# OECD Employment Outlook 2013

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# *Foreword*

*The* OECD Employment Outlook *provides an annual assessment of key labour market developments and prospects in member countries. Each edition also contains several chapters focusing on specific aspects of how labour markets function and the implications for policy in order to promote more and better jobs. This year's special chapters cover three topics: recent reforms of employment protection legislation; activation policies; and displaced workers. Reference statistics are also included.*

*The* OECD Employment Outlook 2013 *is the joint work of staff of the Directorate for Employment, Labour and Social Affairs. It has greatly benefited from contributions from national government delegates. However, the* Outlook*'s assessments of countries' labour market prospects do not necessarily correspond to those made by the national authorities concerned.*

*This report was edited by Mark Keese and is based on contributions from Alexander Hijzen and Pascal Marianna (Chapter 1), Andrea Bassanini (Chapter 2), Dan Finn (a consultant from the University of Portsmouth) and David Grubb (Chapter 3), and Glenda Quintini and Danielle Venn (Chapter 4). Research assistance was provided by Dana Blumin, Sylvie Cimper, Thomas Manfredi, Sébastien Martin, Agnès Puymoyen and Paulina Granados Zambrano. Editorial assistance was provided by Rossella Iannizzotto, Monica Meza-Essid, Marlène Mohier and Pascale Rossignol.*

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# Editorial

# Addressing the social dimension of the crisis through adequate income support and effective activation policies

*In many countries, the social fabric is being strained by persistently high unemployment…*

Concerns are growing in many countries about the strains that persistently high levels of unemployment are placing on the social fabric. Over five years have passed since the onset of the global financial and economic crisis but an uneven and weak recovery has not generated enough jobs to make a serious dent in unemployment in many OECD countries. In April 2013, 8% of the OECD labour force was unemployed representing over 48 million people, almost 16 million more than in 2007. While there have been some encouraging signs of a recovery in employment growth in the United States, this has been offset by the return of recession in the euro zone with an associated further rise in its unemployment rate to a new record of 12.1% in April 2013. According to the most recent OECD economic projections (May 2013), unemployment in the OECD area is unlikely to fall below its current level until well into 2014.

*… and rising inequality in market incomes.*

In many countries, these difficult labour market conditions have been exacerbated by an unequal sharing of the hardship that has resulted from the crisis. Job loss and a lack of job opportunities have been concentrated among low-paid workers, more than offsetting declines in earnings of high-paid workers (either in absolute terms or relative to low-paid workers), which were often only temporary. Consequently, inequality in the market incomes of households (i.e. their incomes before taking account of transfers and taxes) rose more in the period 2007 to 2010 than in the previous 12 years in most countries for which data are available.

*Social programmes have so far cushioned the impact of the crisis on the most vulnerable, but are under strain…*

The initial policy response to the surging labour market problems and social needs emanating from the crisis was to set up or strengthen support programmes to protect the most vulnerable groups. This has helped to cushion household incomes and, in turn, to support aggregate demand and employment. However, these programmes are under increasing strain in many countries: social welfare needs have increased since the beginning of the global crisis, but the fiscal resources available to meet these demands have often shrunk.

*… reinforcing the need for "doing more with less" and a co-ordinated approach to income support buttressed by activation policies.*

In a nutshell, governments are facing the challenge of "doing more with less". The appropriate response must be a combination of social and activation policies that provide adequate income support for the most vulnerable groups, while encouraging and helping these groups to either return to work or to improve their job readiness and employability.

*Income support to alleviate hardship is essential, and must be targeted at the most vulnerable.*

Income support measures are essential for cushioning the damaging effects of the crisis. They also help to sustain demand for goods and services which, in turn, contributes to growth and future employment gains. But to be effective, these measures should account, as much as possible, for the individual circumstances of the unemployed and other vulnerable groups.

*Adequate income support must be provided for the long-term unemployed…*

Unemployment benefits have acted as crucial automatic stabilisers during the crisis, limiting the negative impact of job and earnings losses on household incomes. They should be allowed to continue to play this role. However, a growing number of individuals are experiencing long spells of joblessness in many countries and so risk losing their entitlement to unemployment benefits and falling back on less generous social assistance. In this context, it is important that this assistance adequately supports families in hardship, and minimum-income benefits may need to be strengthened, especially where long-term unemployment remains very high and those affected have little access to other forms of support.

*… backed up by an activation strategy to help and encourage the unemployed to find jobs.*

At the same time as ensuring that adequate income support measures are available for the most vulnerable groups, it is essential that a strong employment-focused activation system is in place to help and encourage the unemployed to find jobs. This requires a mix of measures which assist with job search and matching, while also reducing barriers to employment.

There is no unique formula for effective activation of the unemployed and other jobless groups as this will depend on each country's institutional arrangements, benefit system and other elements of its labour market. Nevertheless, as set out in Chapter 3 of this year's *OECD Employment Outlook*, a number of general lessons for policy can be distilled from the OECD's in-depth country reviews of activation strategies.

*The right institutional arrangements are key.*

First, institutional arrangements matter in terms of the way welfare benefits and employment services are delivered and the way welfare benefits are funded. In several countries, there has been a merging of public employment service and benefit agencies to create a "one-stop shop". In the United Kingdom, this has improved employment outcomes and services for clients. The experiences of Finland, Ireland, Switzerland and Australia suggest that partnership approaches between organisations and agencies (including those in the private and not-for-profit sector) can improve the co-ordination of service delivery, especially for disadvantaged client groups or in high-unemployment areas.

It is also important to ensure that there is a good alignment of institutional incentives across national, regional and local levels, especially when there is a decentralised responsibility for the delivery of employment services but centralised funding of welfare benefits. For example, in Finland, national and local governments have agreed to share the cost of benefit payments to the target group, accompanied by the development of jointly managed service centres for the very-long-term unemployed.

*Effective monitoring of public and private employment services is required.*

Second, the effectiveness of public and private employment services can be improved through more robust performance management that goes beyond simple comparisons of gross placement rates. For example, Australia and Switzerland rate the performance of local employment offices after adjusting for differences in terms of the profile of their clients and local labour market conditions. This approach, if well developed, generates relatively accurate and objective ratings of local office performance and can ultimately serve to improve the effectiveness of the employment services that are delivered.

*Activating recipients of "inactive" benefits is challenging and requires time to succeed.*

Third, it is not easy to "activate" recipients of benefits that previously were not required to be available for work. Therefore it may take time for measures targeted at these groups to show up in higher employment rates. Lone-parents on welfare benefits and those on disability benefits (with a capacity to work) have been the target of a range of measures in several countries introducing some form of availability-for-work requirement. While in the short run this may increase open unemployment rather than reduce it, the net effect in the longer run is to increase the employment rate. Therefore, there is a need to "stay the course" when trying to encourage a return to work of groups that have been formerly exempted from job search and work availability requirements. However, care is needed in the present circumstances of high unemployment in many countries to avoid overloading employment services with new client groups.

*Tackling a sharp increase in unemployment requires adequate resources and a flexible approach.*

Fourth, it is important that resources for cost-effective, active labour market programmes adjust to changing labour market conditions. At present, when many countries are facing high and increasingly persistent unemployment, it is important that sufficient resources are available to: handle higher client flows; compensate for a lack of job vacancies with focused measures to maintain and improve job readiness; and activate the long-term unemployed. While it may be difficult to scale-up active labour market programmes in a recession in both a timely and effective manner, this could be facilitated by contracting more services out to private sector providers.

*Youth need to be a high priority for policy action.*

Youth need to be actively supported to avoid long-term "scarring" effects as a result of prolonged unemployment and low-income spells early on in their careers. Governments should react swiftly to increases in youth joblessness and poverty, but support should be targeted to the most vulnerable youth and geared towards activation, as set out in the OECD Action Plan for Youth which was adopted by OECD Ministers in May 2013. This plan calls for actions across a broad front in order to: foster job creation for youth; address underlying problems that affect their access to high quality and relevant education; and promote effective use of their skills in the labour market.

*The best combination of policies will depend on labour market conditions.*

The best combination of policies to tackle unemployment and social exclusion will depend on labour market conditions in each country and how they evolve. With large numbers of workless households in many countries, the overarching objectives of "active" support include facilitating continued job search of working-age family members and ensuring that

families benefit quickly once labour-market conditions improve. As the recovery gains momentum, promoting labour supply becomes more important and the focus of active labour-market policies should shift from more labour-demand support towards in-work support for low-income working families. To be effective, work-related support should not be restricted to individual job losers, but directed at non-working partners as well.

*Addressing the social crisis through a balanced approach to social and activation policies is not easy but must be done.*

Finding the appropriate balance between providing much needed income support to the households hit hardest by the crisis and maintaining a strong activation stance to encourage and help the unemployed find jobs is not easy. Nevertheless, a comprehensive approach to employment-friendly social and activation policies is essential to promote a stronger and more inclusive recovery. Such an approach will strengthen the social fabric by helping to prevent the social wounds caused by the crisis from festering and compromising future improvements in economic growth and well-being.

