to the Gateway.

A notable feature of the NDYPis the extent of involvement by employers. In 2000, 60,000 employers had already undertaken to provide employment opportunities for NDYP participants. This involves signing a New Deal Employer Agreement provided by the Employment Service. The agreement is a commitment to quality from both sides. It sets out the terms and conditions of the NDYP subsidised employment under which employers agree to treat NDYP employees in the same way as other employees and, wherever possible, to continue their employment after the end of the subsidy period, subject to commitment and aptitude. In return, the Employment Service promises to make subsidy payments accurately and on time.

Assistance available to employers in the UK consists of a subsidy of up to GBP 60 a week for six months and an additional contribution of up to GBP 750 is also available towards training of a young person. There is a strong emphasis on the obligation of employers to provide training leading to formal qualifications, with a strict requirement for employers to provide a minimum of one-day training a week which must lead to the equivalent of a National Vocational Qualification. This training can take place in the workplace or at a college. The training provided by employers is constantly monitored and reviewed and if an employer is found not to be meeting these requirements, the subsidy is withdrawn.

Wilkinson (2003) estimates the impact of the NDYP on the probability of being unemployed six months after reaching the qualifying time for the programme – coinciding with movement from the Gateway period into the options. The results indicate, for men, a reduction in unemployment of around 30,000 and, for women, a reduction of around 9,000. A longer follow-up period produces a lower reduction in the probability of being unemployed, mostly due to the fact that some NDYP participants would have returned to claim unemployment benefits subsequently. The same study also finds pre-programme effects, with 25,000 fewer young people remaining unemployed for six months in the year after the introduction of the NDYP than in the preceding two years. As for overall changes in employment, the paper finds no overall effect for men and an increase in women leaving unemployment for work of about 3,000.

Another study, by Blundell *et al.* (2001), finds that the impact of the NDYP on the exit rate from unemployment to employment after four months spent in the Gateway stage is a 20% higher probability of finding a job, with most of this gain being due to the subsidised employment option.

A recent report from the National Centre for Social Research in the UK highlights the importance of the Gateway process. The report collects evidence showing that young people see the key to the success of NDYP as the personal relationship between the Personal Adviser and the jobseeker. The study also noted that the effectiveness of Gateway stems from ensuring that people are not forced into accepting any job but are matched to the one that suits them. Other important aspects of NDYP options reported on favourably by young people were the experience under the employment option, good work-based training opportunities to develop skills and gain qualifications through the full-time education and training option, and continued support once in a job.

On the negative side, some researchers argue that the programme flexibility in offering youth different options to exit unemployment only applies in theory. Indeed, the choice for youth particularly at risk of repeated spells of unemployment and inactivity remains restricted to those options that are less likely to help them get unsubsidized employment.

67. Evaluations up to now have pointed to several weakness of the Australian Mutual Obligation programmes. Borland and Tseng (2004) find a negative effect of Work for the Dole on exits from unemployment during programme participation, although partial catch-up is observed for participants after the conclusion of the programme. These disappointing outcomes can be blamed on the lack of focus on employment outcomes and on the limited involvement of private sector employers in the mutual obligation options. For example, Work for the Dole projects are selected on the basis that the work that they provide does not actively compete with jobs in the private sector. This requirement remains a problem as it favours unskilled work with little opportunity for training which may prevent the subsequent integration of the unemployed into productive work.

68. The New Deal for Young People (NDYP), introduced in the United Kingdom in 1998, is directed to youth who have been for a certain number of months on income support or unemployment benefits, and aims at providing them with several options to raise labour market involvement. Recent evaluation studies offer positive results (see Wilkinson, 2003, Blundell *et al.*, 2001, and Van Reenen, 2003), in terms of getting participants back to work faster than when they did not benefit from the programmes. See Box 5 for a more detailed description of the programme and recent evaluations of its effectiveness.

69. Trying to sum up what works and what does not is an arduous task but drawing on the several evaluations of existing programmes, successful programmes appear to share some characteristics (see Martin and Grubb, 2001, and Betcherman *et al.*, 2004):

- *Early* action is particularly important for young people as those without work experience are generally not entitled to unemployment benefits or other welfare transfers.[23] A number of OECD countries already have major programmes for youths that come into play early, often before or at six months of unemployment, *e.g.* Australia, Belgium, Denmark, New Zealand, Norway and the United Kingdom. Sweden uses a shorter period (90 days), and youth activation in Finland, for those without a vocational qualification, starts immediately.

- In terms of content, job-search assistance programmes are often found to be the most cost-effective for youth, providing positive returns on both earnings and employment. On the other hand, some wage and employment subsidy programmes do yield positive returns, but they generally tend to perform poorly in terms of their *net* impact on the future employment prospects of participants.

- Training programmes should be designed in connection with local or national labour market needs. In this respect, mobilizing and involving the private sector and communities to assess local or national demand for skills and community needs is most important to project design.

- Good *targeting* of the programmes is also crucial. For instance, there is a need to distinguish between teenagers and young adults and to focus on early school drop-outs. Specifically, the most desirable solution to the employment problems of teenagers is to help them to remain in school and acquire educational qualifications, whereas for young adults, help to acquire work experience is more important.

23. For instance, in France, 6 months of work are required before entitlement is attained and only 25-year-olds or older are entitled to the means-tested minimum income benefits (RMI). Also, in Belgium school leavers are entitled to payment of benefits even without previous contributory history but only after one year of non-employment.

- Tight work-search requirements tend to encourage early exit from unemployment, as much for youths as for adults. Indeed, in Australia, when "mutual obligation" requirements were applied to youths who had been unemployed for six months, an increase in the rates of exit from unemployment was observed (see QED, 2003).

- Programmes that integrate and combine services and offer a comprehensive "package" seem to be more successful. An example of comprehensive programme introduced over the past decade the New Deal for Young People in the United Kingdom (see also Box 4).

- Greater involvement of the social partners, as well as the public authorities at all levels, can help enhance the effectiveness of programmes. A tightly controlled system of certification to ensure the quality and relevance of training programmes may also contribute to the same goal (OECD, 1996 and O'Higgins, 1997).

70. Two weaknesses of ALMPs for youth remain unaddressed: they can be rather expensive, and even the best performing programmes have found it extremely difficult to tackle the problem of very disadvantaged youth. With regard to the former, particularly when spending is high, policy assessments need to consider how far any reduction in unemployment has come at the cost of an increase in "hidden" or "disguised" unemployment – *i.e.* individuals who exit unemployment to participate in unproductive or excessively lengthy education and training. It may be possible to limit costs if, faced with an activity obligation, some young unemployed people find an unsubsidised job instead and relatively few enter expensive job-creation options.

71. As mentioned above, even the best performing programmes, when evaluated, often fail on their ability at helping youth at risk. This is the case, for example, for the UK's NDYP. The most effective option made available to participants in this programme appears to be subsidized private-sector employment. However, this option is often available to youths who would have exited unemployment even in the absence of the programme. And, youth at high risk of labour market exclusion are most often directed to subsidized jobs in the non-profit sector or other options less likely to favour full-time permanent employment. For this reason, the NDYP programme has been accused of increasing labour market segregation for those youth who are most at risk, by sanctioning them when they are not successful in getting permanent employment (see Glyn and Wood, 2001).

72. What has emerged from evaluation of several programmes is that the neediest youth need to be identified as early as possible during the unemployment experience and provided with specific attention and focused – as far as possible, personalised – help. Among programmes targeted specifically to disadvantaged youth, there is evidence that residential programmes may yield positive returns. Job Corps in the United States is an example of such programmes. It consists in taking disadvantaged youth out of their regular locality, giving them mentoring, work experience and remedial education. Several rigorous evaluations[24] have found that Job Corps has yielded positive labour market returns – both in terms of employment and wages – as well as high social returns (including favourable effects on crime, drug use and violence.

24 . See Schochet *et al.* (2000 and 2001) and Lee (2005).

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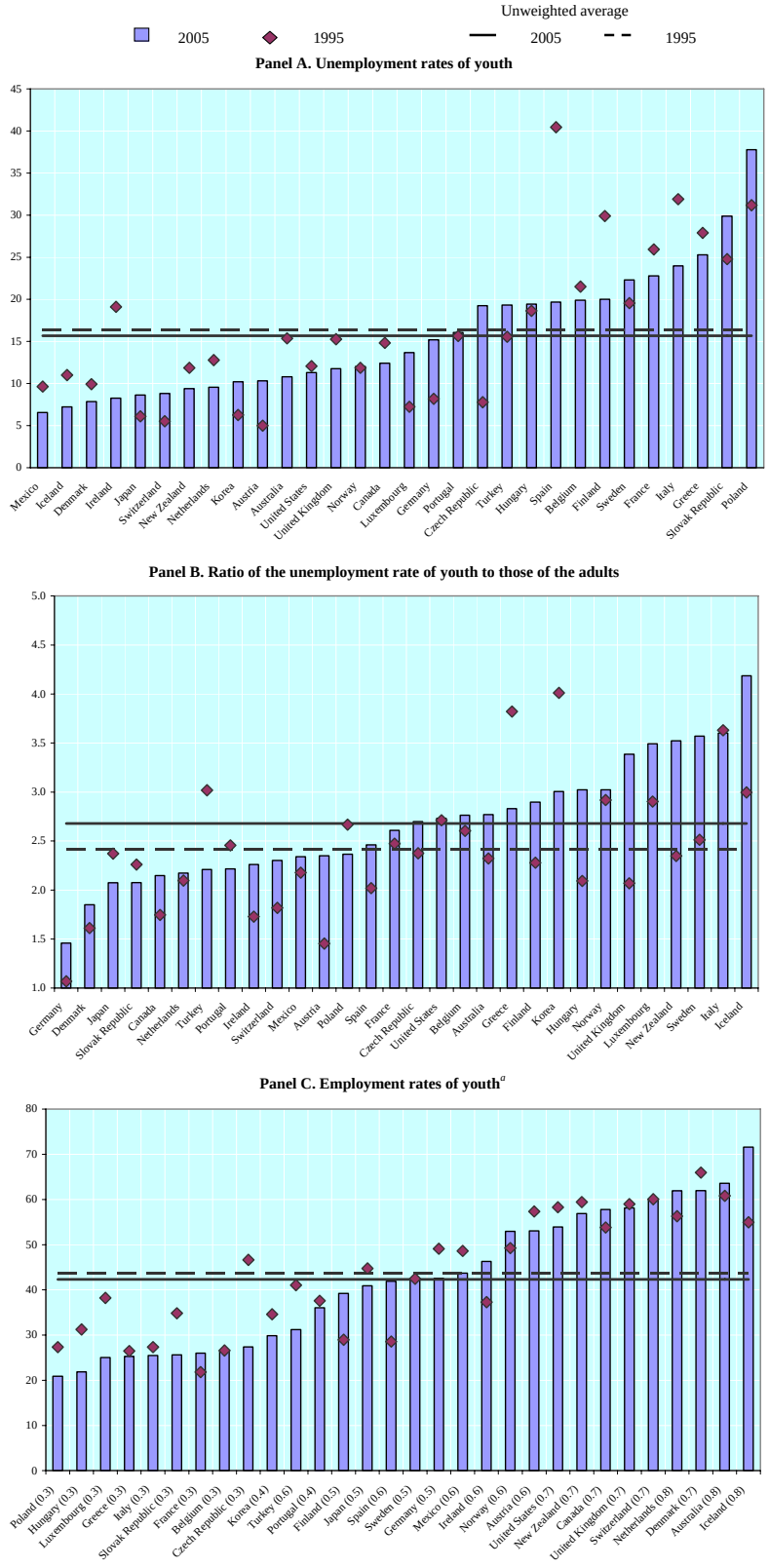
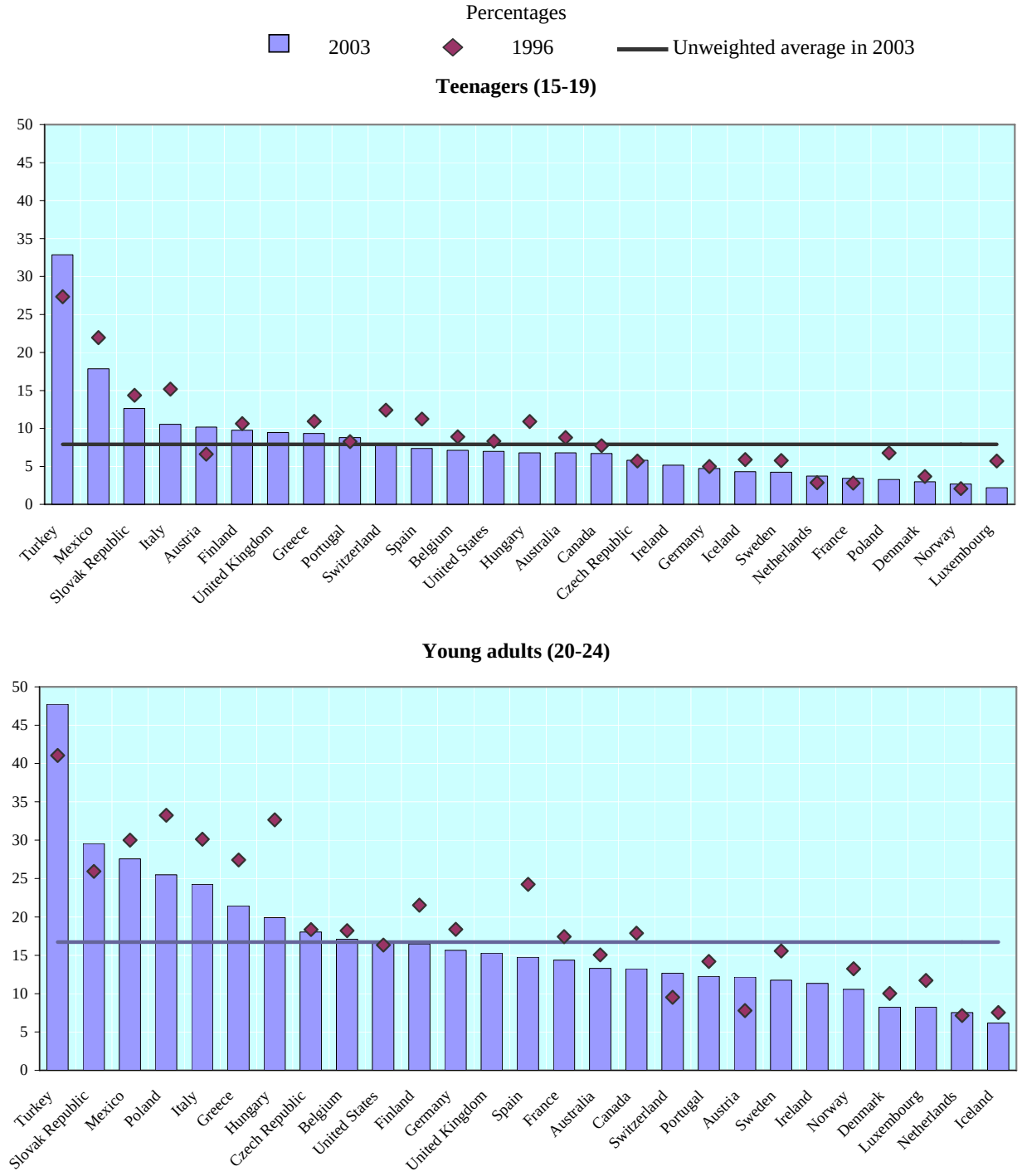
Figure 1. **Unemployment and employment rates of youth in OECD countries, 1995 and 2005**



a) Values within parenthesis are the ratio of the employment rates of youth (15-24) to those of the adults (25-54) in 2005.
Source: OECD database on Labour Force Statistics.