Stefano Scarpetta, Director
OECD Directorate for Employment,
Labour and Social Affairs

## Acronyms and abbreviations

| | |
|---|---|
| **ALMP** | Active labour market programme |
| **B/U ratio** | Ratio of the stock of UB recipients to the stock of LFS unemployed |
| **CE** | Community Employment (Ireland) |
| **DES** | Disability Employment Services (Australia) |
| **DSP** | Department of Social Protection (Ireland) |
| **DWP** | Department of Work and Pensions (United Kingdom) |
| **EI** | Employment insurance (Japan) |
| **ELY** | Economic Development, Transport and Environment Centre (Finland) |
| **EPC** | Additional employment protection regulations against collective dismissals |
| **EPFTC** | Employment protection legislation concerning standard fixed-term contracts |
| **EPL** | Employment protection legislation |
| **EPR** | Employment protection for regular workers against individual dismissals |
| **EPRC** | Employment protection for regular workers against individual and collective dismissals |
| **EPT** | Employment protection legislation concerning temporary contracts |
| **EPTWA** | Employment protection legislation concerning temporary work agency employment |
| **ESA** | Employment and Support Allowance (United Kingdom) |
| **FÁS** | Training and Employment Authority (*Foras Áiseanna Saothair*) (Ireland) |
| **FÁS-ES** | Training and Employment Authority (*Foras Áiseanna Saothair*) – Employment Services (Ireland) |
| **FTC** | Fixed-term contract |
| **GP** | General practitioner |
| **GDP** | Gross domestic product |
| **IAP** | Individual action plan |
| **IB** | Incapacity benefit (United Kingdom) |
| **ISCO** | International Standard Classification of Occupations |
| **ISSP** | International Social Survey Programme |
| **IT** | Information technology |
| **JCP** | Jobcentre Plus (United Kingdom) |
| **JN** | Job Network (Australia) |
| **JSA** | Job Services Australia (Australia) |
| **JSCI** | Job Seeker Classification Instrument (Australia) |
| **KELA** | Social Insurance Institution (*Kansaneläkelaitos*) (Finland) |
| **LAFOS** | Labour Force Service Centre (Finland) |
| **LCTW** | Local Connections to Work (Australia) |
| **LES** | Local Employment Service (Ireland) |
| **LFS** | Labour force survey |

| | |
|---|---|
| **LMS** | Labour Market Support (Finland) |
| **MAMAC** | Medico-Labour-Market Assessments with Case Management (*Medizinisch-arbeitsmarktliche Assessments mit Case Management*) (Switzerland) |
| **NAIRU** | Non-Accelerating Inflation Rate of Unemployment |
| **NAV** | National Labour and Welfare Service (*Nye arbeids- og velferdsetaten*) (Norway) |
| **NEAP** | National Employment Action Plan (Ireland) |
| **NEET** | Youth not in employment, education or training |
| **NSA** | Newstart Allowance (Australia) |
| **O*NET** | Occupational Information Network (United States) |
| **OLS** | Ordinary least squares |
| **PES** | Public employment service |
| **PEX** | Probability of Exit (Ireland) |
| **SA** | Social assistance |
| **SOLAS** | Further education and training authority (*Seirbhísí Oideachais Leanúnaigh agus Scileanna*) (Ireland) |
| **T&E Centre** | Employment and Economic Development Centre (Finland) |
| **TWA** | Temporary work agency |
| **UA** | Unemployment assistance |
| **UB** | Unemployment benefit |
| **UI** | Unemployment insurance |
| **WCA** | Work Capability Assessment (United Kingdom) |
| **WFI** | Work-focused Interview (United Kingdom) |

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# *Executive summary*

## High levels of unemployment are set to continue

Over five years have passed since the onset of the global financial and economic crisis and yet unemployment still remains high in many OECD countries. In April 2013, there were over 48 million people out of work, representing an unemployment rate of 8.0%, only half a percentage point below the crisis peak of 8.5%. But there are big variations between countries: unemployment is close to or below 5% in five OECD countries, but exceeds 25% in two others (Greece and Spain). Looking ahead, the OECD projects little change in unemployment for the OECD area through to the end of 2014, with a projected rise by at least a percentage point in six European countries offset by a fall by half a percentage point or more in five other OECD countries.

## Older workers are faring relatively well

Certain groups, most notably low-skilled young men, are doing particularly poorly in the labour market. By contrast, older workers have weathered the crisis better than in previous deep recessions. A number of factors are at work and appear to predate the crisis: among them is a trend among older workers to retire at a later age, in part because they are better educated and healthier than previous generations. The closure or tightening of access to early retirement schemes has also played a role.

An analysis of the relationship between employment of younger and older workers over time and across countries shows that the better performance of older workers in the labour market did not come at the expense of youth. This reinforces the conclusion that previous attempts by governments to help youth gain a foothold in the labour market by encouraging early retirement among older workers were costly policy mistakes. Reassuringly, governments have so far resisted introducing early retirement schemes in response to today's high rates of youth unemployment. Instead they should pursue strategies that will improve employment prospects for both younger and older workers, including through growth-enhancing structural reforms and targeted active labour market measures to help those in both groups with specific problems of finding or staying in employment.

## Employment protection legislation is becoming less strict

Over the past decade, and particularly since the crisis, OECD countries have tended to reduce the strictness of employment protection legislation – the rules covering the hiring and firing of workers – especially regarding collective and individual dismissals. There have also been changes, albeit less far-reaching, to reduce the gap between the level of protection afforded to permanent and temporary contracts. In the 1990s, temporary contracts were widely deregulated, which fuelled the emergence of dual labour markets split between workers on stable, long-term contracts and others on insecure, short-term contracts.

These recent reforms should help ensure labour markets respond more flexibly to economic change while reducing the gap between workers on temporary and permanent contracts. Research suggests workers, on average, should benefit, as it will become easier for them to find jobs that match their skills. Inevitably, however, some workers may face significant losses. Governments need to respond with policies to reduce the negative impact of these reforms and help such workers find new jobs.

## Well-designed activation policies encourage and help the jobless find jobs

Activation policies refer to labour market policies that aim to encourage people on welfare benefits to return to work. Approaches vary, but they include help with job hunting and training, and linking benefit payments to evidence of job search and requirements to participate in measures to improve employability. Based on detailed reviews by the OECD of activation policies in seven countries, a number of key lessons are identified.

First, in order to prevent welfare dependency, all countries with a well-developed system of income support for unemployed people can benefit from a strong employment-focused activation system. This should consist of measures to assist job search and improve work readiness, backed up by requirements to participate in employment and training programmes. Second, it is important to persevere with reforms to introduce or extend work-related requirements for groups such as lone parents, unemployed older workers and people with partial work-capacity. These reforms have proved to be successful in helping these groups return to work even if initially they may result in some increase in "open" unemployment as these groups lose their inactive status. Third, implementing a successful activation strategy may require institutional reforms such as co-ordinating the administration of benefits and job-search assistance as well as funding arrangements at the national and local levels. Finally, the effectiveness of public and private employment services can be improved through performance management based on measures of employment outcomes that are adjusted for jobseeker and local labour market characteristics.

## Getting back to work after redundancy

In countries for which data is available, between about 2% and 7% of workers face lay-offs or redundancies in a typical year. Compared with prime-age workers, older and younger workers are at greater risk, although their experience of finding new jobs differs. Older workers generally find it harder to re-enter the workforce than younger workers and suffer greater losses in earnings whereas younger people find a new job relatively quickly and one that requires higher skill levels. Others at higher risk of redundancy are workers in small firms and those who rely on physical and craft skills which may not be much in demand in expanding sectors such as information technology.

Because many aspects of non-wage benefits rise with job tenure, laid-off workers who find a new job are less likely to be entitled to paid holidays and sick leave. They may also be required to work unsociable hours or part-time. In general, however, the main financial cost for laid-off workers results from loss of salary while out of work and not reduced earnings in a new job.

There are several policy implications from these findings: To reduce the financial burden on laid-off workers, it is essential to get them back to work quickly. Also, if public resources are scarce, they should be targeted at older and low-skilled workers. Finally, relying on firms to provide outplacement and retraining may not be the best approach if layoffs are concentrated in small firms that are often not required to offer or fund such services.

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*Chapter 1*

# All in it together? The experience of different labour market groups following the crisis

*This chapter assesses recent developments in the labour market situation in OECD countries and discusses the short-term outlook based on the latest OECD projections. A special focus is given to documenting how different socio-economic groups have fared since the start of the global financial crisis. The situation of older workers is analysed in more detail as, unlike for the other groups, they have fared better than in the aftermath of previous major economic downturns. An assessment is also made of whether this improvement for older workers has come at the expense of poorer employment outcomes for youth. This issue is of particular importance given that governments may come under pressure to resort to measures that encourage older workers to withdraw from the labour market in the hope that this frees up jobs for young workers.*

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## Key findings

The global recovery in the past four years has been generally weak and uneven, with increasingly divergent developments across countries. Aggregate demand remains depressed in many countries and the labour market in most OECD countries still bears the scars of the financial and economic crisis. As a result, governments in many countries are confronting a range of labour market challenges:

- *A large and persistent jobs gap.* The jobs gap for the OECD area, a measure of the cyclical shortfall in employment based on the difference between actual and potential employment, has increased by 2.4 percentage points since the start of the crisis to the last quarter of 2012. According to the latest OECD projections, the jobs gap is expected to narrow to 1.9% at the end of 2014. However, in all euro area countries, except Estonia and Germany, the jobs gap is expected to widen further through to the end of 2014. In most other countries with relatively large jobs gaps, such as Denmark, New Zealand and the United States, it is expected to narrow.
- *Unemployment remains persistently high.* As of April 2013, the OECD-wide unemployment rate stood at 8.0%, only half a percentage point down from its peak level of 8.5% reached in 2009. Across the OECD, more than 48 million persons are unemployed, almost 16 million more than at the start of the crisis. According to the latest OECD projections, the unemployment rate is projected to stay broadly constant in the OECD area until the end of 2014.
  - The cross-country variation in unemployment rates has risen markedly since the start of the crisis. The unemployment rate has remained at or below 5% in five countries (Austria, Japan, Korea, Norway and Switzerland) but exceeds 25% in two countries (Greece and Spain).
  - The largest increases in the unemployment rates since the onset of the crisis occurred in Greece and Spain (more than 18 percentage points) followed by Ireland, Italy, Slovenia and Portugal (5 to 10 percentage points). By contrast, in Japan and Korea, unemployment rates are less than half of a percentage point above their pre-crisis levels, while in Chile, Germany, Israel and Turkey, unemployment rates are now lower than at the start of the crisis.
  - The latest OECD projections point to further increases in unemployment of one percentage point or more through to the end of 2014 in six European countries (Greece, Italy, the Netherlands, Poland, Portugal and Spain), while reductions of at least half a percentage point are expected in five countries (Canada, Estonia, Iceland, New Zealand and the United States).
- *Slowing real earnings growth.* Slower growth in real earnings is helping to restore lost competiveness in a number of countries where wage growth often exceeded labour productivity growth prior to the crisis, but it is putting additional financial pressures on households and holding back demand. It reflects a variety of factors including the

reduced bargaining power of workers in the context of high unemployment, the role of negotiated wage restraints between the social partners in collective bargaining agreements or jobs pacts to prevent (further) job losses (e.g. Austria, Germany and Sweden) and wage cuts/freezes in the public sector (e.g. Greece, Ireland and Portugal).

- *Increasing income inequality.* While the upwards pressure on earnings inequality has eased in the wake of the crisis (presumably due to the concentration of job losses among low-paid workers), broader measures of inequality based on household income from work and capital have tended to widen. However, these effects were mitigated by changes in public transfers and personal income taxes, which were quite effective in many countries in limiting rises in inequality in terms of disposable income (i.e. the effective incomes that households can spend).

Labour market outcomes have evolved very differently across socio-economic groups in the aftermath of the global financial crisis. Low-skilled young men have been the most affected in terms of declining employment and labour force participation, while low-skilled prime-age men have been the hardest hit in terms of rising unemployment. By contrast, the employment rate among older individuals increased, continuing a trend apparent before the crisis, although unemployment rates have tended to rise as well. The decline in youth employment was matched by increased enrolments rates in education and training, while the rate of youth not in employment, education and training has been broadly constant.

- *The better employment performance of older workers is particularly notable.* While older workers tended to withdraw in large numbers from the labour market following major recessions in the 1970s, 1980s and early 1990s, this time round they have stayed in the labour force and even increased their participation following the global financial crisis. This is similar to the pattern observed in the aftermath of the (shallower) recessions in the early 2000s, suggesting it may be part of a longer-term trend. For other demographic groups, the evolution of labour market outcomes following the global financial crisis has been similar to the typical pattern following previous major economic downturns.
- *In many OECD countries older workers have increasingly postponed their retirement decisions,* while in others gradual reductions in disability (e.g. Poland) and inactivity for other reasons (e.g. Ireland, the Netherlands, Sweden) are the main drivers behind rising labour force participation. The increase in the effective retirement age reflects a combination of changes in the characteristics of older workers in terms of improved education levels and health, as well as policy reforms and measures to increase incentives to continue working at an older age. These include pension reforms, the phasing out of early retirement schemes and the tightening of eligibility criteria for other social transfer programmes that operated as *de facto* early retirement schemes.

The analysis in this chapter has a number of implications for policy:

- Given the current and projected extent of labour market slack, *the main policy priority must be to take action to underpin aggregate demand* and boost consumer and investor confidence. Monetary policies have to remain accommodative. While fiscal consolidation is required in many OECD countries, its speed should be calibrated to country-specific circumstances so as to avoid excessive tightening.
- The bleak labour market situation of youth in many OECD countries may generate pressures on governments to resort to measures that actively encourage older workers to withdraw from the labour market in the hope that this frees up jobs for young workers.

New evidence in this chapter suggests that youth and older workers are not substitutes in employment. This means that the good performance of older workers did not come at the expense of youth and that *encouraging older workers to leave the labour force would be a mistake*. Not only would this be ineffective in alleviating the problem of high and persistent unemployment, but it would also be very expensive for the public purse. It is, therefore, reassuring that, so far, governments appear to have resisted pressures to do so.

- Rather than promoting early retirement, governments should pursue a strategy that will lead to better employment prospects for both younger and older people, including: i) growth-enhancing structural reforms that have the potential to benefit the labour market outcomes of both youth and older workers; ii) targeted active labour market policies to help youth and older workers with specific problems of finding or staying in employment; and iii) encouraging employers to adopt a more active stance in managing an age-diverse workforce.

## Introduction

The global recovery in the past four years has been muted and uneven. Consequently, many OECD countries still face a situation where aggregate demand remains weak. However, the picture is far from uniform across countries. In some countries the labour market recovery has come to a halt or even gone into reverse, while in others the recovery is gathering pace or the unemployment impact of the crisis has been contained. This chapter provides an update on the labour market situation in OECD countries and discusses the short-term labour market outlook based on the latest OECD projections from May 2013.

A special focus is given to documenting how labour market outcomes have evolved since the start of the global financial crisis across different socio-economic groups. Previous editions of the *OECD Employment Outlook* have already shown that youth, men and low-skilled workers were hit the hardest, while the impact on older workers and women has been more muted (OECD, 2010a and 2011a). However, to date there has been little systematic analysis as to whether the patterns observed in the aftermath of the global financial crisis have been different from those following previous recessions and how any such differences could be explained. Since the employment performance of older workers in the aftermath of the global financial crisis stands apart most from other groups and the experience of previous deep economic downturns, their labour market outcomes are analysed in more detail. In particular, in light of the bleak employment situation for youth in many OECD countries, an assessment is made of whether improved labour-market outcomes for older workers have come at the expense of poorer outcomes for youth. This issue is of particular importance given that governments may come under pressure again to resort to measures that encourage older workers to withdraw from the labour market – as occurred in previous downturns – in the hope that this frees up jobs for young workers.

The chapter is organised as follows. Recent labour market developments and short-term prospects are discussed in Section 1. In Section 2, a systematic comparison is presented of the evolution of labour market outcomes of different socio-economic groups in the aftermath of the global financial crisis with the pattern observed during previous periods of recession and recovery. Possible explanations for the strong performance of older workers in the aftermath of the global financial crisis are also discussed. In Section 3

new evidence is provided on the relationship between the employment rates of older workers and youth in different phases of the business cycle. Finally, some implications for labour market policy are briefly discussed in the conclusions.

## 1. The labour market situation will remain difficult in the near term

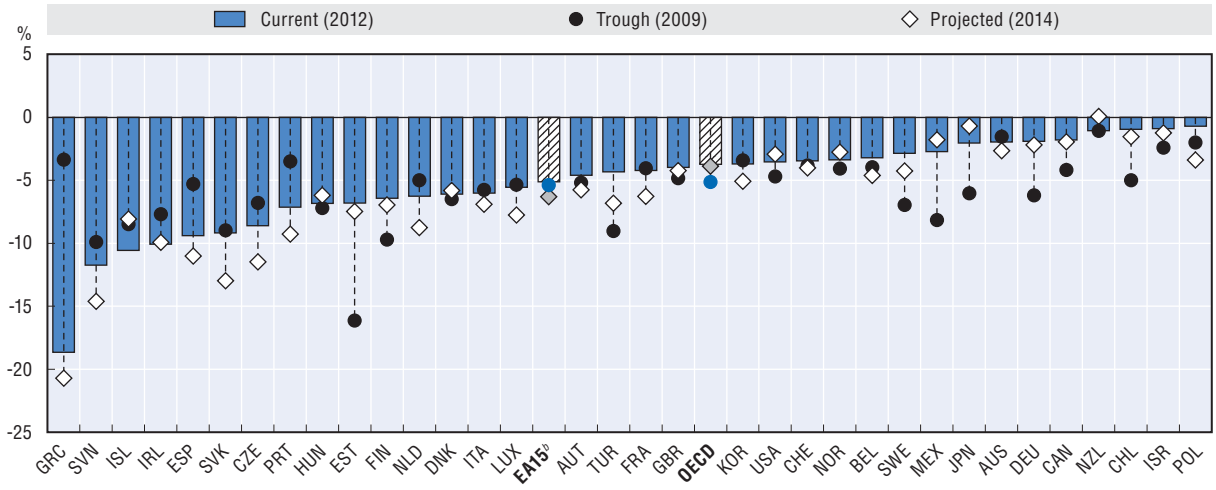
In this section, an assessment is made of recent labour market developments and the short-term outlook based on the latest OECD projections from May 2013 (OECD, 2013e). For further statistical information on recent and projected developments, see Table 1.A1.1 of the annex to this chapter.