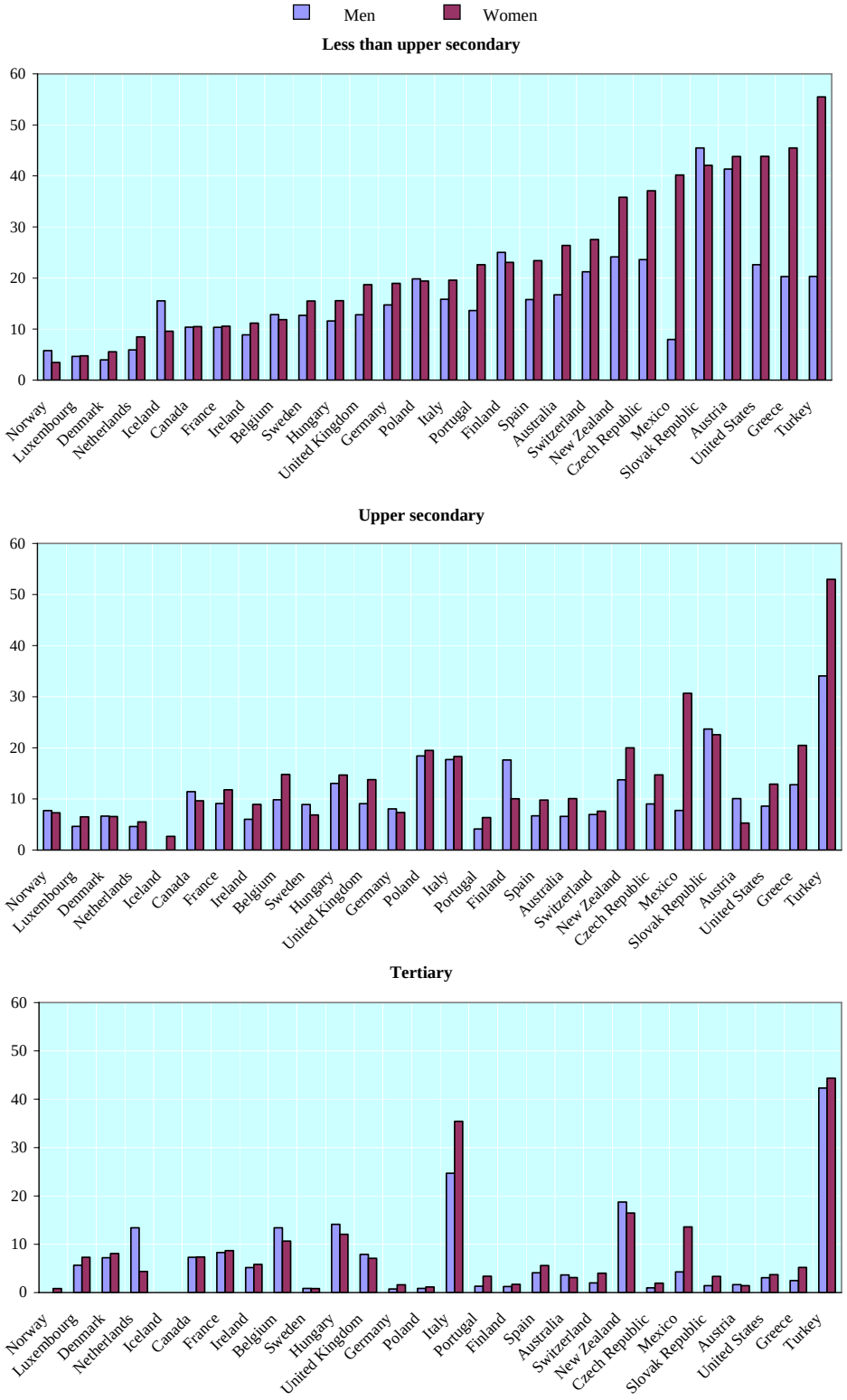
Figure 2. **Share of young adults and teenagers neither in education nor in employment, 1996-2003** [a]



a) For France, Iceland, Italy and the United States, data refer to 2002 instead of 2003; For Germany, Finland and the Netherlands, data refer to 1997 instead of 1996; for Austria and Italy data refer to 1998 instead of 1996. For Ireland and the United Kingdom, data are not available for 1996.
Source: OECD database on Labour Market Status by Educational Participation.

Figure 3. **NEET rates by educational level and gender, 2003** [a]

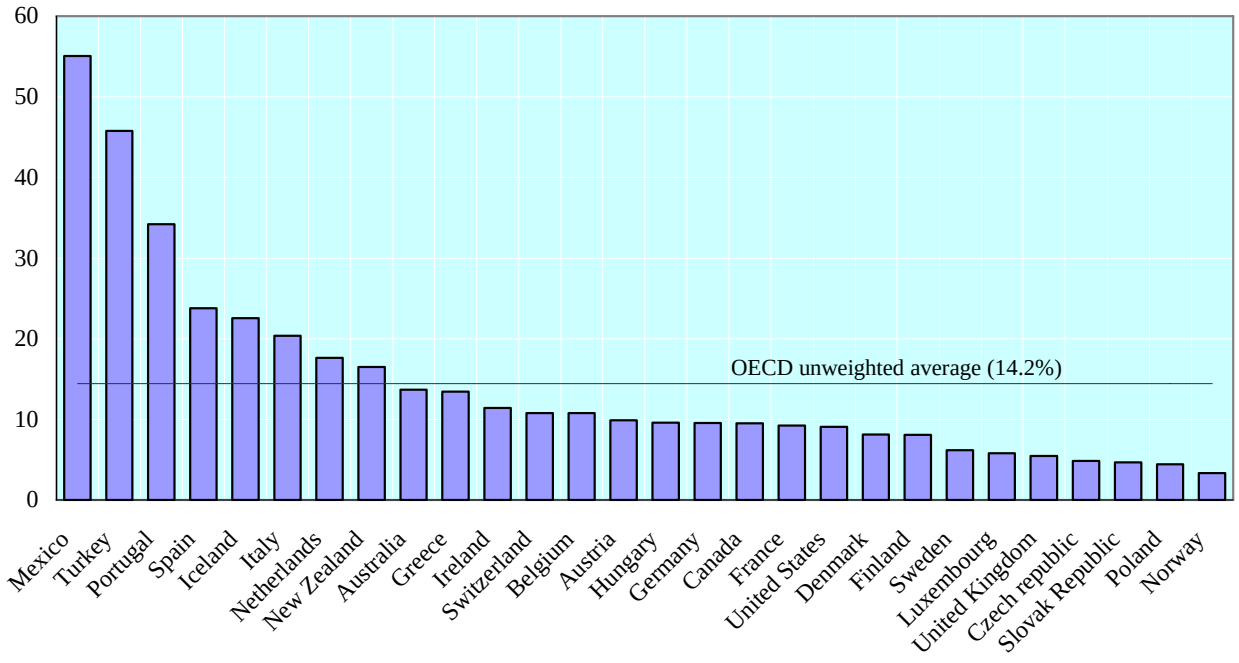
Share of youth aged 15 to 24 neither in education nor in employment, by gender and level of education [b]



a) For Iceland, Italy, the Netherlands and the United States, data refer to 2002; for New Zealand data refer to 2001.
b) Countries are ranked by ascending share of women aged 15 to 24 neither in education nor in employment.
Source: OECD database on Labour Market Status by Educational Participation.

Figure Box1. **Share of youth leaving school without basic skills, 2003** [a]

Share of youth aged 15 to 24 not in education and without upper secondary education



a) For Iceland, Italy, the Netherlands and the United States, data refer to 2002; for New Zealand data refer to 2001.
Source: OECD database on Labour Market Status by Educational Participation.

Table Box.1. **Share of 16-year-olds who are not enrolled in education**

	1998	2003
Countries where the share of young people aged 16 not enrolled has increased in 2003[a]		
Portugal	15.9	16.1
New Zealand	11.5	15.1
Hungary	2.5	7.2
Denmark	6.8	7.2
Australia	2.6	6.8
Norway	5.6	5.9
Netherlands	3.6	5.4
Korea	4.3	5.0
Germany	3.5	3.6
Sweden	2.3	3.2
Countries where the share of young people aged 16 not enrolled has decreased in 2003[a]		
Turkey	56.6	52.4
Mexico	57.6	51.1
Italy	21.9	13.0
United Kingdom	19.4	11.7
Switzerland	9.6	9.5
Austria	11.3	9.0
Iceland	10.5	8.4
Spain	12.2	8.3
United States	16.0	7.5
Greece	10.1	6.0
Poland	10.1	4.5
Finland	10.8	3.8
France	4.7	3.7
Ireland	8.6	3.7
Japan	3.7	2.3
Czech Republic	3.9	0.2
Belgium[b]	5.7	0.0
Other countries		
Canada	1.1	..
Luxembourg	..	13.8
Slovak Republic	..	5.6

.. Data not available.

Note: Mismatches between the coverage of the population data and the student/graduate data mean that the rates for those countries that are net exporters of students may be overestimated (for instance, Luxembourg) and those that are net importers may be underestimated.

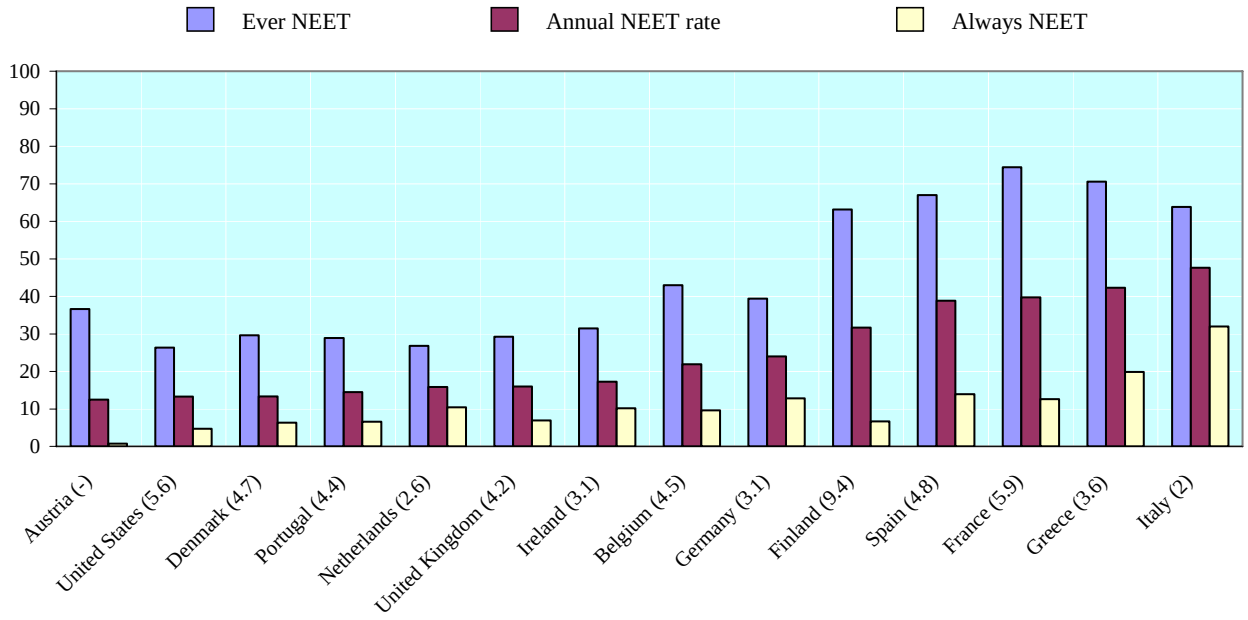
a) Countries are ranked by decreasing order of the share of young people aged 16 not enrolled in 2003.

b) For 1998, Flemish Community only.

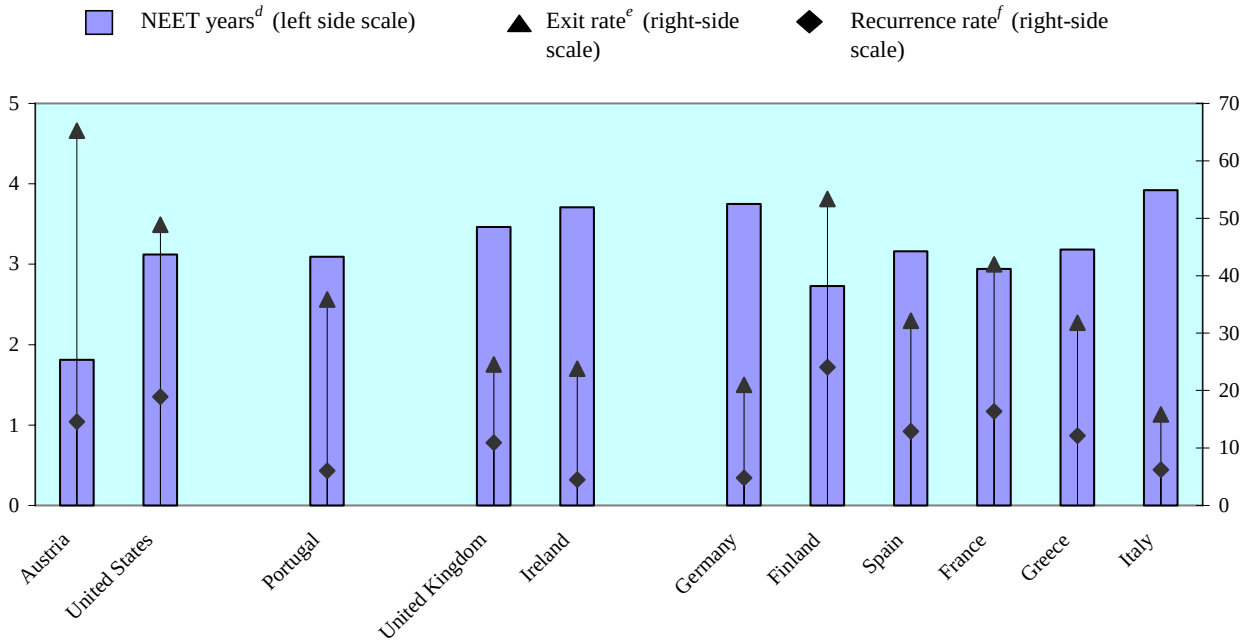
Source: OECD, *Education at a Glance:* Indicators 2005.

Figure 4. **Alternative incidence measures of NEET status of youth, 15-24, over 5 years, 1997-2001**

Panel A. **Percentage of youth neither in employment and nor in education**[a,b,c]



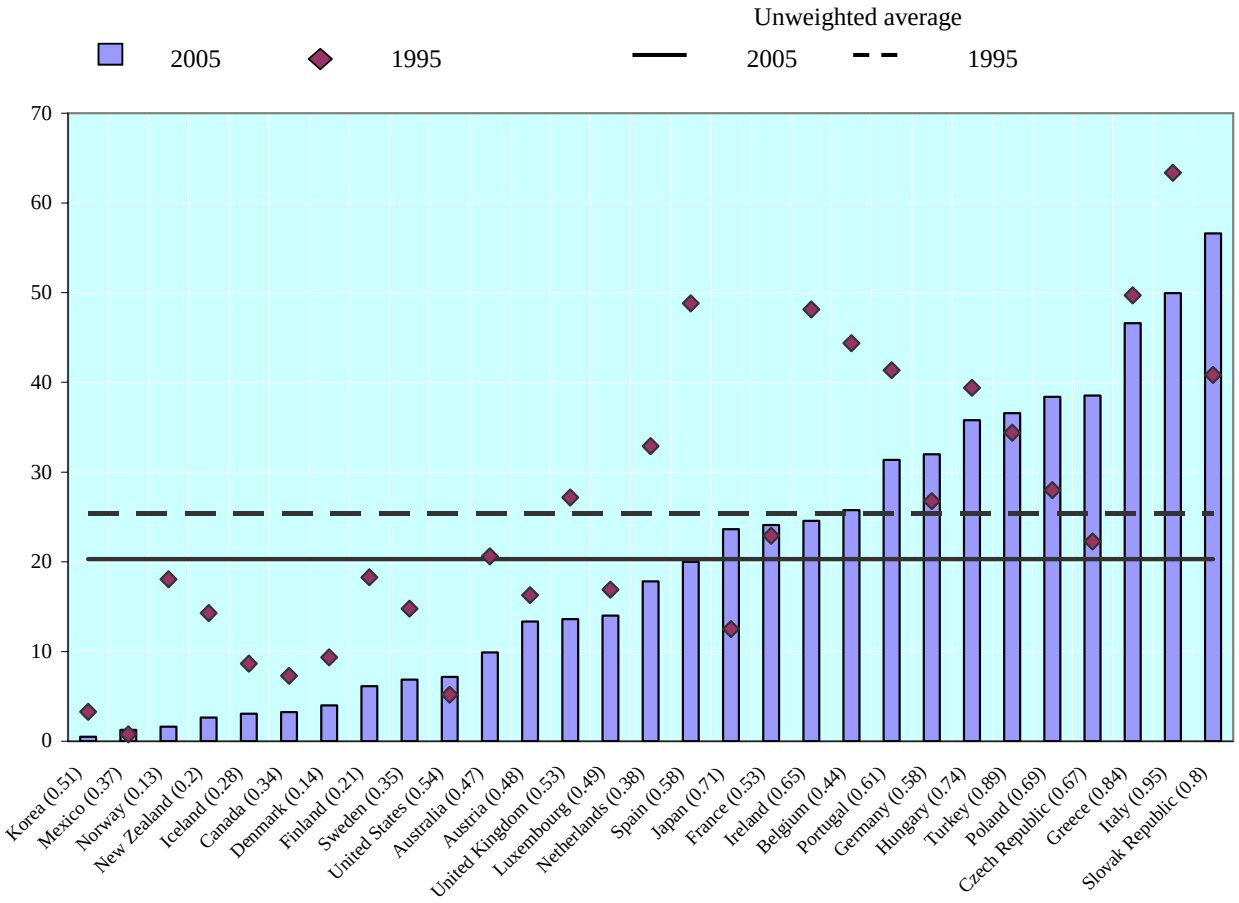
Panel B. **Five-year experience of youth neither in employment and nor in education in the first year**



a) Countries shown in ascending order of single-year of NEET (Panel A).
b) Values within parenthesis below the country labels in Panel A are the ratio of the ever to always NEET rates (an index of turnover in status).
c) The sample excludes the persons in education.
d) Annual average.
e) Share of 1997 NEET persons who were employed in 1998.
f) Share of 1997 NEET persons who were employed in 1998 but experienced a repeat spell of NEET during the next three years.
Source: OECD Secretariat estimates based on the European Community Household Panel, waves 4 to 8 (1997-2001), for the European countries and based on the Survey of Program Dynamics (SPD) 1997-2001, for the United States.

Figure 5. **Incidence of long-term unemployment among youth**

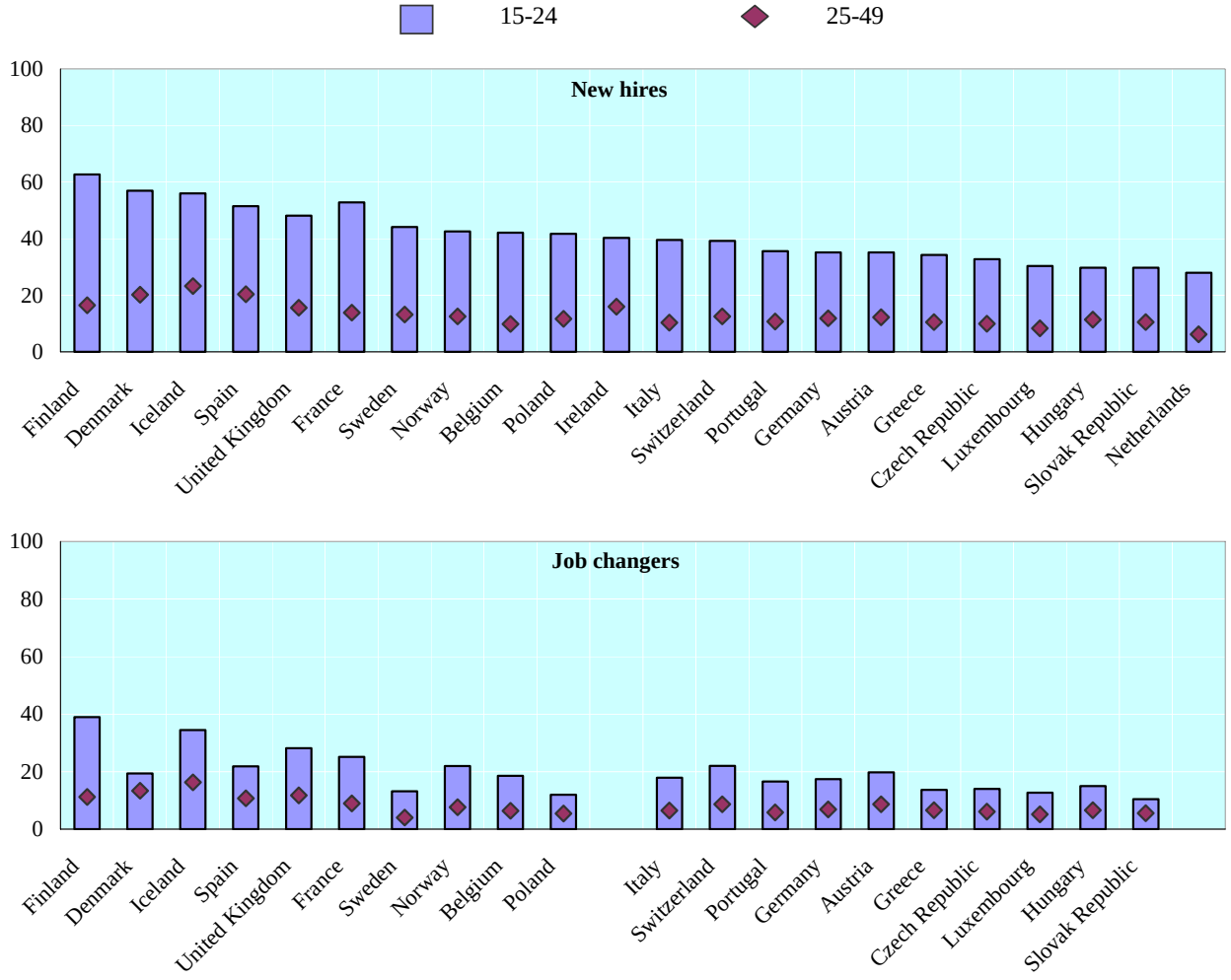
Long-term unemployment of youth (15-24) as a percentage of total unemployment of youth[a]



a) Values within parenthesis are the ratio of the incidence of long-term unemployment amo,g youth (15-24) to those of adults (25-54) in 2005.
b) 2004 for Iceland and Sweden.
Source: OECD database on Unemployment Duration.

Figure 6. **Job hires of younger workers[a], 2004**

Percentage of all employed persons in the corresponding age group one year earlier

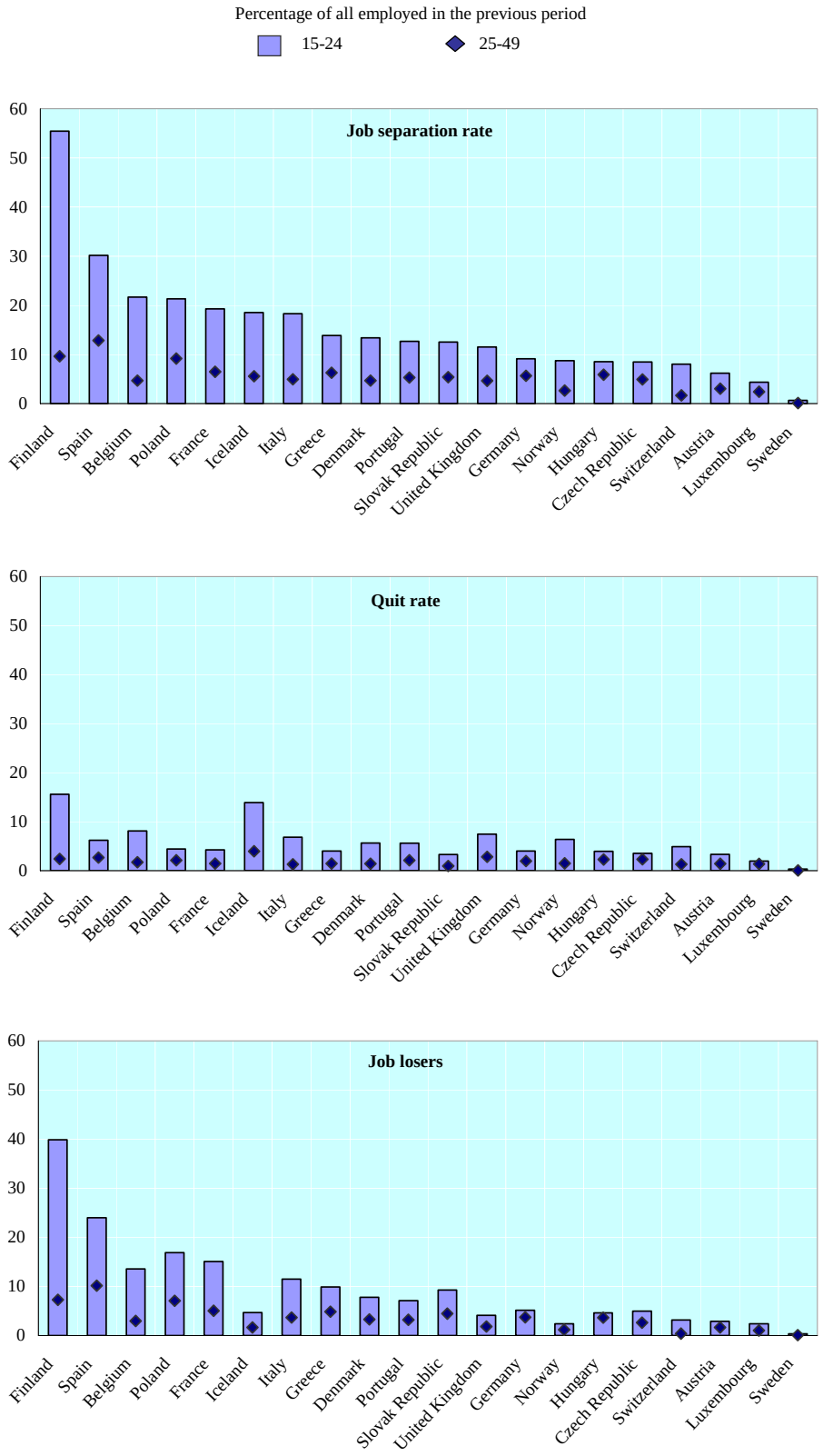


a) New hires refer to all workers at the time of the survey with job tenure of less than one year. Job changers refer to those newly hired workers who were also employed one year before.

Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

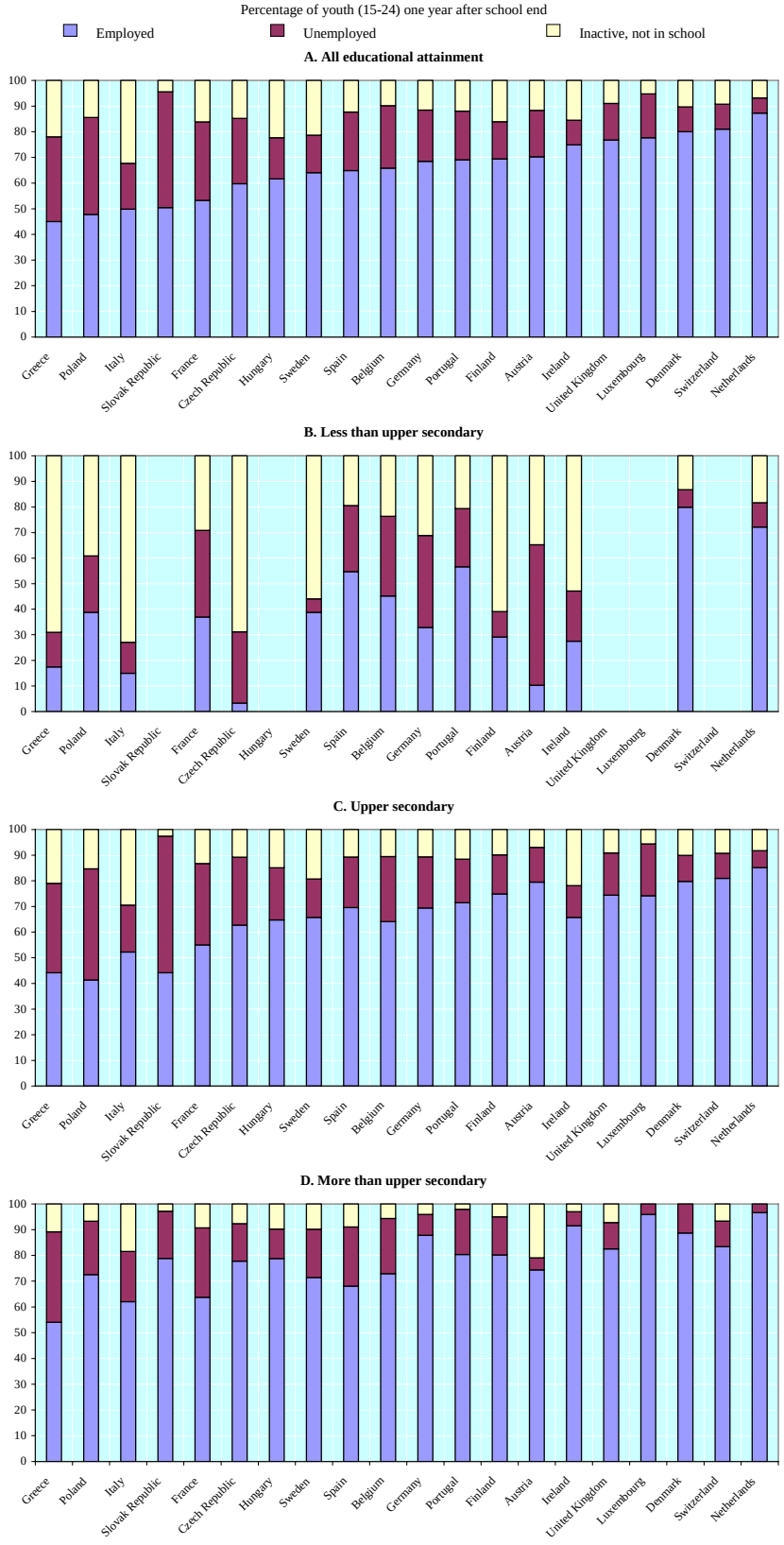
Figure 7. **Job quits and job loss among younger workers[a], 2004**