### *Aggregate demand remains weak in the majority of OECD countries…*

Five years since the start of the global financial crisis, aggregate demand remains weak, resulting in a considerable slack in product and labour markets. The extent of the current economic slack can be gauged by the *output gap*, which measures the percentage difference between actual GDP and OECD estimates of potential GDP.[1] Figure 1.1 shows the change in the output gap since the start of the global financial crisis. By 2012, the OECD output gap was still 3.7% higher than at the start of the global financial crisis (in absolute value) down from 5.2% at the depth of the crisis. The largest increases in the output gap occurred in euro area countries that were most affected by the sovereign debt crisis (e.g. Greece, Ireland, Portugal and Spain), as well as in the Czech Republic, Iceland, the Slovak Republic and Slovenia. According to the latest short-term OECD projections, the OECD output gap is expected to narrow in 2014. The relative stability of the OECD output gap over the next two years hides considerable diversity across countries, with a further and substantial weakening in aggregate demand projected for the Czech Republic, France,

Figure 1.1. **Aggregate demand remains depressed**

Percentage-points change in the output gap[a] since the start of the global financial crisis (2008) in 2009 (trough of the output gap), 2012 (current output gap) and 2014 (projected output gap)




*Note:* Countries shown by ascending order of the percentage-points change in output gap in 2012.
*a)* The output gap is defined as the difference between the actual GDP and OECD estimates of potential output.
*b)* Aggregate of 15 OECD countries of the euro area.
*Source:* OECD calculations based on *OECD Economic Outlook Database* (*http://dx.doi.org/10.1787/eo-data-en*).

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Greece, Luxembourg, the Netherlands, Poland, Portugal, Slovenia and Turkey, while a significant narrowing of the output gap is projected to occur in Hungary, Iceland, Japan, Mexico, Norway, New Zealand and the United States.

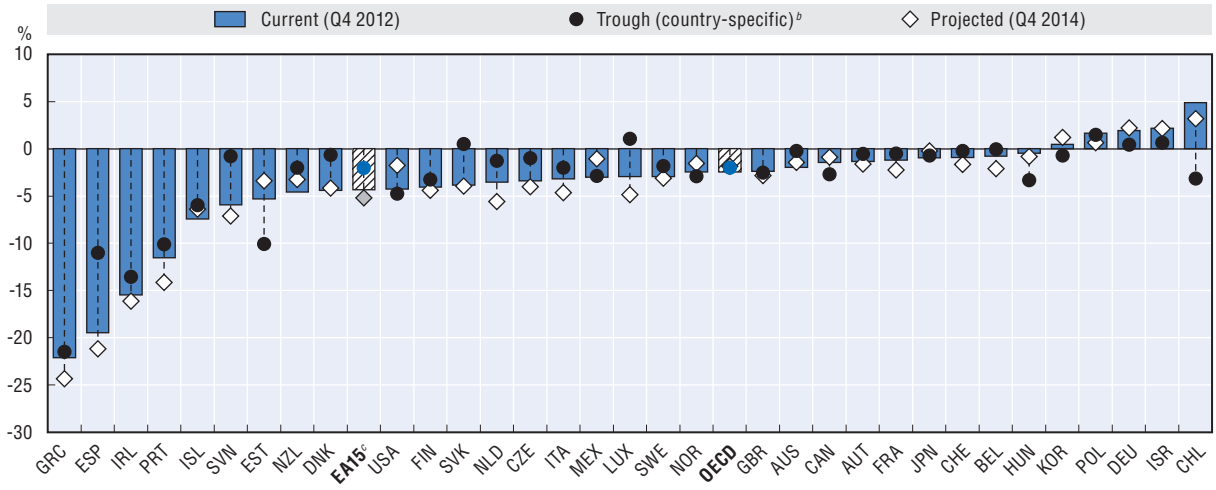
### *... leading to little change in a large jobs gap...*

The lack of aggregate demand has meant that in many countries there is still a large cyclical shortfall in employment as measured by the jobs gap.[2] The jobs gap is defined as the percentage difference between actual employment and OECD estimates of potential employment. While the output and jobs gaps are closely related, the relationship between the two can differ importantly across countries due to differences in the responsiveness of overall labour input to output shocks and differences in the relative importance of employment, hours and wages as margins of adjustment to economic shocks (OECD, 2012a). Figure 1.2 presents the percentage-points change in the jobs gap since the start of the global financial crisis at different points in time.[3] As of Q4 2012, the jobs gap for the OECD area had increased by 2.4 percentage points. The largest increase occurred in Greece, of over 20 percentage points of employment. According to the latest OECD projections, the jobs gap for the OECD area is expected to narrow to 1.9 by the end of 2014. It is expected to deteriorate substantially further in Greece and Portugal. However, in all euro area countries except Estonia and Germany, the jobs gap is expected to widen further through the end of 2014. In most other countries with relatively large jobs gaps, such as Denmark, Estonia, New Zealand and the United States, it is expected to narrow.

The rise in labour market slack since the start of the global financial crisis may have either taken the form of increased layoffs leading to new inflows into unemployment or reduced hiring increasing the incidence of long-term unemployment and possibly inactivity, as the lack of available job opportunities discourages entry into the labour market or a growing part of the unemployed from searching actively for a job. As shown in

Figure 1.2. **The jobs gap has endured**

Percentage-points change in the jobs gap[a] since the start of the global financial crisis (Q4 2007)




*Note:* Countries are shown by ascending order of the jobs gap in Q4 2012.

*a)* The jobs gap is defined as the difference between actual employment and OECD estimates of potential employment.

*b)* Country-specific trough is derived in terms of the output gap.

*c)* Aggregate of 15 OECD countries of the euro area.

*Source:* OECD calculations based on the *OECD Economic Outlook Database* (*http://dx.doi.org/10.1787/eo-data-en*).

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Box 1.1, job losses since the global financial recession have mostly taken the form of rising unemployment, while labour force participation has remained broadly stable in the OECD area except in a few countries such as Ireland and the United States. During the early period of the crisis until 2009, rising unemployment largely reflected a surge in unemployment inflows, while the role of long-term unemployment became increasingly important in the period 2009 to 2011 as job opportunities for the unemployed remained severely depressed. The relative importance of short and long-term unemployment has been broadly stable since the beginning of 2011, with each accounting for about half of the existing labour market slack.

### Box 1.1. **Decomposing the increase in labour market slack in unemployment and labour force participation**

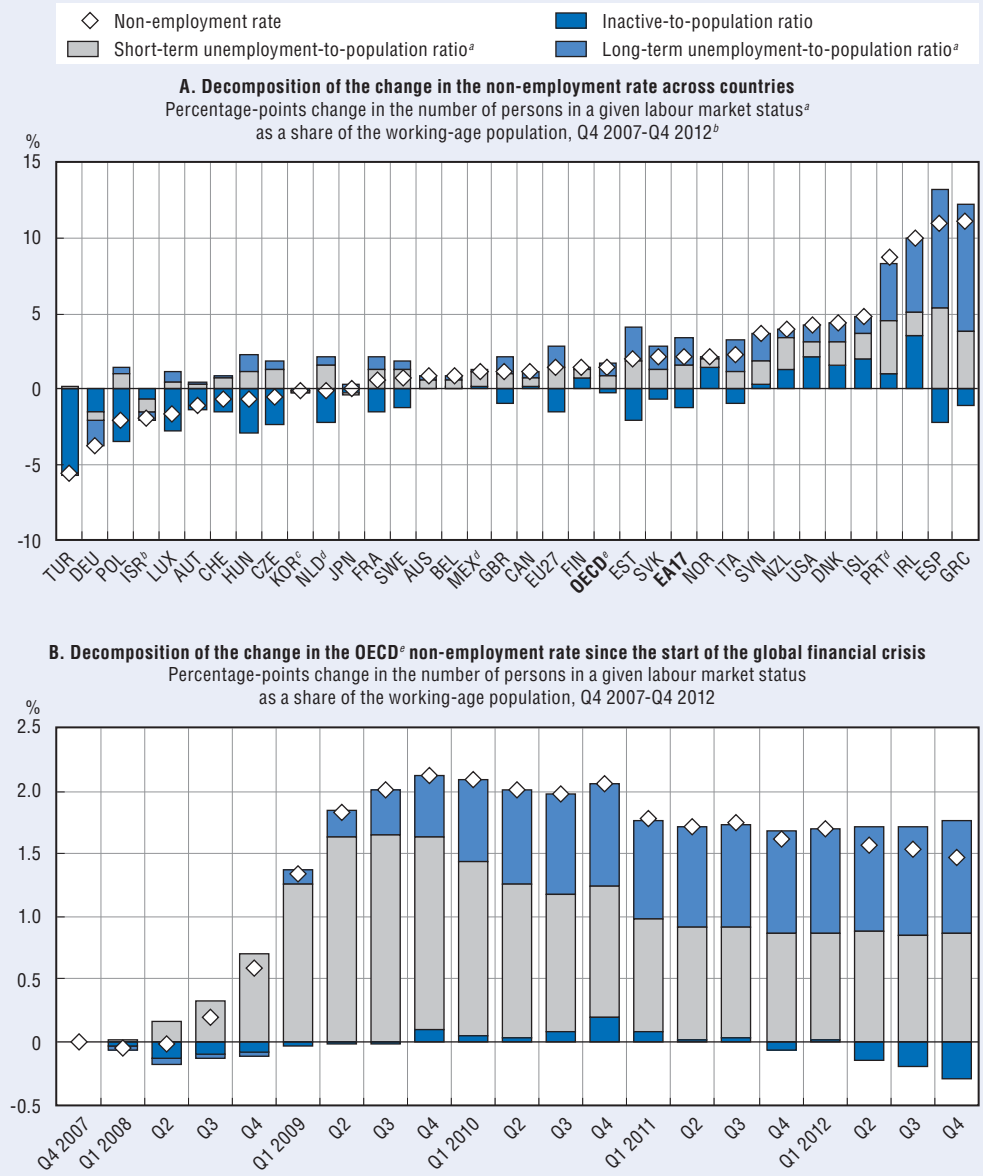
In the figure below, changes in the *non-employment* rate since the start of the crisis are decomposed into changes in short-term and long-term unemployment and changes in the inactivity rate (all defined as a share of the working-age population). The increase in labour market slack from the onset of the crisis in the last quarter of 2007 to the fourth quarter of 2012 has largely taken the form of increased unemployment with short-term unemployment (persons unemployed for less than one year) and long-term unemployment (persons unemployed for one year or more) accounting each for about half of the increase. However, the relative importance of short and long-term unemployment has changed significantly since the start of the global financial crisis. One can distinguish three different phases. In the first phase from 2007 to 2009, employment losses overwhelmingly took the form of new inflows into unemployment increasing short-term unemployment, while in the second phase, from 2009 to 2011, long-term unemployment has become gradually more important. In the third phase from 2011, the relative importance of short and long-term unemployment has been broadly stable with each accounting for about half of the existing labour market slack. This reflects a combination of persistently high job-loss rates and depressed hiring rates. The rise in long-term unemployment since the start of the crisis has been most pronounced in Spain and the United States as well as other countries hard hit by the global financial crisis or the subsequent euro area sovereign debt crisis. As of Q4 2012, more than one in two unemployed had been unemployed for one year or more in Estonia, Greece, Ireland, Italy and Portugal, and two in three in the Slovak Republic.*