Percentage of all employed in the previous period



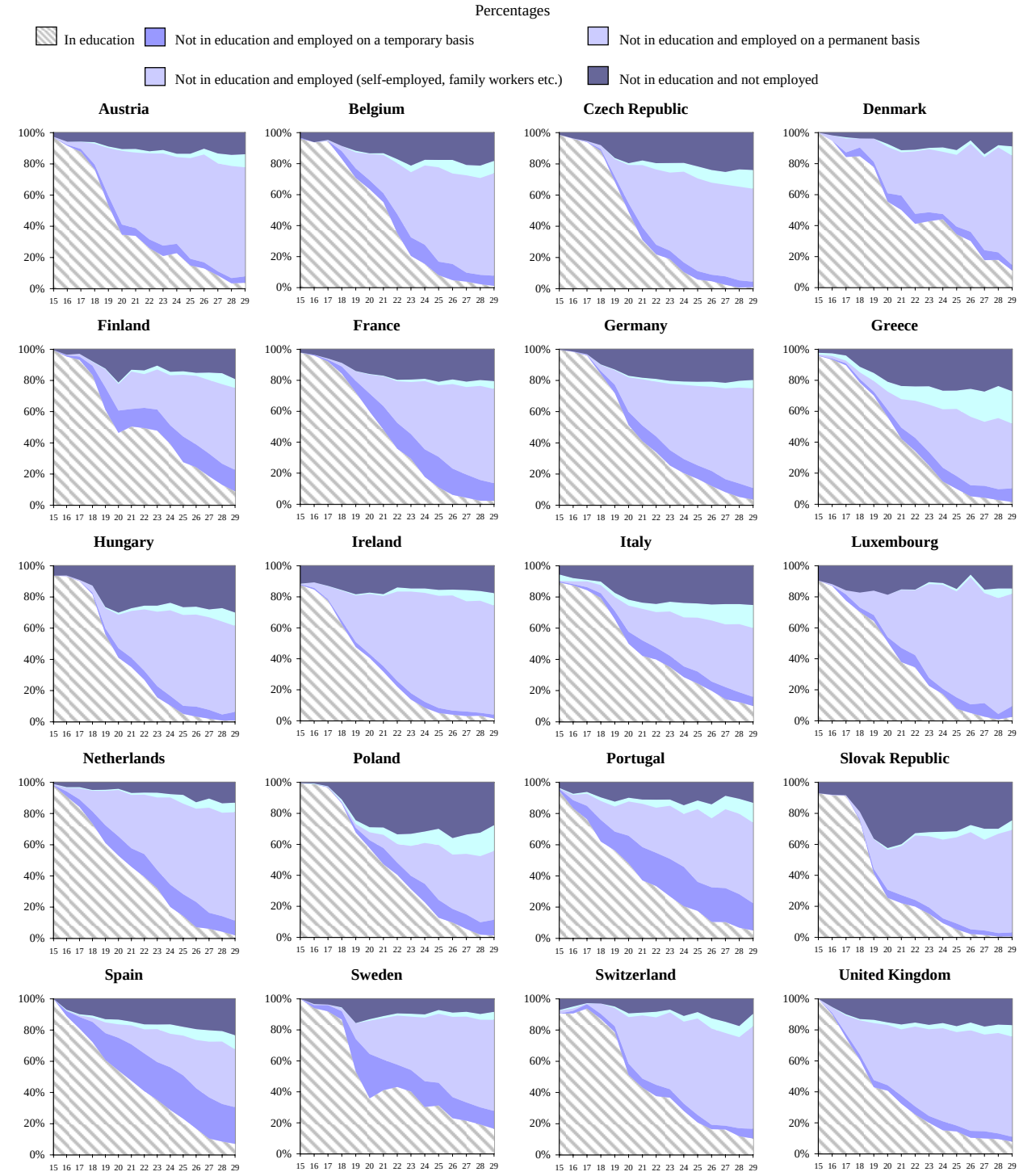
a) The data refer to all persons who are currently not employed but who had been working in a wage and salary job during the previous 12 months. Job losers refer to workers who lost their jobs involuntarily and job quitters to those who left their job voluntarily.
Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

Figure 8. **Labour market status one year after leaving school, 2004** [a,b]



a) 2003 for the Czech Republic, Switzerland and the United Kingdom.
b) Countries are ranked by ascending employment rates for all educational attainment.
Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

Figure 9. **Share of persons aged 15-29 by activity status in Europe, 2002**



Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

Table 1. **Average duration of the transition from school to work in Europe, 1994-2000** [a]

Duration in months

	Time spent to find any type of job		Time spent to find a permanent job	
Austria	19.9	*(23.2)*	33.0	*(25.1)*
Belgium	20.4	*(23.4)*	45.0	*(25.0)*
Denmark	14.6	*(22.7)*	21.3	*(28.7)*
Finland	27.6	*(24.5)*	44.3	*(24.9)*
France	24.3	*(21.6)*	40.7	*(25.9)*
Germany	18.0	*(18.0)*	33.8	*(22.3)*
Greece	21.3	*(19.2)*	51.5	*(25.6)*
Ireland	13.2	*(22.6)*	28.7	*(30.1)*
Italy	25.5	*(20.6)*	44.8	*(24.9)*
Portugal	22.6	*(21.8)*	51.5	*(24.2)*
Spain	34.6	*(22.4)*	56.6	*(17.4)*
United Kingdom	19.4	*(20.0)*	36.1	*(24.1)*

Values within parenthesis are the standard deviations of the estimates.

a) 1995-2000 for Finland.

Source: OECD estimates based on the European Community Household Panel (waves 2 to wave 8).

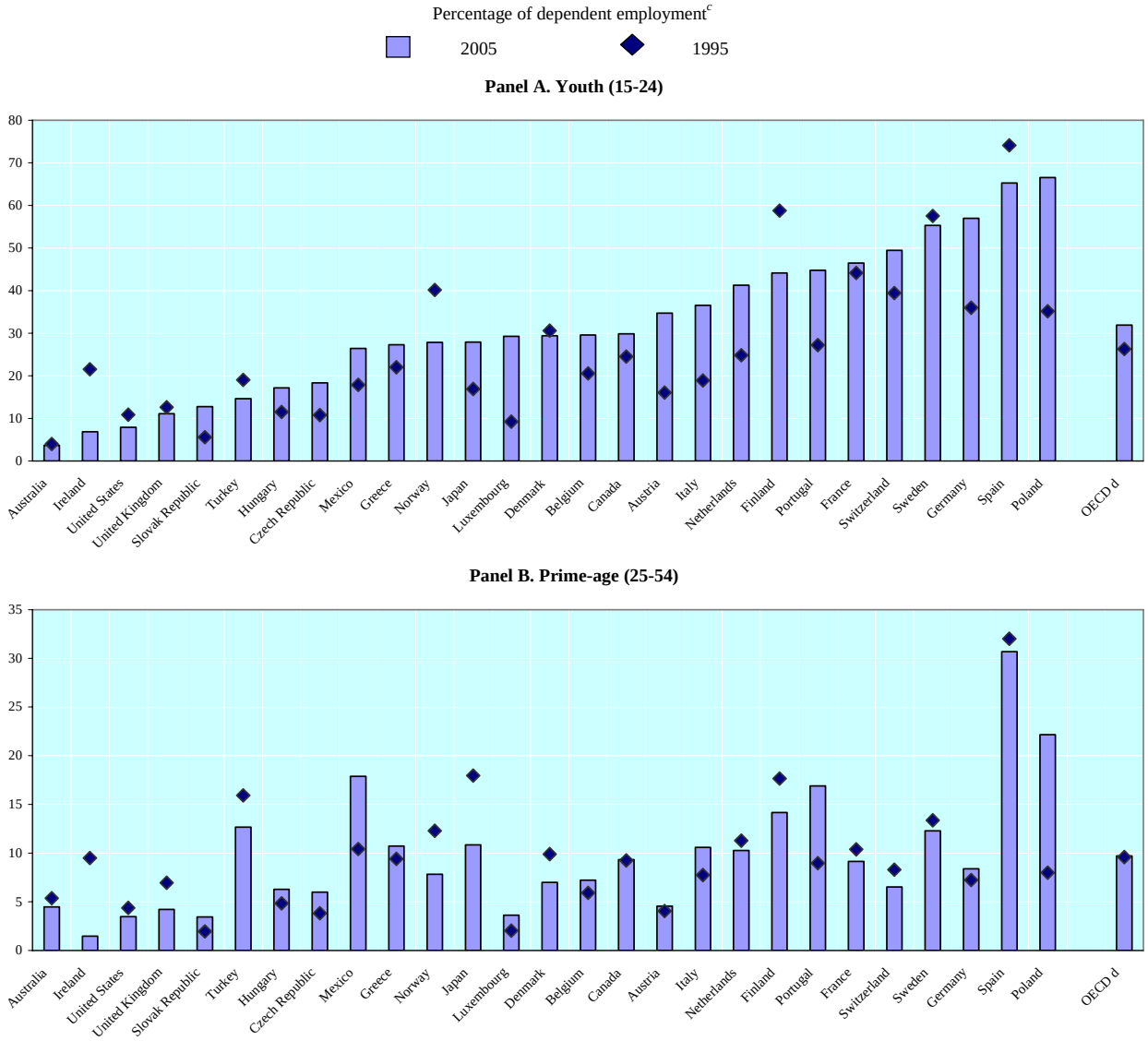
Table 2. **Unemployment experience of youth out-of-school in Europe, 1994-2000**[a]

	Average Number of spells	Average completed duration in unemployment (months)	Percentage		
			No spell	One spell	Two or more spells
Austria	0.8	4.9	58.5	16.8	24.7
Belgium	1.1	8.4	46.0	23.4	30.6
Denmark	1.1	5.0	37.9	48.8	13.2
Finland	1.4	9.3	33.6	28.4	38.0
France	1.5	13.3	37.1	27.9	35.0
Germany	1.0	7.1	54.5	20.6	24.8
Greece	1.2	18.7	30.2	38.0	31.9
Ireland	0.7	5.3	50.2	36.7	13.2
Italy	1.4	23.1	23.0	44.1	32.9
Portugal	1.1	9.1	40.6	28.5	30.9
Spain	2.0	22.6	17.2	25.9	56.9
United Kingdom	1.0	6.4	44.4	34.0	21.6

a) 1995-2000 for Finland.

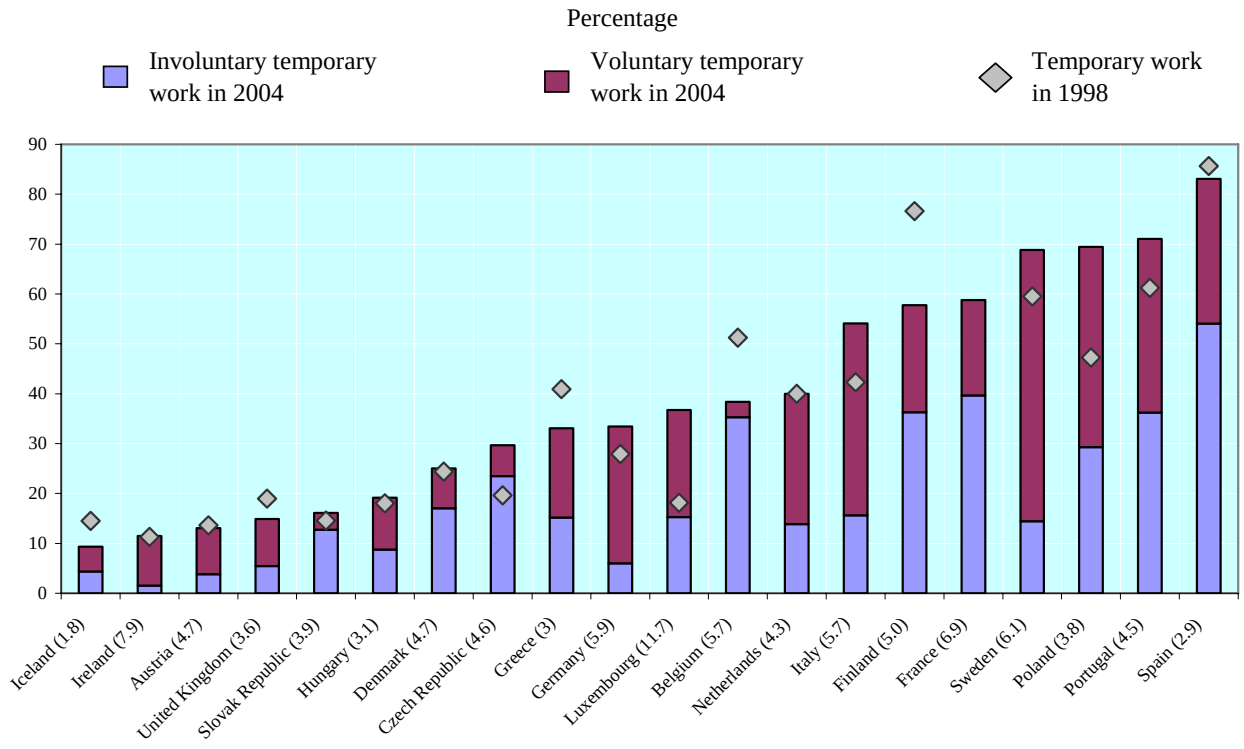
Source: OECD estimates based on the European Community Household Panel (waves 2 to wave 8).

Figure 10. **Incidence of temporary work for persons aged 15-24 and 25-54 in OECD countries, 1995**[a] **and 2005**[b]



a) 1996 for Luxembourg and Norway; 1997 for Canada, Finland and Hungary; 1998 for Australia; 2001 for Poland.
b) 2004 for Australia and Mexico.
c) Countries shown in ascending order of incidence of temporary employment of youth in 2005.
d) Unweighted average of countries shown.
Source: OECD database on temporary employment.

Figure 11. **Incidence of temporary work one year after leaving school, 1998**[a] **and 2004** [b,c]



a) 1999 for Belgium, Denmark, Germany, Greece, Luxembourg and Spain; 2000 for Iceland, the Netherlands and Sweden; and 2001 for Poland and the United Kingdom.

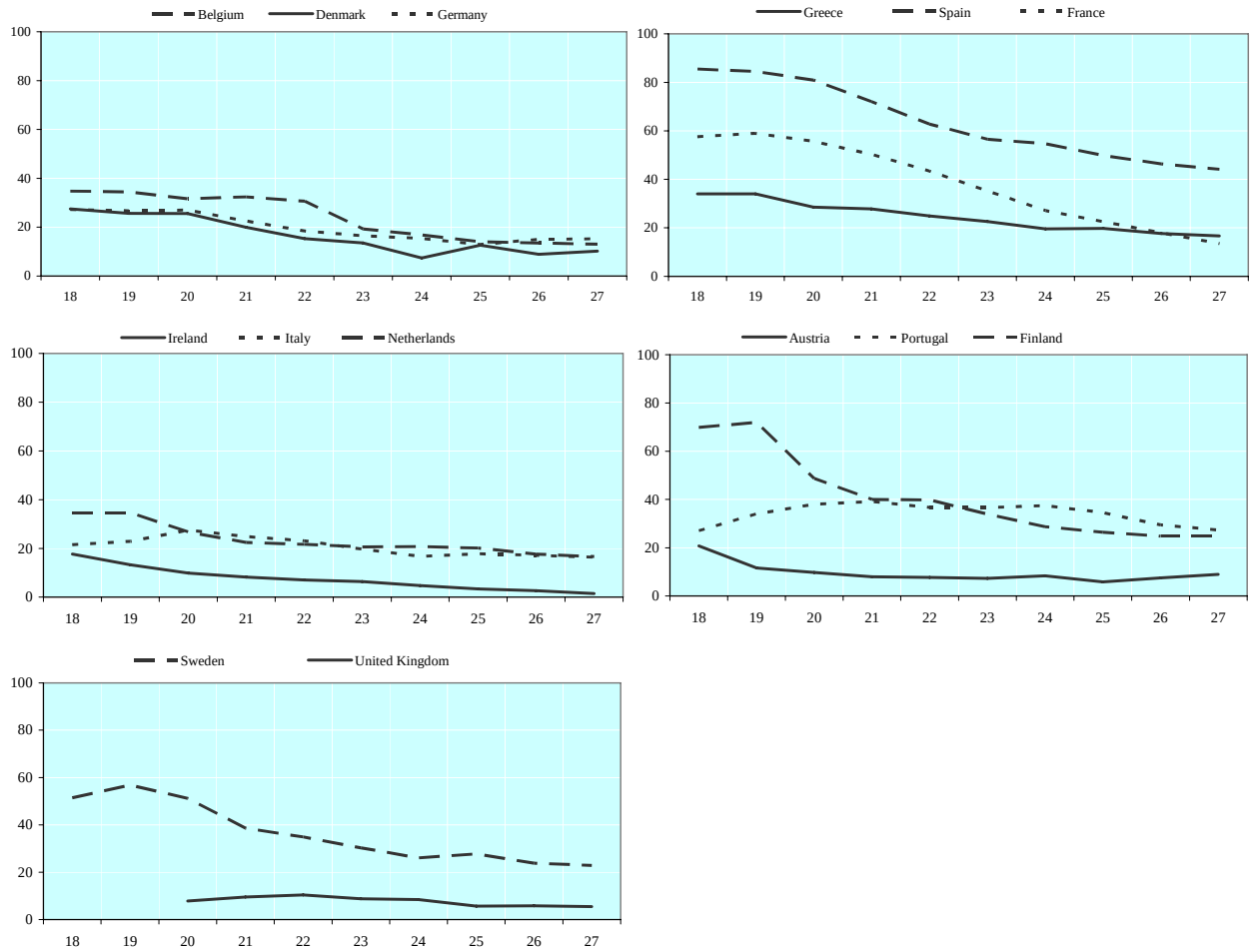
b) 2003 for Austria and the Czech Republic.

c) Values within parenthesis are the ratio of the incidence of temporary work of youth (15-24) to that of prime-age adults (25-54) in 2004.

Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

Figure 12. **Share of persons aged 18-27 out-of-school in temporary work by age, 1995-2005**

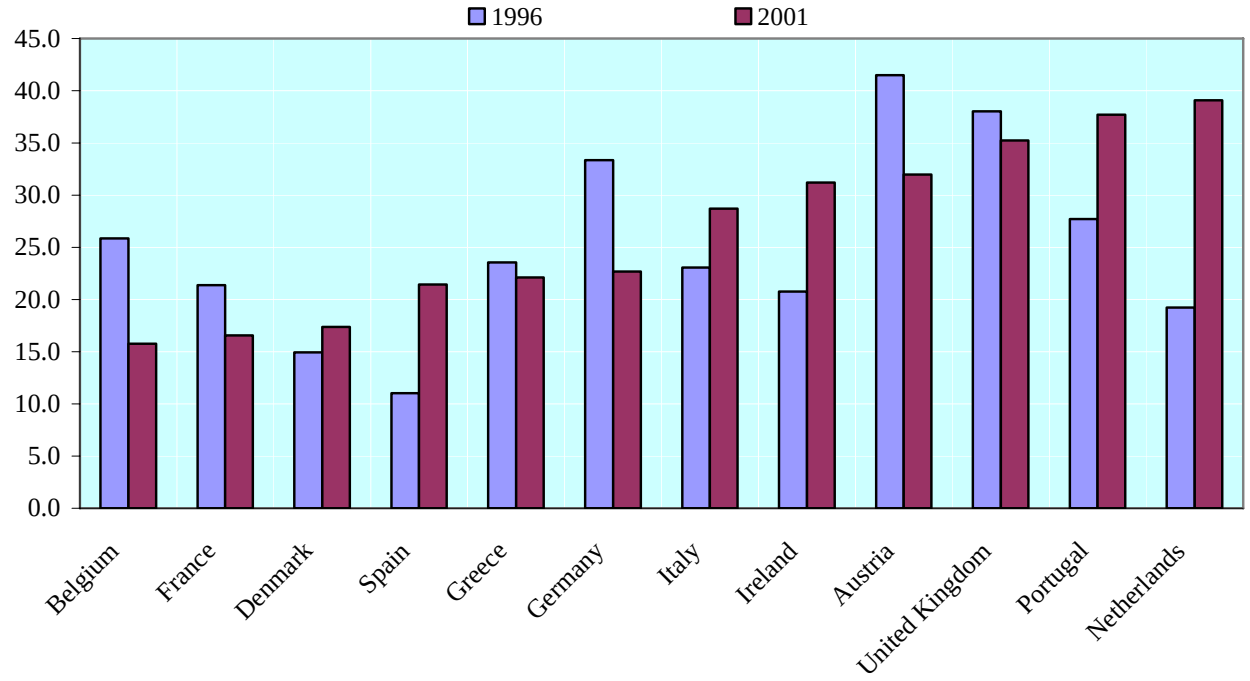
Average over the period in percentage



Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

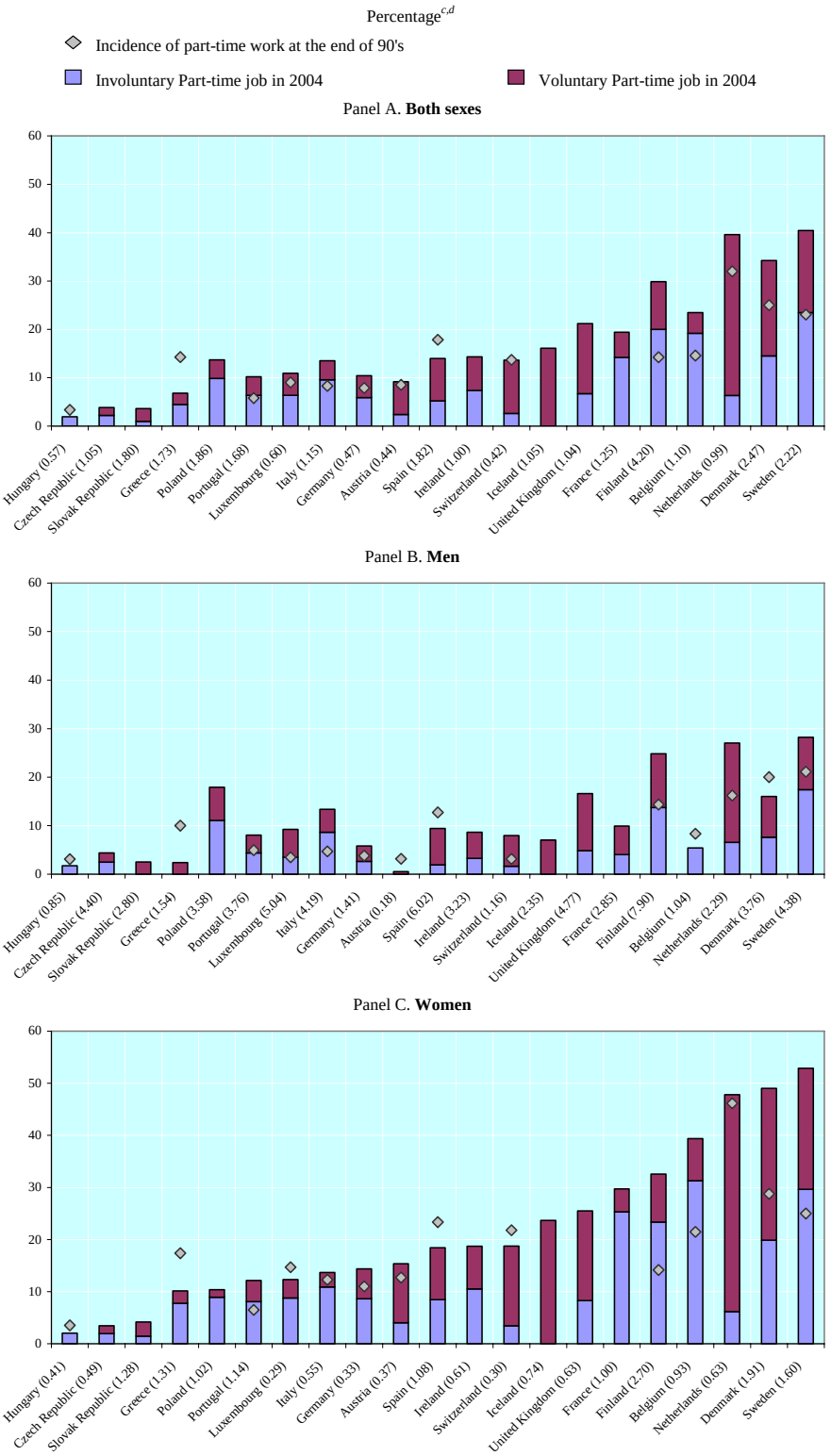
Figure 13. **Transition rates from temporary to permanent work in Europe, 1996 and 2001**

Percentage of persons aged 15-28 with a temporary contract in the previous year



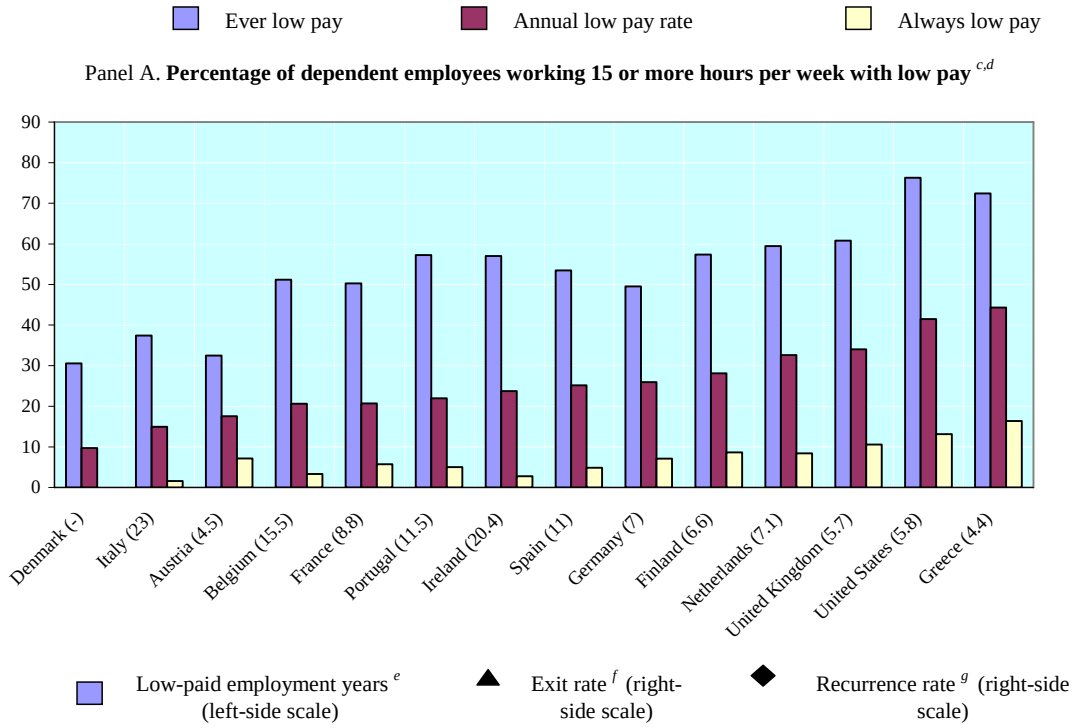
Source: OECD calculations based on the European Community Household Panel (ECHP), waves 2 to 8 (1995-2001).

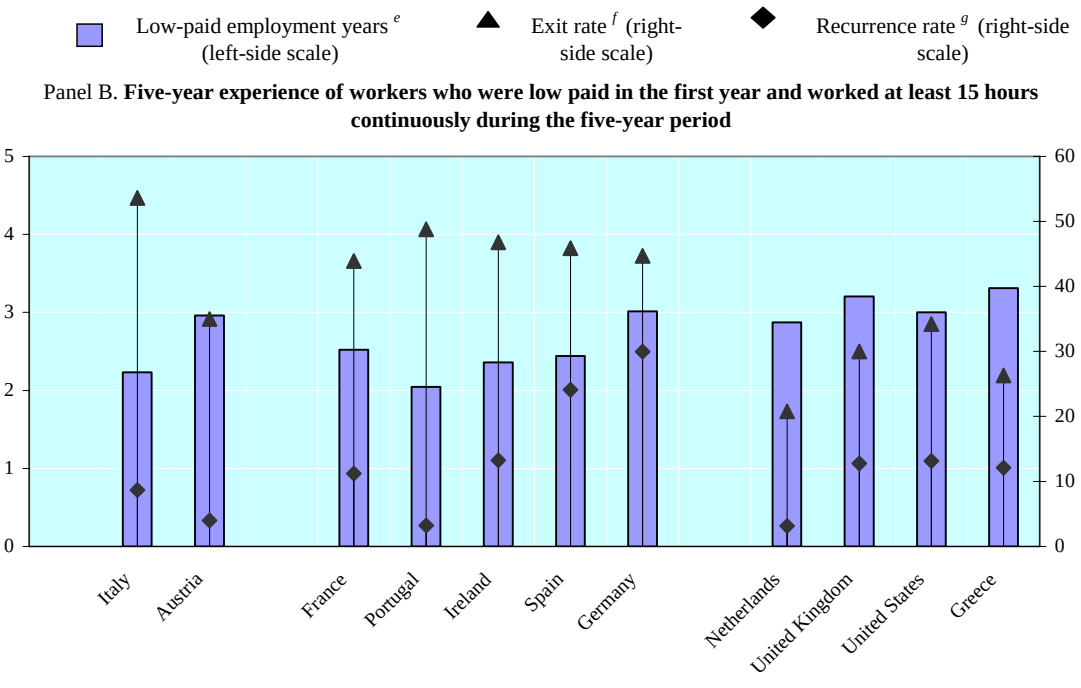
Figure 14. **Incidence of part-time work one year after leaving school, End of 90's[a] and 2004 [b]**



a) 1998 for Finland, Hungary, Italy, Portugal and Switzerland; 1999 for Austria, Belgium, Denmark, Germany, Greece, Luxembourg and Spain; and 2000 for the Netherlands and Sweden.
b) 2003 for the Czech Republic and the Slovak Republic.
c) Values within parenthesis are the ratio of the incidence of part-time work of youth to that of adults (25-54) in 2004.
d) Countries are ranked by ascending order of the incidence of part-time job for women in 2004.
Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

Figure 15. **Alternative measures of low-paid employment [a] of youth, 15-24, over five years, 1997-2001[b]**





a) Workers are considered to be in low-paid employment if they work at least 15 hours per week and receive an hourly wage of less than two-thirds the median value in that country and year.

b) Countries shown in ascending order of single-year rates of low-paid employment (Panel A).

c) Sample for calculations restricted to persons not in education who were continuously employed as dependent employees working at least 15 hours per week during all five years analysed.

d) Values within parenthesis below the country labels in Panel A are the ratio of the ever to the always low paid (an index of turnover).

e) Average years.