In the fourth quarter of 2012, the OECD-wide inactivity rate was only slightly lower by 0.3 percentage points than at the start of the global financial crisis. However, substantial increases of more than 1.5 percentage points occurred in some countries, including Denmark (1.5 percentage points), Iceland (2.0 percentage points), Ireland (3.5 percentage points) and the United States (2.1 percentage points). The situations of Estonia, Spain and, to a lesser extent, Greece stand out. In these countries, despite large employment losses, labour force participation increased. This may reflect secular long-term increases in the participation rates of women, but also the role of added-worker effects as previously inactive household members enter the labour market to compensate for any losses in household income.

* In Estonia and the Slovak Republic, the incidence of long-term unemployment was already very high before the global financial crisis.

## Box 1.1. **Decomposing the increase in labour market slack in unemployment and labour force participation** *(cont.)*

### Labour market slack takes the form of higher unemployment




*Note:* Countries are shown by ascending order of the non-employment rate in Panel A.

*a)* Short-term and long-term unemployment refer, respectively, to unemployment durations of less than 12 months and one year or more.

*b)* Q4 2007-Q4 2011 for Israel.

*c)* Short-term and long-term unemployment refer to total unemployment for Korea.

*d)* Series adjusted to take account of breaks in series: 2010 for Mexico and the Netherlands; 2011 for Portugal; and 2012 for Israel.

*e)* OECD is the weighted average of 33 countries (excluding Chile).

*Source:* OECD calculations based on the *OECD Short-Term Labour Market Statistics Database* (*http://dx.doi.org/10.1787/lfs-lms-data-en*) and national labour force surveys. See Figure 1.A2.1 of the online annex (*www.oecd.org/employment/outlook*) for country-specific decompositions of the non-employment rate over time.

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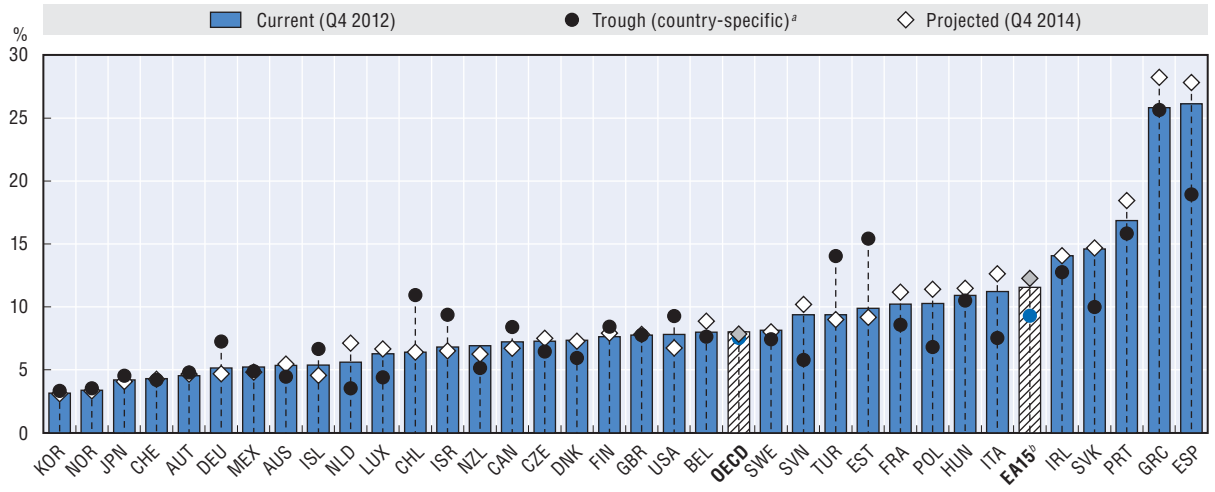
### *... and persistently high unemployment*

As the recovery has become more hesitant since the second half of 2011, the initial decline in unemployment from its crisis peak has stalled. As of April 2013, the OECD-wide unemployment rate stood at 8%. This is half a percentage point lower than its peak in October 2009 and 2.4 percentage points above its level in December 2007, at the start of the crisis. Across the OECD, more than 48 million persons are unemployed, almost 16 million more than at the start of the crisis. According to the latest OECD projections, the unemployment rate is projected to remain broadly stable through to the end of 2014.

But not all countries have fared the same and there are large differences in the level of unemployment rates across OECD countries as well as in their underlying trends (Figure 1.3). There are five countries where the unemployment rate has remained below 5% (Austria, Korea, Japan, Norway and Switzerland), while in two countries it exceeds 25% (Greece and Spain). The largest increases since the start of the global financial crisis occurred in Greece and Spain, where unemployment rates have increased by over 17 percentage points, and in Estonia, Ireland, Italy and Portugal, where they increased by between 5 to 10 percentage points. By contrast, in Austria, Japan and Korea, unemployment rates are less than half of a percentage point above their pre-crisis levels, while in Chile, Germany, Israel and Turkey, unemployment rates are now lower than at the start of the crisis despite some of these countries having been hit hard by the economic downturn. The latest OECD projections point to further increases in the unemployment rate of one percentage point or more between the fourth quarter of 2012 and the end of 2014 in six European countries (Greece, Italy, the Netherlands, Poland, Portugal and Spain), while a decline of at least half a percentage point is projected in five countries (Canada, Estonia, Iceland, New Zealand and the United States).

Figure 1.3. **Persistently high levels of unemployment**

Unemployment rates at the business-cycle trough (in terms of the output gap), in Q4 2012 and Q4 2014, as a percentage of the labour force




*Note:* Countries shown by ascending order of the current unemployment rate.

*a)* Country-specific trough is derived in terms of the output gap.

*b)* Aggregate of 15 OECD countries of the euro area.

*Source:* OECD calculations based on the *OECD Economic Outlook Database* (*http://dx.doi.org/10.1787/eo-data-en*).

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As discussed in Chapter 1 of the *OECD Employment Outlook 2012* (OECD, 2012a), persistently high levels of unemployment and, particularly, long-term unemployment could lead to a rise in structural unemployment. The estimates presented in Box 1.2 suggest that while structural unemployment may have started to increase in some OECD countries, particularly in countries such as Greece, Ireland, Portugal and Spain, the increase remains small relative to the total increase in unemployment.

### Box 1.2. **The risk of rising structural unemployment is materialising in some countries**

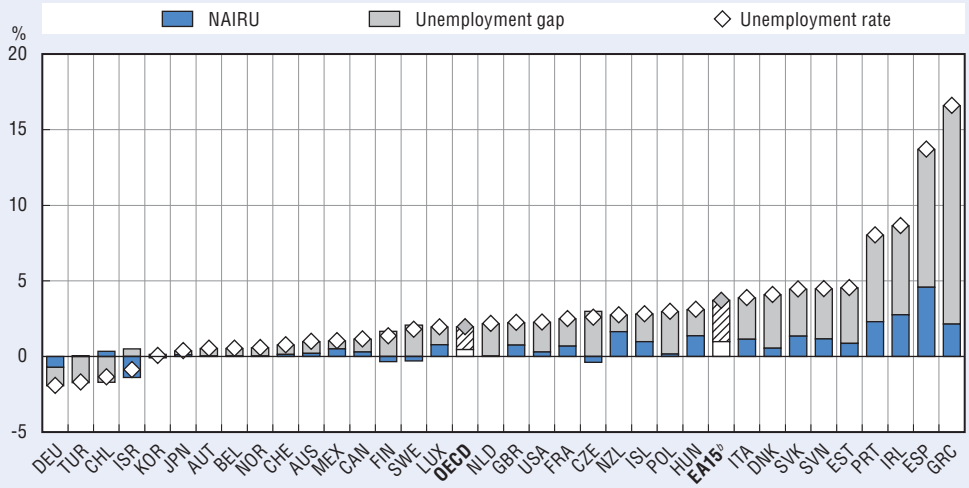
Persistently high levels of unemployment and long-term unemployment, in particular, increase the risk of rising structural unemployment as a result of scarring effects, loss of human capital and re-employment difficulties for the unemployed. In order to analyse the risk of rising structural unemployment, OECD (2012a) provided a detailed analysis of the evolution of matching frictions by examining the joint evolution of job vacancies and unemployed jobseekers using so-called "Beveridge curves", as well as aggregate matching functions. It provided suggestive evidence that, although the bulk of unemployment remains cyclical in nature, matching frictions have started to increase in a number of OECD countries. These included, amongst others, Sweden and the United States. An alternative way of documenting possible increases in structural unemployment is by means of estimates of the non-accelerating inflation rate of unemployment (NAIRU).* The OECD Economics Department provides estimates of the NAIRU for all countries up to 2014. These estimates are based on a reduced-form Phillips-curve equation smoothed by means of a Kalman filter (see Guichard and Rusticelli, 2011, for details). The main reason for focusing on the NAIRU instead of the relationship between job vacancies and unemployed jobseekers is that it provides a concise indicator of the level of structural unemployment for which OECD projections are available.