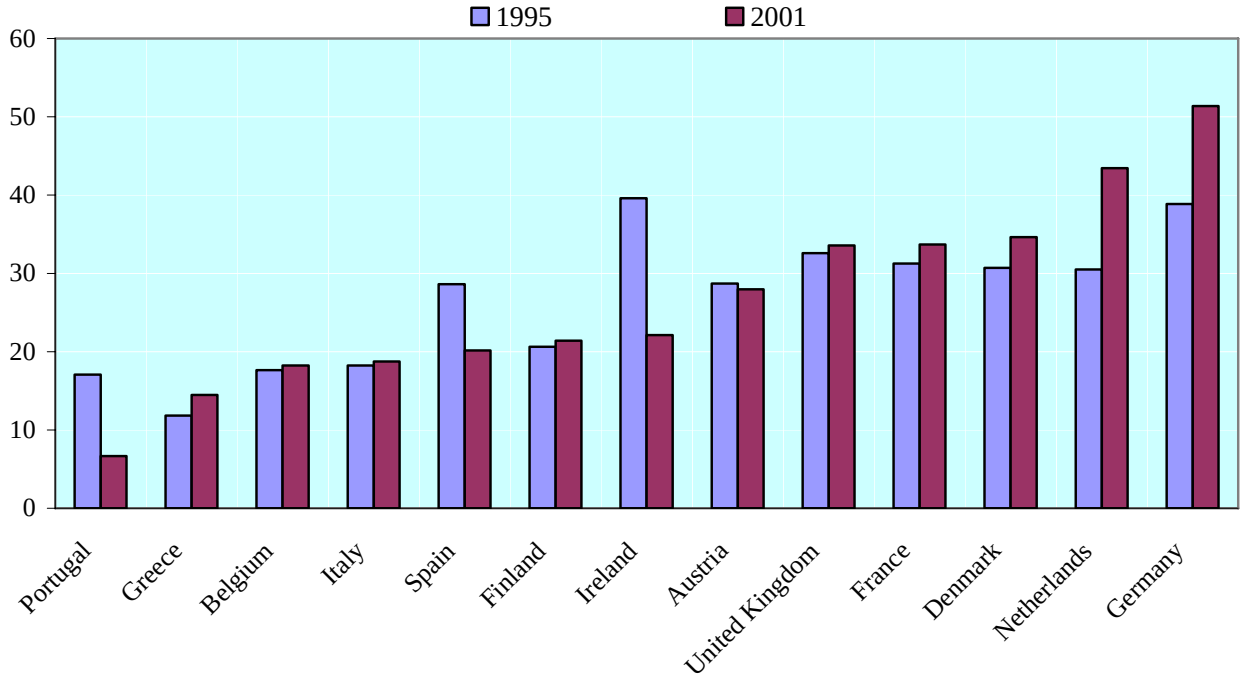
f) Share of 1997 low-paid persons who were high-paid in 1998.

g) Share of 1997 low-paid persons exiting low pay in 1998 but experiencing a repeat spell of low pay during 1999-2001.

Source: OECD Secretariat estimates based on the European Community Household Panel, waves 4 to 8 (1997-2001), for the European countries and based on the Survey of Program Dynamics (SPD) 1997-2001, for the United States.

Figure 16. **Low-pay[a] incidence in Europe, 1995[b] and 2001**

Percentage of persons aged 15-28 working at least 15 hours per week



a) Low-paid work corresponds to two third of the gross hourly earnings median of persons aged 25-54.
b) 1996 for Finland.
Source: OECD calculations based on the European Community Household Panel (ECHP), waves 2 to 8 (1995-2001).

Figure 17. **Over-education rate**[a] **, 1995-2005** [b]

Percentage of youth aged 15-28 not in education who are estimated to be "over-educated"

a) Young people are classified as over-educated if they hold a qualification that is higher than the qualification required by the occupation they carry out. The qualification required by each occupation is the same as that used in Dumont, 2005 and the correspondence between ISCO code (for occupations) and ISCED codes (for qualifications) can be found in annex Table A1.1. Following this methodology the following individuals will be classified as over-educated: those who have completed tertiary education but are working in an occupation that requries a medium or low qualification; those who have completed upper secondary education only but are working in an occupation that requires a low qualification.

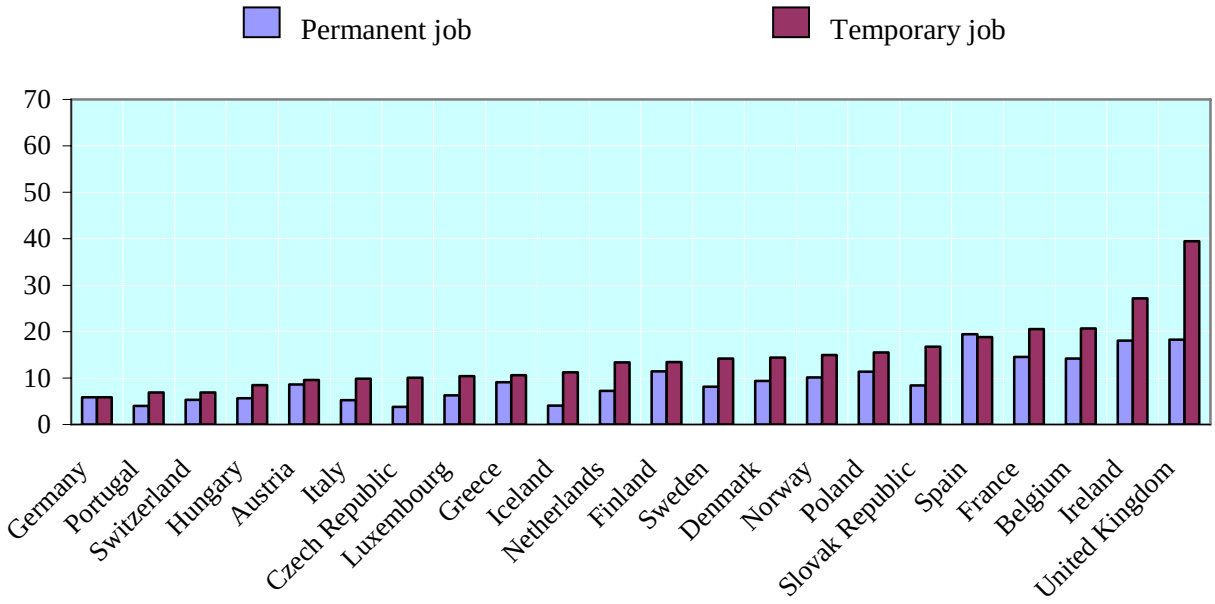
b) 1995-2004 for Luxembourg; 1996-2005 for Germany, the Netherlands, Norway and Switzerland; 1997-2005 for Finland, Hungary and Sweden; 1999-2005 for Iceland and the United Kingdom; 2001-2005 for Poland; and 2002-2005 for the Czech Republic and the Slovak Republic.

Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

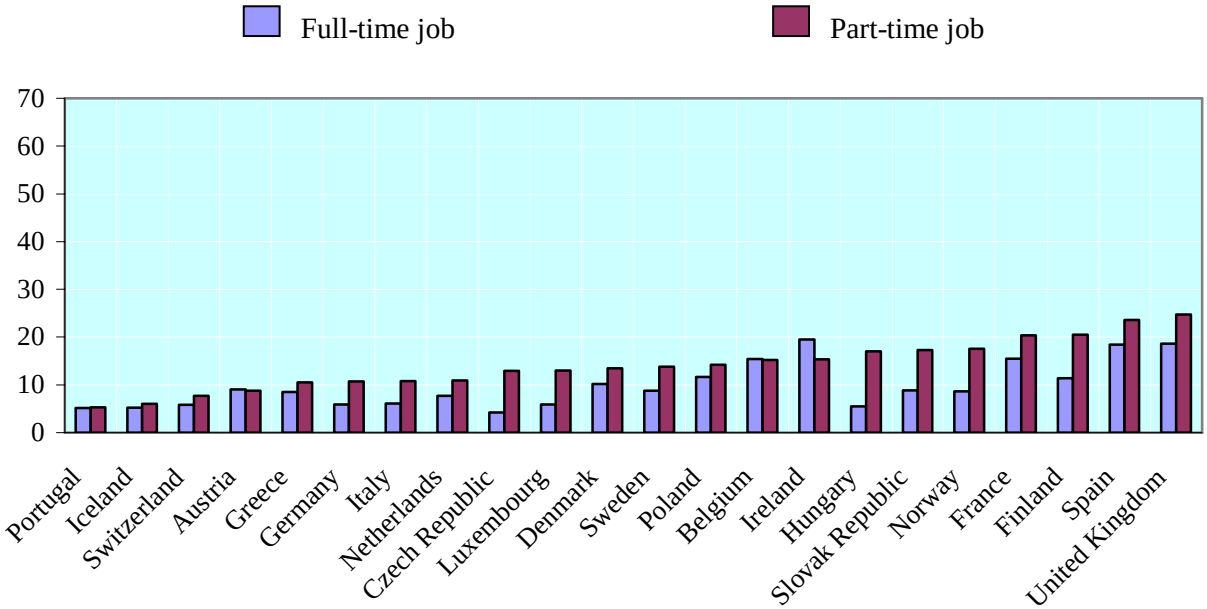
Figure 18. **Over-education rate**[a] **by job type, 2005**[b]

Percentage of youth aged 15-28 not in education who are estimated to be "over-educated"

Panel A. **Permanent/temporary jobs**



Panel B. **Full-time and Part-time jobs**



a) Young people are classified as over-educated if they hold a qualification that is higher than the qualification required by the occupation they carry out. The qualification required by each occupation is the same as that used in Dumont, 2005 and the correspondence between ISCO code (for occupations) and ISCED codes (for qualifications) can be found in annex Table A1.1. Following this methodology the following individuals will be classified as over-educated: those who have completed tertiary education but are working in an occupation that requries a medium or low qualification; those who have completed upper secondary education only but are working in an occupation that requires a low qualification.

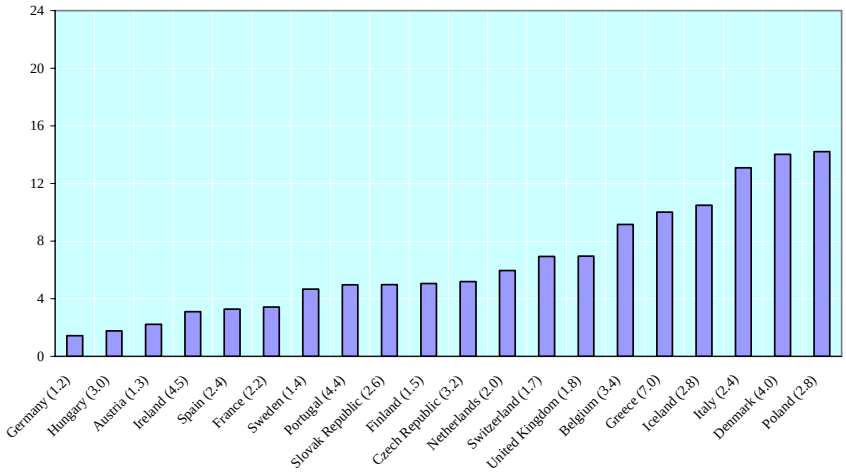
b) 2004 for Luxembourg.

Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

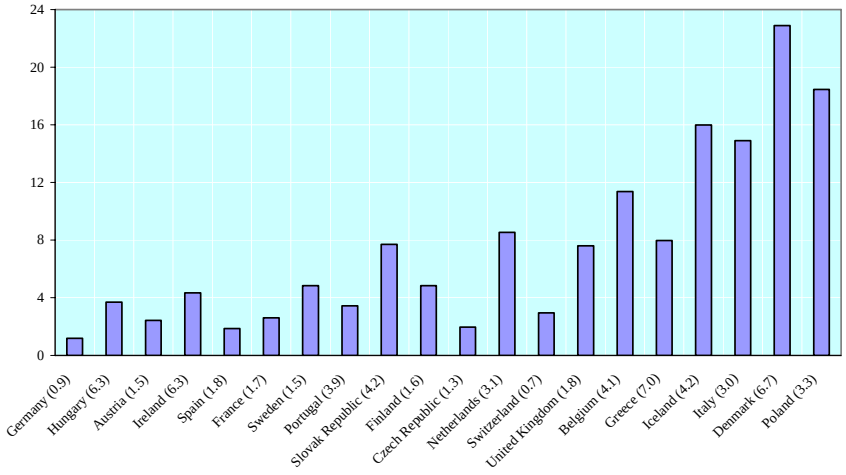
Figure 19. **Proportion of young workers looking for another job, 2004** [a]

Percentage [b,c]

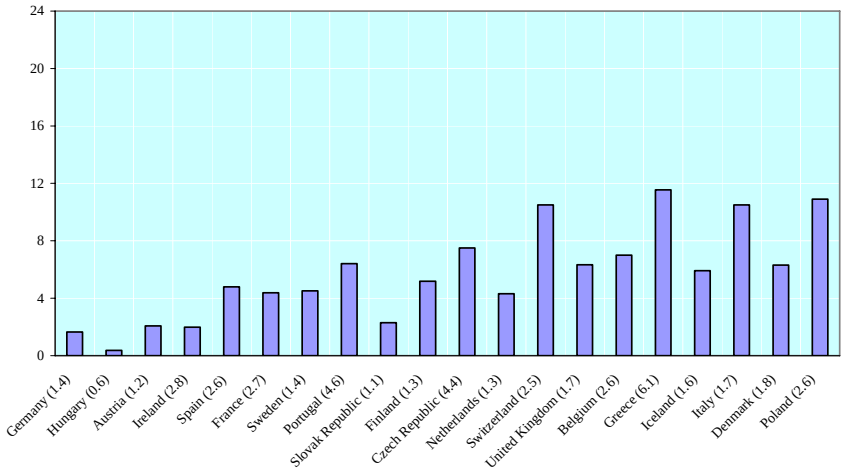
Panel A. **Both sexes**



Panel B. **Men**



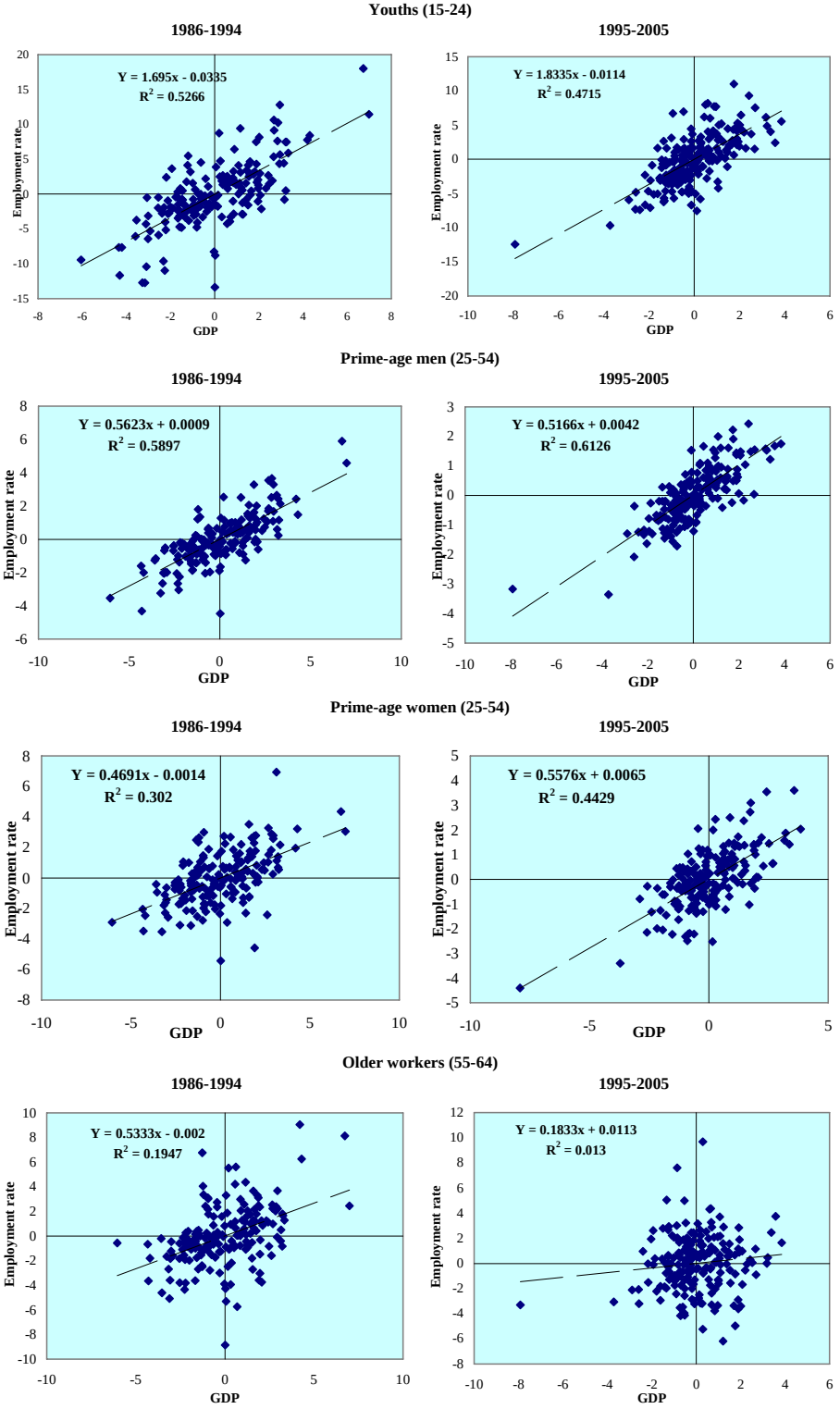
Panel C. **Women**



a) 2003 for the Czech Republic, Hungary and Ireland.
b) Values within parenthesis are the ratio of the incidence of temporary work of youth to those of the adults (25-54) in 2004.
c) Countries are ranked by ascending order of the proportion of persons (both sexes) looking for another job.
Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

Figure 20. **Youth employment rates tend to be more sensitive to the cycle**

Percentage deviation of employment rate and GDP from their respective trends, 1986-1994 and 1995-2005 [a, b, c]



a) Each point in the chart represents a country-year observation of the percentage deviation of employment and GDP from their respective trends.

b) The trends have been established by the Hodrick-Prescott filter imposing identical smoothing factors for total employment and GDP in all countries.

c) The sample includes the following countries: Australia, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, the United Kingdom and the United States.

Source: OECD Analytical Database and OECD database on Labour Force Statistics.

Table 3. **Youth employment intensity by industrial sector,[a] 2004**

Percentage of all employed aged 15-64

	Agriculture, hunting and forestry (A+B)	Mining and utilities (C+E)	Manufacturing (D)	Construction (F)	Wholesale and retail trade (G)	Hotels and restaurants (H)	Transport and communication (I)	Financial intermediation (J)	Real estate and business activities (K)	Public administration (L)	Education (M)	Health and social work (N)	Community , social and personal services (O+P+Q) [b]
Austria	4.9	9.8	14.9	21.6	17.9	19.1	11.3	9.5	10.4	5.8	6.0	8.1	14.7
Belgium	4.9	7.0	9.8	11.9	13.0	15.7	6.2	5.3	7.3	4.0	7.0	7.4	8.6
Czech Republic	11.3	9.2	14.1	19.6	20.3	22.2	8.9	11.7	11.7	7.9	10.3	10.3	16.5
Denmark	3.6	3.7	9.2	7.2	10.8	19.7	6.4	6.3	7.5	7.4	2.9	6.7	9.9
Finland	9.1	9.5	10.7	13.1	13.4	19.8	7.6	9.2	9.1	9.5	6.1	12.1	10.3
France	15.9	2.7	9.6	13.0	29.8	43.1	9.6	8.0	12.0	3.2	7.3	7.5	12.8
Germany	9.0	10.2	11.4	13.8	14.4	14.6	6.9	4.8	7.8	4.7	4.1	6.6	11.9
Greece	9.9	8.4	10.0	10.9	18.7	29.4	10.9	5.3	13.2	4.3	5.4	7.5	17.2
Hungary	7.2	4.2	9.6	12.5	13.6	18.4	7.1	5.8	8.6	5.3	4.4	5.8	12.2
Iceland	6.1	2.4	7.6	11.5	11.0	17.5	7.0	4.1	8.1	5.9	2.6	3.4	11.0
Ireland	5.9	4.1	9.2	8.6	11.0	15.0	5.2	5.9	8.0	6.4	3.3	4.8	7.8
Italy	6.8	9.1	13.2	23.6	26.1	28.9	10.2	19.1	13.4	7.0	7.3	8.4	16.9
Luxembourg	14.4	26.4	19.4	15.3	26.3	37.3	12.9	5.2	8.8	8.4	6.3	17.8	21.8
Netherlands	5.5	2.7	8.8	11.9	9.3	14.1	5.3	4.7	7.2	2.5	2.0	3.3	10.9
Norway	5.6	5.4	3.8	9.5	9.6	8.8	4.8	2.4	5.8	6.8	3.1	6.4	4.4
Poland	23.0	8.8	12.0	12.9	31.2	47.2	15.0	6.6	12.3	6.5	6.1	10.1	18.9
Portugal	16.7	5.3	10.0	14.5	24.8	38.5	7.8	2.1	9.6	4.4	4.2	9.9	20.4
Slovak Republic	10.0	1.5	11.6	8.8	15.5	26.1	4.6	8.4	7.7	5.3	3.0	3.9	13.3
Spain	4.5	8.0	13.4	13.2	14.7	14.2	6.4	4.1	11.0	6.5	3.5	7.0	6.9
Sweden	13.8	6.6	8.6	10.0	16.1	34.9	9.4	3.8	8.2	2.7	4.8	8.9	16.2
Switzerland	5.9	3.2	13.3	12.3	13.2	25.2	6.0	10.1	8.9	8.4	5.1	6.8	15.8
United Kingdom	11.0	10.8	10.0	13.5	25.8	39.5	9.8	14.3	11.1	8.3	5.5	9.2	19.9
United States	14.6	5.3	8.3	12.8	23.5	43.6	7.3	11.0	11.7	5.3	11.1	11.7	19.0

.. Data not available.

a) First digit of the ISIC rev.3.

b) Excluding Domestic services for France, Hungary, Poland, Portugal, the Slovak Republic, Spain and the United Kingdom.

Source: OECD Secretariat calculations based on the European Union Labour Force Survey, for the European countries and based on the Current Population Survey (CPS), for the United States.

Table 4. **Proportion of workers who received training on the job, 2005**

	Percentage	
	Young workers aged 15-29	Adults (30-54)
Austria	25.8	15.5
Belgium	14.1	11.6
Denmark	54.5	28.7
Finland	35.5	25.4
France	17.9	8.3
Germany	30.9	8.3
Greece	4.3	1.2
Hungary	10.6	3.7
Iceland	42.8	28.9
Ireland	23.5	10.0
Italy	6.8	6.1
Netherlands	45.5	17.0
Poland	18.7	5.1
Portugal	8.9	3.4
Slovak Republic	8.7	5.2
Spain	22.6	12.0
Sweden	30.3	17.8
Switzerland	50.8	30.0
United Kingdom	44.2	33.6

Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

Table 5. **Minimum wages for adults and youth in OECD countries, 2005**

Ratio of minimum wages to median wages for adults and youth

Country	Ratio of minimum to median wage	Ratio of sub-min for youth to median wage	Ratio of youth to adult rate
Australia[a]	0.56	-	-
Belgium[b]	0.46	0.38	0.82
Canada	0.41	-	-
Czech Republic[c]	0.38	0.34	0.90
France[d]	0.66	0.56	0.85
Greece	0.49	-	-
Hungary	0.45	-	-
Ireland[e]	0.38	0.22	0.57
Japan (2003)	0.32	-	-
Korea[f]	0.27	0.24	0.90
Luxembourg[g]	0.56	0.43	0.78
Mexico	0.19	-	-
Netherlands[h]	0.50	0.26	0.53
New Zealand[i]	0.48	0.32	0.66
Poland[j]	0.40	0.34	0.85
Portugal[k]	0.42	0.29	0.70
Slovak Republic[l]	0.42	0.26	0.63
Spain	0.30	-	-
Turkey (2004)	0.50	-	-
United Kingdom[m]	0.47	0.34	0.72
United States	0.30	-	-

- Not Applicable.

a) In Australia, youth are entitled to a reduced MW to be set in collective agreements.

b) youth get an amount ranging from 75% of the adult MW at 16 to 94% at 20 and 21 (85% is used in the calculations).

c) youth aged 18 to 21 receive 90% of the adult MW for the first 6 months of employment.

d) youth aged 17 and 18 with less than 6 months experience receive 90% of the adult MW and youth 16 or younger receive 80% of the adult MW (85% used in the calculations).

e) sub-MW applies to youth younger than 18.

f) Up to 2006, workers under 18 were entitled to 90% of the adult MW for the first 6 months of employment. Since 2007, the age criteria will be abolished on discrimination grounds, and all workers with less than 3 months of tenure (probabion period) will be entitled to 90% of the MW.

g) 75% of adult MW for youth aged 15 and 16 and 80% for youth aged 17 (average used in the calculations).

h) youth are entitled to a reduced MW, varying from 30% for 15 year-olds and 85% for 22 year-olds (average used in the calculations).

i) sub-MW applies to youth between 16 and 18 years of age.

j) youth are entitled to 80% of the adult MW for the first year of the first job held and 90% over the second year (85% used in the calculations).

k) sub-MW applies to youth up to 17.

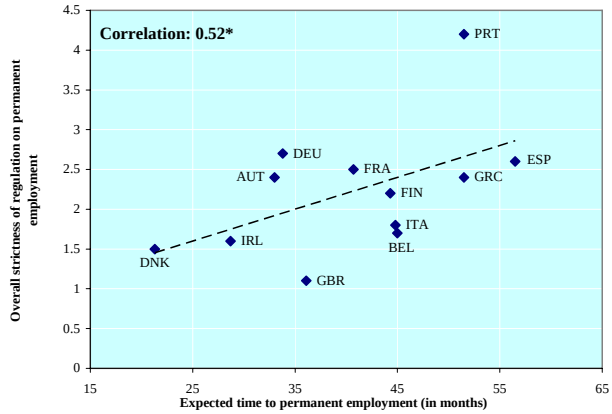
l) youth between 16 and 18 are entitled to 75% of the adult MW and youth under 16 to 50% (the latter has is not used in practice as the age of compulsory schooling has been raised to 16, as a result 75% is used in the calculations).

m) sub-MW applies to youth under 18.

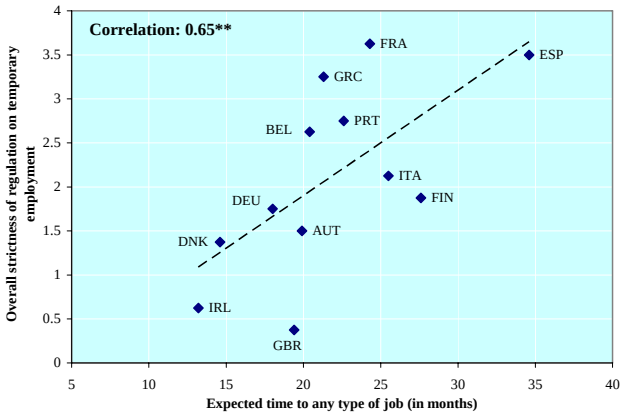
Source: OECD database on minimum wages and Eyraud and Saget (2005).

Figure 21. **Length of transition from school to work and strictness of Employment Protection Legislation**

Panel A. Expected time to permanent employment[a,b] (1994-2000) and overall strictness of regulation on permanent employment (2003)



Panel B. Expected time to any type of job[a] (1994-2000) and overall strictness of regulation on temporary employment (2003)



**, *, statistically significant at 5% and 10% levels, respectively.

a) 2003 for Denmark and the United Kingdom; and 2004 for Germany, Luxembourg and Portugal.

b) For Greece, Italy, Poland and Spain, the value reported for the excepted time to being employed on a permanent basis is estimated as the difference between 29 (maximum age used for the calculation) and the age when 50% of the youth are not in education.

c) 1993-2003 for Denmark and the United Kingdom; 1994-2004 for Luxembourg and Portugal; 1996-2004 for Germany; 1996-2005 for Finland and Norway; 1997-2005 for Hungary; 2001-2005 for Poland; 2002-2005 for the Czech Republic and the Slovak Republic.

Source: OECD Secretariat calculations based on the European Union Labour Force Survey and *OECD Employment Outlook,* 2004.

Table 6. **Public spending on youth labour market programmes, 1995-2002**[a]

	As a percentage of GDP		As a percentage of total expenditure in active labour market programmes	
	1995	2002	1995	2002
Australia	0.06	0.08	7.5	16.9
Austria	0.01	0.02	2.3	4.7
Belgium	0.07	0.01	5.2	0.6
Canada	0.02	0.02	3.3	4.4
Czech Republic	0.01	0.02	6.1	8.9
Denmark	0.14	0.10	7.7	6.2
Finland	0.15	0.17	9.9	17.2
France	0.27	0.40	20.8	32.2
Germany	0.06	0.10	4.2	8.6
Ireland	0.24	0.18	15.0	15.8
Italy	0.16	0.20	45.3	35.4
Japan	..	0.01	..	1.8
Korea	0.02	0.02	45.9	6.3
Netherlands	0.10	0.04	7.0	2.4
New Zealand	0.09	0.15	12.6	28.2
Norway	0.08	0.01	6.2	1.3
Poland	0.07	0.07	18.4	..
Portugal	0.33	0.22	42.3	35.6
Slovak Republic	..	0.01	..	2.4
Spain	0.08	0.06	15.7	6.5
Sweden	0.02	0.02	0.7	1.8
Switzerland	..	0.01	..	1.7
United Kingdom	0.12	0.13	25.9	35.8
United States	0.03	0.02	14.8	17.2
Unweighted average[b]	**0.10**	**0.10**	**15.1**	**14.3**

a) For Denmark and Portugal, data refer to 2000 instead of 2002; for Ireland data refer to 2001 instead of 2002; for Italy, data refer to 1996 instead of 1995.