Using OECD estimates of the NAIRU, the figure below decomposes the total change in the unemployment rate since the start of the global financial crisis into a cyclical and a structural component (the unemployment gap and the NAIRU). It shows that structural unemployment as measured by the NAIRU has tended to increase since the start of the crisis in the majority of OECD countries, but also that its increase has been small relative to the overall increase in unemployment. Large rises in the NAIRU of two or more percentage points are confined to four countries – Greece (2 percentage points), Ireland (3 percentage points), Portugal (2 percentage points) and Spain (5 percentage points) – explaining between one-sixth and one-third of the overall rise in unemployment in these countries. OECD projections further suggest that the NAIRU is expected to remain broadly constant or decline between 2012 and 2014 in the majority countries where the increase in structural unemployment has been limited so far. However, it is expected to increase further in Greece, Portugal and Spain as well as in Italy which did not see much of an increase so far. While the NAIRU estimates presented here should be interpreted with due caution, the overall message that the bulk of the rise in unemployment so far has been cyclical is consistent with the absence of a vigorous recovery in aggregate demand (cf. Figure 1.1). Nevertheless, the longer cyclically elevated levels of unemployment are allowed to persist, the higher the risk that unemployment will become structural and the more difficult it will be to bring unemployment down to pre-crisis levels.

Box 1.2. **The risk of rising structural unemployment is materialising in some countries** *(cont.)*

**The rise in unemployment is largely cyclical but the structural component has started to rise**

Percentage-points change in the unemployment gap[a] and the NAIRU since the start of the global financial crisis, 2008-12




*Note:* Countries shown by ascending order of the change in unemployment rate in 2008-12.
NAIRU: Non-Accelerating Inflation Rate of Unemployment.
*a)* Unemployment gap is the difference between the unemployment rate and the NAIRU.
*b)* Aggregate of 15 OECD countries of the euro area.
*Source:* OECD calculations based on *OECD Economic Outlook Database* (*http://dx.doi.org/10.1787/eo-data-en*).

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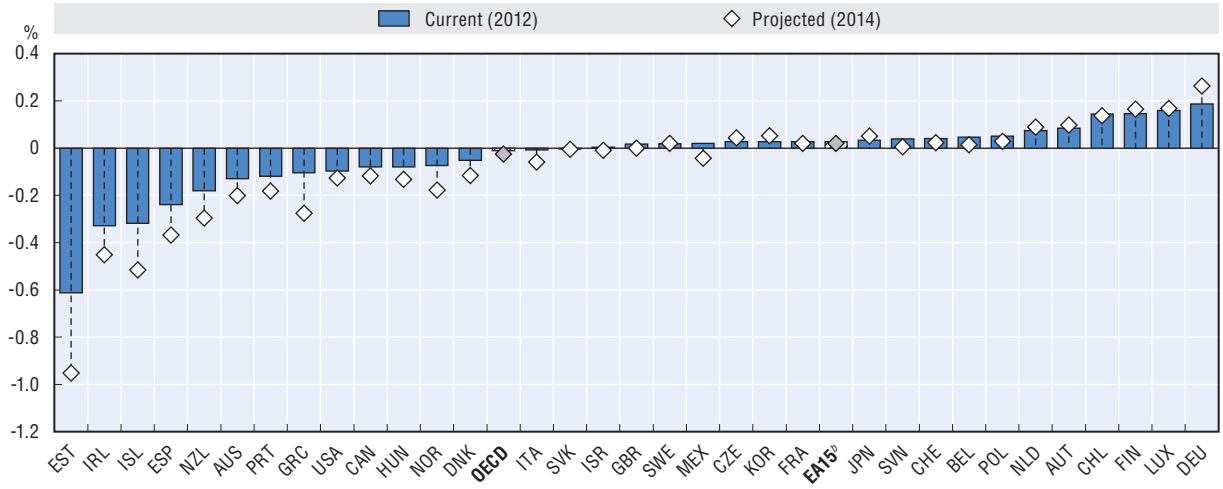
* The NAIRU is based on the notion that in the long-run, inflation has only nominal effects and unemployment depends solely on structural factors, while in the short-run, the relationship between unemployment and inflation is described by the so-called "Phillips curve". The NAIRU may increase in the aftermath of a recession when sticky prices and wages do not fully adjust to absorb the existing labour market slack. Wages may not fully adjust, in practice, because employers are unwilling or unable to lower wages below a certain threshold (for example, there may be a wage floor imposed by a national minimum wage or sectoral bargaining) or because workers are not willing to work for wages below their reservation wage, which, in turn, can be affected by the generosity of unemployment benefits and the threat of benefit sanctions.

### *Unit labour costs have started to adjust…*

The global financial crisis and the subsequent sovereign-debt crisis reflect, to an important extent, structural imbalances that had built up in the period preceding the crisis. Sizable external imbalances between certain advanced and emerging economies before the crisis are likely to have precipitated the global financial crisis by providing excess liquidity to the financial system in advanced economies. Moreover, widening imbalances within the euro area, related to diverging trends in competitiveness, have been a major culprit for the sovereign-debt crisis. Rebalancing external accounts is important for economic growth and stability and requires adjustments in relative cost-competitiveness. Competiveness in this context is typically proxied by unit labour costs, which measure the average costs of labour per unit of output and, hence, relate productivity developments to developments in the cost of labour per employee.[4] Figure 1.4 shows that unit labour costs have started to adjust in a way that is consistent with rebalancing. In the euro area periphery as well as Australia, Canada, New Zealand and the United States, unit labour costs have tended to decline over

Figure 1.4. **Unit labour costs have started to adjust**

Percentage-points change in unit labour costs since the start of the global financial crisis relative to the pre-crisis trend[a]




*Note:* Countries shown by ascending order of the current change in unit labour cost.

*a)* Pre-crisis trend is based on the average growth rate over the period 2004-07.

*b)* Aggregate of 15 OECD countries of the euro area.

*Source:* OECD calculations based on the *OECD Economic Outlook Database* (*http://dx.doi.org/10.1787/eo-data-en*).

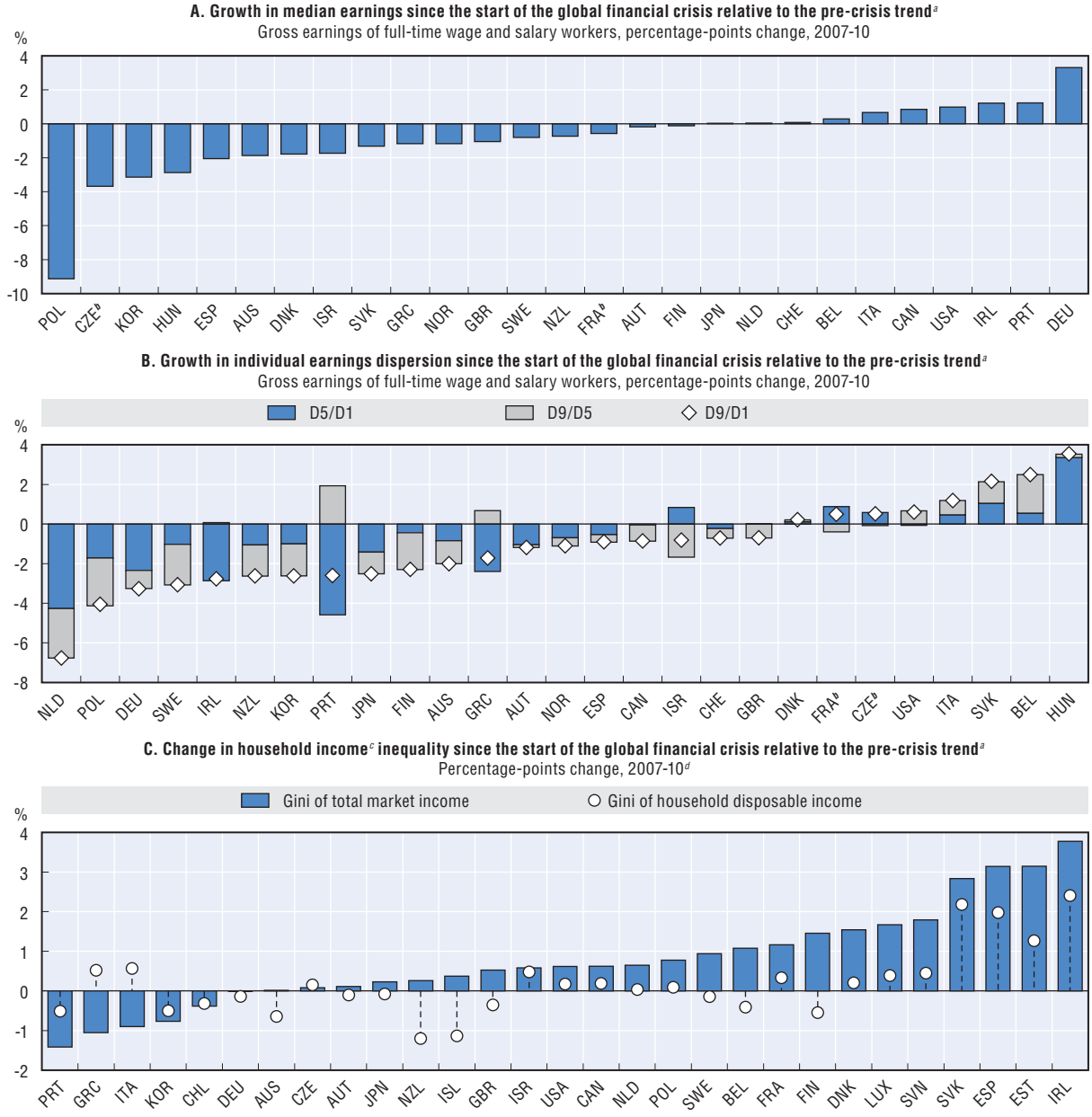
StatLink http://dx.doi.org/10.1787/888932852409