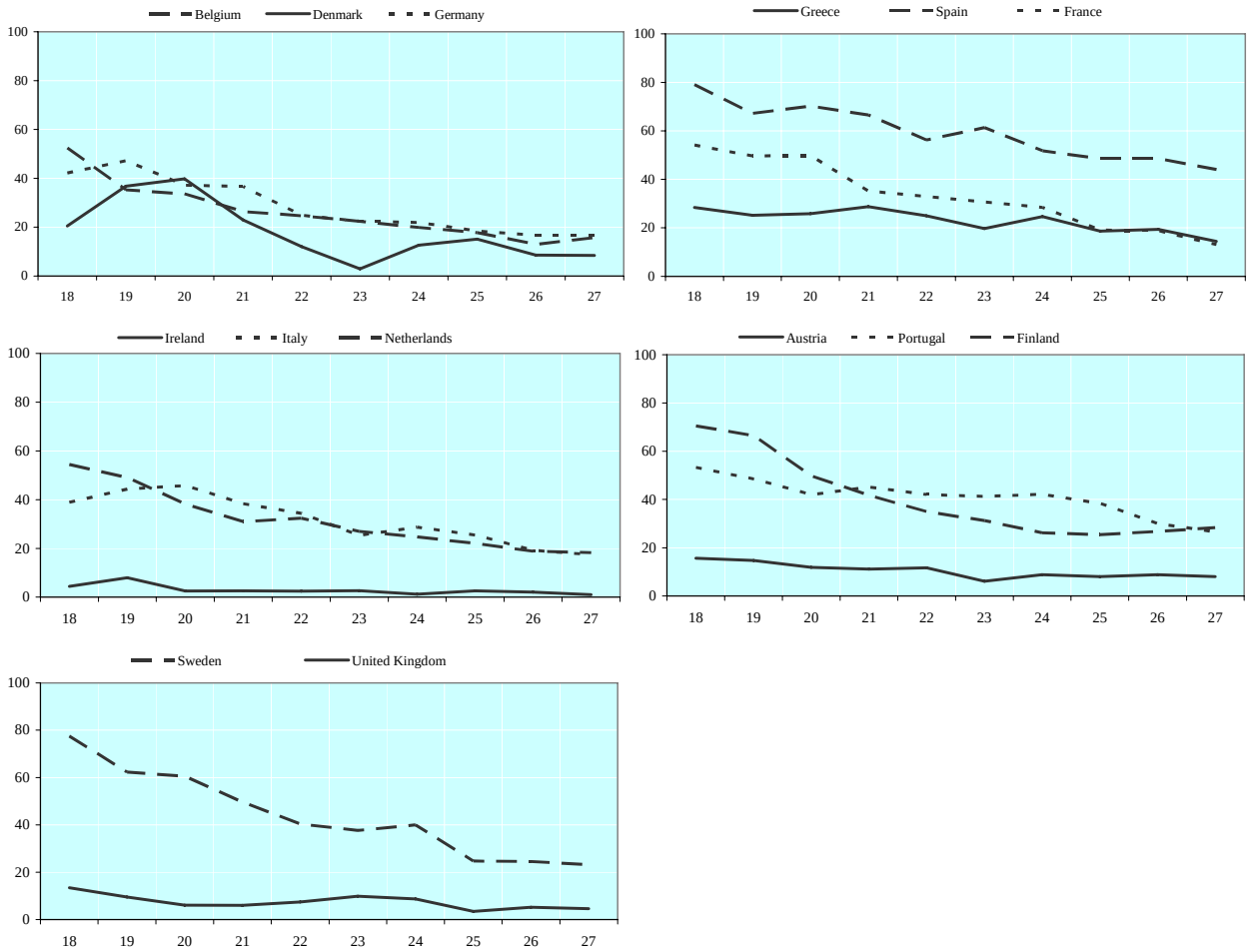
b) Average excluding Japan, the Slovak Republic and Switzerland.

Source: OECD database on Labour Market Programmes.

ANNEX

Figure A1.1. **Share of persons aged 18 to 28 in temporary work in Europe, 2005**

Percentages of employed persons aged 18-28 not in education



Source: OECD Secretariat calculations based on the European Union Labour Force Survey.

Table A1.1. **Correspondance between Occupations and Qualifiactions**

ISCO to ISCED qualification level

Occupation	ISCO code	Qualification required	ISCED qualification level
Legislators senior officials and managers	11	High qualification	Tertiary education ISCED 5/6
Corporate managers	12	High qualification	Tertiary education ISCED 5/6
Professionals	2	High qualification	Tertiary education ISCED 5/6
Technicians and associate professionals	3	High qualification	Tertiary education ISCED 5/6
Managers of small enterprises	13	Medium qualificaiton	Upper secondary qualification
Clerks	4	Medium qualification	Upper secondary qualification ISCED 3/4
Service workers and shop and market sales workers	5	Medium qualification	Upper secondary qualification ISCED 3/4
Skilled agricultural and fishery workers	6	Medium qualification	Upper secondary qualification ISCED 3/4
Craft and related trades workers	7	Medium qualification	Upper secondary qualification ISCED 3/4
Plant and machine operators and assemblers	8	Medium qualification	Upper secondary qualification ISCED 3/4
Elementary occupations	9	Low qualification	Lower than upper secondary qualification ISCED 0/1/2

Table A1.2. **Average earnings [a] by industry in Europe and the United States, 2003 [b]**

Percentage of average earnings for all industries

	Agriculture, hunting and forestry (A+B)	Mining and utilities (C+E)	Manufacturing (D)	Construction (F)	Wholesale and retail trade (G)	Hotels and restaurants (H)	Transport and communication (I)	Financial intermediation (J)	Real estate and business activities (K)	Public administration (L)	Education (M)	Health and social work (N)	Community , social and personal services (O+P+Q) [c]
Austria	48.1	178.9	106.7	94.9	81.0	78.3	110.2	152.4	86.7	119.8	136.3	80.5	106.0
Belgium	40.5	203.7	116.5	90.7	91.2	53.9	107.7	157.7	105.6	98.6	105.7	83.0	91.2
Czech Republic	73.9	126.3	92.2	96.0	94.4	59.3	107.9	199.9	110.7	119.3	106.0	104.1	107.4
Denmark	59.8	134.0	107.1	111.7	88.2	52.2	108.8	150.8	109.5	118.1	102.1	88.3	97.4
Finland	69.6	121.5	115.4	107.7	87.6	68.8	101.7	135.3	113.0	94.1	104.2	88.9	92.3
France	49.3	166.2	115.6	92.3	85.4	87.9	103.5	142.9	115.1	110.4	101.1	90.3	91.3
Germany	62.6	162.1	127.1	87.9	82.8	48.1	99.5	151.4	93.5	115.1	117.8	81.5	95.0
Greece	55.1	143.3	84.3	75.0	79.5	80.5	106.8	137.4	70.8	161.1	124.3	102.8	123.2
Hungary	67.1	107.9	84.5	72.1	89.1	55.8	100.0	196.6	204.0	142.7	86.9	101.7	109.8
Ireland	57.2	133.6	96.5	125.8	72.5	50.9	117.7	133.4	110.1	122.0	117.7	110.7	107.1
Italy	44.2	157.9	103.0	81.4	85.4	93.5	137.0	180.7	95.3	135.2	115.9	117.9	98.4
Luxembourg	68.2	133.6	104.7	72.1	70.8	56.8	108.3	162.5	81.2	148.3	145.6	91.8	110.6
Netherlands	69.5	161.3	115.0	116.0	80.2	47.3	112.8	157.7	100.1	137.1	111.5	75.0	97.9
Norway	85.9	194.1	109.5	114.6	90.0	78.5	108.5	143.9	115.6	109.7	100.7	73.0	87.2
Poland	65.2	139.9	83.4	81.9	77.7	75.5	106.0	140.5	137.0	193.7	98.0	70.7	113.8
Portugal	50.1	218.7	80.7	89.1	82.3	62.6	149.2	239.1	93.0	129.0	155.9	120.2	118.9
Slovak Republic	80.1	126.9	100.6	95.0	102.3	68.5	110.5	181.3	131.1	124.9	74.7	79.5	89.7
Spain	41.9	154.6	107.4	91.5	70.2	95.3	132.4	191.2	121.1	93.2	127.3	119.5	98.2
United Kingdom	60.5	188.6	136.9	105.7	71.1	53.2	143.1	120.7	105.8	108.7	103.0	79.4	95.4
United States	49.8	184.3	135.6	105.2	80.2	38.4	121.5	171.1	113.9	118.6	90.2	89.1	92.7

. . Data not available.

a) Average earnings calculated as total labour compensation of employees divided by total employees.

b) 2001 for the Slovak Republic and 2002 for France, Hungary, Norway, Poland and Spain.

c) Excluding Domestic services for France, Hungary, Poland, Portugal, the Slovak Republic, Spain and the United Kingdom.

Source: OECD Secretariat calculations based on the OECD STAN database for Industrial Analysis.

Table A1.3. **Employment share and percentage point change by industry in Europe and the United States, 1993-2003** [a]

Percentage in 2003 and percentage-point changes over the period

	Agriculture, hunting and forestry (A+B)		Mining and utilities (C+E)		Manufacturing (D)		Construction (F)		Wholesale and retail trade (G)		Hotels and restaurants (H)	
Austria	13.0	*-2.9*	1.0	*-0.2*	15.5	*-2.7*	6.3	*-0.6*	14.1	*0.0*	5.5	*0.4*
Belgium	2.4	*-0.5*	0.7	*-0.2*	14.7	*-2.8*	5.6	*-0.4*	14.6	*-0.9*	3.5	*-0.3*
Czech Republic	3.9	*-2.0*	2.5	*-1.0*	28.2	*1.8*	7.9	*-2.2*	14.9	*-0.2*	3.4	*0.4*
Denmark	3.7	*-1.5*	0.7	*-0.1*	15.4	*-2.9*	6.0	*0.5*	16.2	*1.2*	3.1	*0.4*
Finland	5.2	*-3.4*	0.9	*-0.4*	18.7	*-0.5*	6.5	*0.1*	12.8	*0.5*	3.2	*0.3*
France	4.1	*-1.3*	0.8	*-0.1*	15.2	*-3.1*	6.0	*-0.9*	13.9	*0.3*	3.5	*0.1*
Germany	2.4	*-0.9*	1.0	*-0.6*	20.2	*-4.2*	6.0	*-2.1*	15.3	*0.1*	4.7	*1.1*
Greece	15.5	*-4.1*	1.3	*-0.2*	14.3	*-2.1*	8.1	*1.5*	15.3	*0.8*	6.7	*0.8*
Hungary	6.2	*-3.0*	2.3	*-1.6*	24.8	*-0.1*	7.0	*1.5*	14.3	*1.8*	3.5	*0.6*
Ireland	6.6	*-5.4*	1.1	*-0.5*	15.6	*-3.3*	10.8	*3.5*	14.1	*0.3*	6.4	*0.8*
Italy	4.4	*-2.1*	0.7	*-0.3*	21.5	*-1.8*	6.9	*0.0*	15.4	*-0.3*	5.0	*1.1*
Luxembourg	1.3	*-1.2*	0.6	*-0.2*	11.1	*-5.3*	9.7	*-1.9*	14.0	*-1.9*	4.6	*-0.4*
Netherlands	3.3	*-1.0*	0.5	*-0.3*	12.4	*-3.5*	6.0	*-0.2*	16.6	*0.0*	3.6	*0.3*
Norway	3.6	*-1.7*	2.0	*-0.3*	11.9	*-2.0*	5.7	*0.5*	14.7	*0.3*	2.8	*0.0*
Poland	26.5	*0.7*	3.1	*-1.7*	17.3	*-3.7*	5.4	*-1.6*	14.6	*2.3*	1.5	*0.5*
Portugal	9.9	*-2.5*	0.6	*-0.1*	19.6	*-2.3*	9.5	*0.8*	15.7	*0.7*	5.1	*0.8*
Slovak Republic	4.4	*-4.5*	2.5	*-0.4*	25.0	*-2.3*	6.6	*-0.3*	17.7	*6.8*	2.7	*0.1*
Spain	5.9	*-2.9*	0.7	*-0.4*	17.9	*-1.0*	10.9	*1.3*	15.3	*-0.1*	6.1	*0.8*
United Kingdom	1.4	*-0.8*	0.6	*-0.3*	12.2	*-3.7*	6.8	*0.2*	16.8	*-0.3*	6.4	*0.6*
United States	1.7	*-0.1*	0.7	*-0.2*	10.8	*-3.3*	5.9	*0.7*	15.1	*-0.2*	7.3	*0.3*

	Transport and communication (I)		Financial intermediation (J)		Real estate and business activities (K)		Public administration (L)		Education (M)		Health and social work (N)		Community , social and personal services (O+P+Q) [b]	
Austria	6.3	*-0.1*	2.8	*-0.2*	10.8	*4.5*	6.1	*-0.4*	5.1	*0.1*	8.9	*1.6*	24.7	*1.8*
Belgium	6.5	*0.0*	3.4	*-0.2*	14.0	*2.9*	10.3	*0.1*	8.7	*0.1*	10.0	*1.8*	34.7	*2.3*
Czech Republic	7.2	*0.1*	1.6	*0.1*	9.8	*2.1*	6.4	*0.7*	5.3	*0.3*	5.5	*-0.1*	20.6	*1.0*
Denmark	6.5	*-0.4*	2.7	*-0.3*	10.1	*2.4*	7.2	*-0.8*	7.2	*0.3*	16.2	*0.9*	35.6	*0.6*
Finland	7.2	*-0.5*	1.7	*-0.9*	10.1	*3.4*	7.3	*-0.4*	6.8	*0.5*	14.3	*0.6*	33.7	*1.4*
France	6.2	*0.3*	3.3	*-0.2*	13.6	*3.1*	10.1	*-0.2*	7.2	*-0.1*	8.9	*0.3*	33.6	*1.9*
Germany	5.4	*-0.8*	3.3	*-0.1*	12.4	*5.0*	6.9	*-1.3*	5.4	*0.2*	10.6	*2.5*	29.3	*2.5*
Greece	6.8	*-0.1*	2.4	*0.3*	6.5	*1.7*	7.1	*0.0*	6.6	*0.8*	4.4	*0.1*	23.2	*1.5*
Hungary	8.0	*-0.9*	1.9	*0.0*	6.0	*2.4*	7.3	*0.7*	8.2	*-0.9*	6.2	*-0.2*	25.9	*-0.7*
Ireland	6.2	*1.5*	4.2	*0.6*	8.5	*2.8*	5.1	*-0.6*	6.4	*-0.5*	9.5	*1.0*	26.4	*-0.3*
Italy	4.5	*-0.4*	2.7	*-0.1*	11.0	*3.6*	5.6	*-1.0*	6.9	*-0.4*	5.7	*0.1*	27.8	*0.3*
Luxembourg	8.4	*1.2*	11.3	*1.6*	16.5	*7.6*	5.2	*-0.2*	4.4	*0.0*	6.4	*0.4*	22.3	*0.5*
Netherlands	5.6	*-0.2*	3.5	*0.1*	15.3	*3.8*	6.2	*-0.8*	5.6	*-0.2*	13.4	*1.9*	33.0	*0.9*
Norway	8.3	*-1.1*	2.1	*-0.6*	10.2	*4.0*	6.5	*-1.9*	7.9	*0.3*	20.3	*2.6*	38.7	*0.9*
Poland	5.2	*-1.0*	2.0	*0.7*	6.3	*2.7*	3.7	*1.5*	6.0	*0.6*	5.9	*-0.8*	18.1	*1.1*
Portugal	3.1	*-0.3*	2.1	*-0.6*	7.1	*1.4*	8.0	*0.1*	6.4	*0.7*	5.8	*0.8*	27.3	*2.1*
Slovak Republic	7.3	*-0.4*	1.7	*0.3*	6.7	*1.3*	6.9	*0.5*	8.5	*-0.8*	6.3	*0.0*	25.4	*-0.6*
Spain	5.9	*0.2*	2.2	*-0.5*	7.7	*2.3*	8.1	*-0.5*	5.4	*0.2*	5.9	*0.4*	27.4	*0.4*
United Kingdom	6.1	*0.3*	3.8	*-0.1*	15.7	*3.2*	5.7	*-0.6*	7.9	*0.5*	10.4	*0.3*	30.2	*0.9*
United States	4.7	*0.0*	4.2	*-0.1*	14.2	*1.6*	9.0	*-0.8*	8.6	*0.6*	10.4	*1.1*	35.4	*1.3*

. . Data not available.

a) 1992-2002 for France, Poland and Spain; 1994-2003 for Ireland and the United Kingdom; 1995-2003 for Belgium, the Czech Republic, Greece and the Slovak Republic.

b) Excluding Domestic services for France, Hungary, Poland, Portugal, the Slovak Republic, Spain and the United Kingdom.

Source: OECD Secretariat calculations based on the OECD STAN database for Industrial Analysis.

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