the period 2007 to 2012 relative to their pre-crisis trends, while unit labour costs have tended to increase relative to their pre-crisis trends in countries in the euro area core such as Austria, Finland, Germany and the Netherlands. OECD projections of unit labour costs up to 2014 suggest that the process of rebalancing is expected to continue in the near future, with unit labour costs expected to decline further in countries where they have already started to decline, while they are expected to remain stable or even increase in countries where unit labour costs have tended to increase the most.[5]

### *... and real earnings growth has slowed...*

While the process of adjusting labour costs relative to productivity may be necessary to restore competitiveness and reducing external imbalances, there are potentially important implications for the living standards of workers, particularly in countries where this takes the form of declining real wages. In order to get some idea of the role of wage adjustment for workers, Panel A of Figure 1.5 shows median real wage growth since the start of the global financial crisis to 2010 relative to the change that would have prevailed had the historical trend continued into the crisis period.[6] The figure shows that in the large majority of countries wage growth has tended to slow between 2007 and 2010. These developments are likely to reflect a variety of factors including the reduced bargaining power of workers in the context of high labour market slack, the role of negotiated wage restraints between the social partners in collective bargaining agreements or jobs pacts to prevent job losses (e.g. Austria, Germany and Sweden) and wage cuts/freezes in the public sector (e.g. Greece, Ireland and Portugal). There are important differences in the extent of the slowdown in wage growth across countries. Interestingly, the extent of the slowdown does not appear to be related to the economic impact of the crisis. The largest reductions in median wage growth are observed in Korea and Poland, both countries where the economic impact of the global financial crisis has been relatively limited. Median wage growth even accelerated in Ireland, Portugal and the United States, all characterised by

## Figure 1.5. **The growth of inequality in earnings and income**




*Note:* Countries shown by ascending order of the median (D5) in Panel A, the ratio D9/D1 in Panel B and market income inequality in Panel C.

*a)* Pre-crisis trend is based on the annual average growth rate over the period 2004-07.

*b)* 2007-09 for the Czech Republic and France.

*c)* Household disposable income is the sum of the total market income received by the households (which is based on gross earnings, self-employment and capital income) plus transfers less taxes, adjusted for household size by dividing incomes by the square root of household size.

*d)* 2004 refers to 2003 for Japan and New Zealand; 2005 for Canada, Denmark, France, Hungary, Israel, the Netherlands, the United Kingdom and the United States; and 2006 for Austria, Belgium, Chile, the Czech Republic, Estonia, Finland, Greece, Iceland, Ireland, Italy, Korea, Luxembourg, Poland, Portugal, Spain, the Slovak Republic and Slovenia. 2007 refers to 2006 for Chile and Japan; 2008 for Australia, Finland, France, Germany, Israel, Italy, New Zealand, Norway, Sweden and the United States. 2010 refers to 2009 for Japan; 2011 for Chile. 2010 data based on EU-SILC are provisional for Austria, Belgium, the Czech Republic, Estonia, Finland, Greece, Iceland, Ireland, Italy, Luxembourg, Poland, Portugal, Spain, the Slovak Republic and Slovenia.

*Source:* OECD calculations based on the *OECD Earnings Database* (*http://dx.doi.org/10.1787/lfs-ear-data-en*) and the *OECD Income Distribution Database* (via *www.oecd.org/social/income-distribution-database.htm*).

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large increases in labour market slack. Thus, aggregate wage developments are likely to reflect in part changes in the composition of the workforce and shifts in sectoral employment. This may also explain why there is no obvious pattern across countries relative to the pre-crisis trend.

In the large majority of OECD countries, individual earnings inequality has tended to grow less quickly during the period 2007 and 2010 than in the years immediately before the crisis (Figure 1.5, Panel B). In four-fifths of countries for which data are available, the trend increase in the earnings gap between the ninth and the first decile of the earnings distribution has slowed since the start of the global financial crisis. This pattern seems to be more or less evenly shared across the earnings distribution, with changes in inequality in the top and bottom halves of the distribution generally going in the same direction. This suggests that earnings slowed more quickly at the top of the distribution and less quickly at the bottom of the distribution. This may reflect the role of composition effects since job losses tended to be concentrated among the low-paid.[7]

### *... while income inequality has tended to grow more quickly*

In contrast to the pattern observed for individual earnings inequality, household market income inequality, measured in terms of the Gini, has tended to increase more rapidly during the period 2007 and 2010 than during the years preceding the crisis in the majority of OECD countries (Figure 1.5, Panel C).[8] Since household market income includes all working-age households and not just those with working members, this measure is not subject to the kind of composition affects that complicate the interpretation of changes in the distribution of individual earnings as documented in Panel B. The increase in income inequality was particularly pronounced in Estonia, Ireland, the Slovak Republic and Spain, whereas in Greece, Italy and Portugal it has declined. However, when measured in terms of disposable income, i.e. market income plus transfers less taxes, there was generally little change in household income inequality, except for notable increases in Ireland, the Slovak Republic and Spain. Thus, the tax and benefit system in most countries have been quite effective in limiting the impact of the rise in market income inequality on inequality in terms of disposable household income (OECD, 2013c).

## 2. The evolution of labour market outcomes across population groups since the start of the global financial crisis

Previous editions of the *OECD Employment Outlook* have shown that youth, men and the low-skilled have been hardest hit by the recent global financial crisis, while the impact on older workers and women has been relatively limited (OECD, 2010a and 2011a). However, there has been little systematic analysis as to whether the patterns observed in the aftermath of the global financial crisis have been different from those following previous recessions and how any such differences could be explained. Hence, this section seeks to provide: i) an update on the labour market situation of different socio-economic groups; ii) a systematic comparison of the evolution of labour market outcomes of different socio-economic groups in the aftermath of the global financial crisis with the patterns observed following previous recessions; and iii) possible explanations behind the main deviations from historical trends. Special emphasis is given to the analysis of the situation of older workers since their trajectory in the aftermath of the global financial crisis stands apart most from other groups as well as the pattern observed following previous deep economic downturns.

### *Employment rates for youth and the medium-skilled have only stabilised, but have improved for other groups*

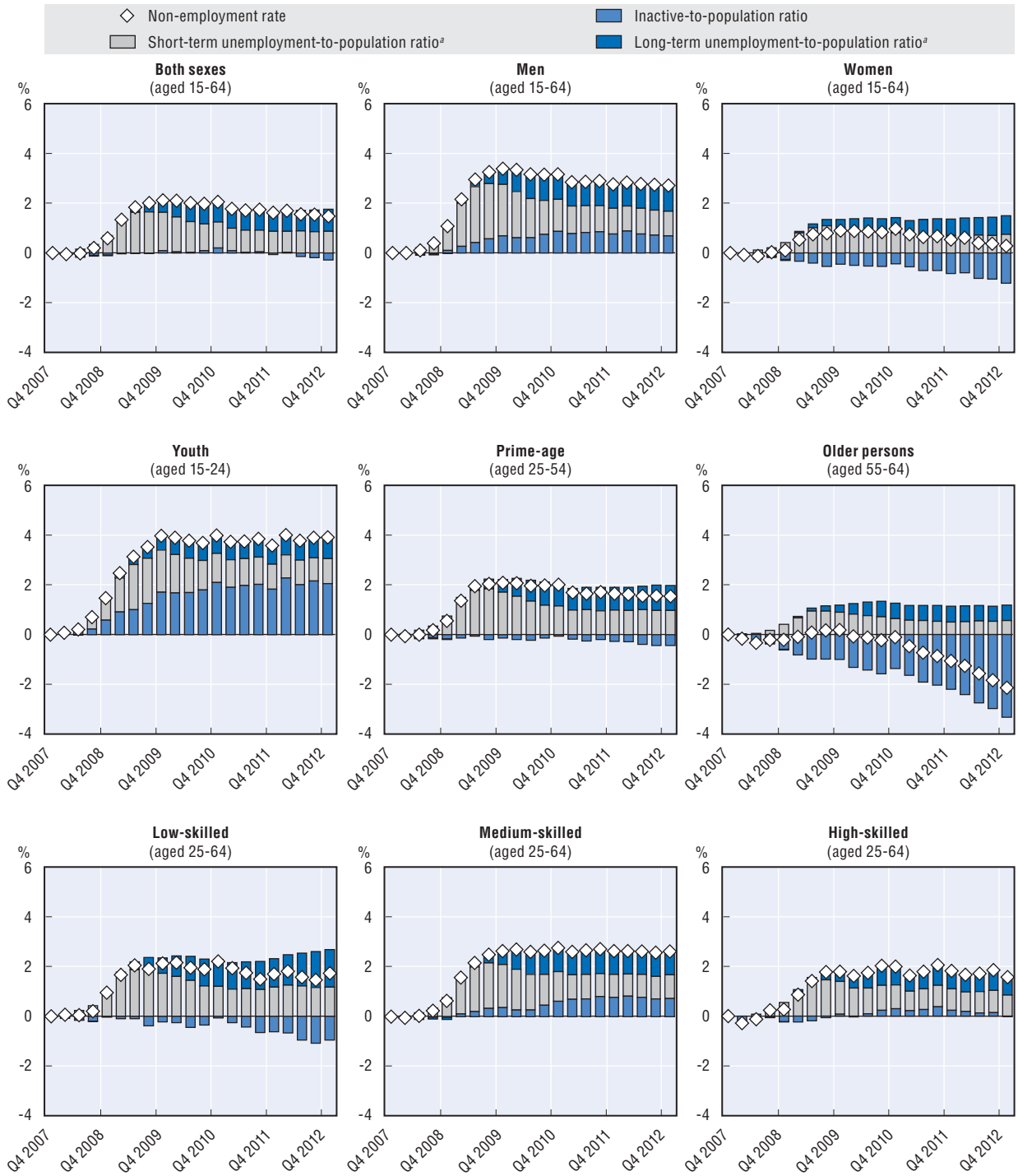
Figure 1.6 documents the evolution of the OECD non-employment rate for selected socio-economic groups from Q1 2007 to Q4 2012. During the initial period of the global financial crisis up to the peak in the overall non-employment rate (Q1 2010), the largest increases in non-employment rates occurred for youth, men and the medium-skilled, whose non-employment rates increase by 3.9, 3.3 and 2.7 percentage points respectively. By contrast, the non-employment rate of older people (aged 55-64) was more than half a percentage point lower than at the start of the global financial crisis, while the non-employment rate for women was only half a percentage point higher. Since reaching the peak, non-employment rates have stabilised for youth, medium and high-skilled workers, while they have started to recover for the other groups. The decline in the non-employment rate for older people of over 2 percentage points since the start of the crisis is particularly noteworthy.[9]

To gain more insight into the differential evolution of non-employment rates across socio-economic groups, Figure 1.6 also decomposes changes in the non-employment rate into the corresponding changes in labour force participation and short-term (less than a year) and long-term (a year or more) unemployment (expressed as shares of the working-age population). While changes in unemployment account for the bulk of changes in the overall non-employment rate, changes in labour force participation are a key factor for explaining differences in the evolution of non-employment across socio-economic groups, and particularly between youth, women and older workers. This holds true for the initial period of the crisis up to Q1 2010 as well as for the modest labour market recovery since then. For example, the better performance of the non-employment rate of older people and women relative to other groups reflects to an important extent the differences in the evolution of labour force participation across groups. While labour force participation declined significantly for youth, men and medium-skilled workers, it has increased significantly for older people and women.[10] More recently, there also has been a noticeable uptick in labour force participation among the low-skilled. However, differences in the evolution of unemployment are important as well. Indeed, when considering the impact of the crisis in terms of unemployment rates, largely the same qualitative pattern emerges as in terms of non-employment rates. The main exception is with respect to skills. In terms of unemployment rates, the low-skilled have been affected considerably more than those with more skills and, unlike in the case of non-employment rates, there is no sign that the situation has started to improve.

Figure 1.A2.2 in the online annex to this chapter (OECD, 2013a) conducts a similar exercise by decomposing the total change in non-employment rates between Q4 2007 and Q4 2012 into unemployment changes and changes in labour force participation for each OECD country for which suitable data are available. In order to facilitate the interpretation, changes for each group are normalised by subtracting the population-wide change in each country. This shows, consistent with Figure 1.6, that deviations in labour market outcomes for specific groups from the country average are in large measure related to differential changes in labour force participation rates. In all countries – except Luxembourg and Korea, two countries where the impact of the global financial crisis has been negligible – the increase in the non-employment rate of women has been smaller than that of men. This is almost entirely driven by the secular increase in labour force participation rates among women. Ireland and Portugal stand out as exceptions in that the bulk of the relative change in non-employment rates between men and women reflects

Figure 1.6. **Decomposition of the change in labour market slack by groups**

Percentage-points change in the number of persons in a given labour market status[a] as a share of population of the indicated group in OECD countries,[b] Q4 2007-Q4 2012




*a)* Short-term and long-term unemployment refer to unemployment durations of less than 12 months and one year or more, respectively.

*b)* OECD is the weighted averages of 33 OECD countries (excluding Chile) for data by gender and age, and 29 countries (excluding Australia, Chile, Japan, Korea and New Zealand) for data by education.

*Source:* OECD calculations based on the *OECD Short-term Labour Market Statistics Database* (*http://dx.doi.org/10.1787/lfs-lms-data-en*) and national labour force surveys.

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lower unemployment increases among women. The above-average increase in non-employment rates among youth and the below-average increase among older people also reflect to a large extent differences in labour force participation rates. Greece and Spain represent two notable exceptions in the case of older persons. In those countries, the relatively strong employment performance of older people reflects smaller increases in unemployment rather than larger increases in labour force participation. Across skill groups, the relationship between relative changes in employment and participation is somewhat less tight, but still fairly strong.

Box 1.3 analyses the evolution of labour market outcomes across more detailed population groups since the start of the global financial crisis to Q4 2012. It shows that there are large differences in the employment impact of the crisis across detailed population groups. Young low-skilled men suffered the largest reduction in their employment rates (almost 8 percentage points), while those of medium-skilled older women increased by 1.7 percentage points. It also shows that, on average across the OECD, the increase in youth non-employment is almost entirely driven by increased enrolments rates in education and training, while the rate of youth not in employment, education and training has been broadly constant.

### Box 1.3. **The evolution of non-employment rates across detailed socio-economic groups since the start of the crisis**

This box analyses the evolution of non-employment rates since the start of the global financial crisis in more detail. First, it decomposes the evolution of non-employment rates across detailed mutually exclusive population groups. This is of interest *per se*, but may also help interpreting the patterns presented in the main text since these are not defined in a mutually exclusive way. For example, women may be predominantly high-skilled or older workers may be predominantly men. As a result, it is not clear whether the changes observed for a particular population group reflect pure group effects or changes in its composition. Second, it analyses the situation for youth in more detail by decomposing the change in the OECD youth non-employment rate since the start of the global financial crisis into changes in labour market and education status.

In the figure below, the change in non-employment rates between Q4 2007 and Q4 2012 across 28 OECD countries is decomposed for 18 mutually exclusive groups (three age groups by two gender groups by three education groups):

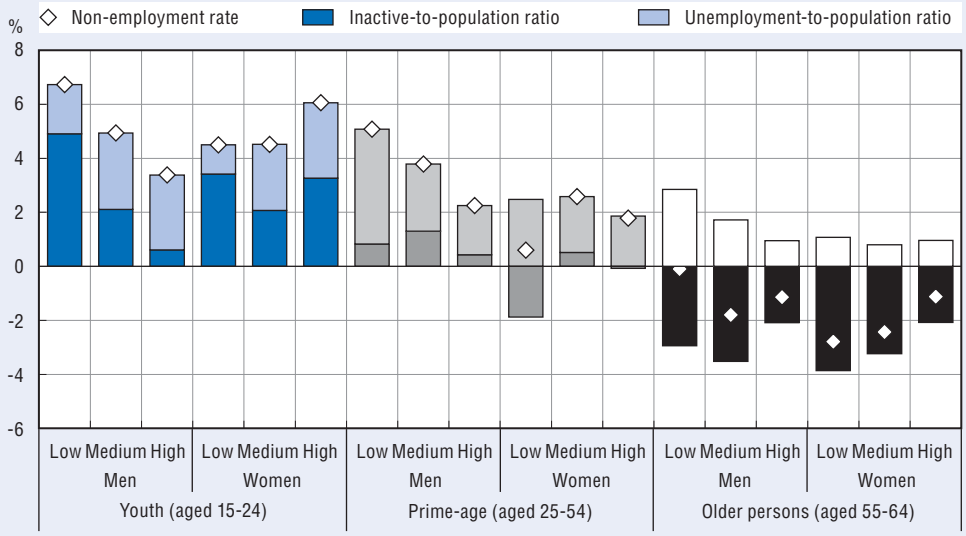
- The average decline in *youth* employment since the start of the crisis hides considerable heterogeneity across education and gender groups. For young men, the adverse employment impact of the global financial crisis is considerably larger the lower the level of education, with employment rates among low-skilled men being 7 percentage points lower at the end of 2012 than at the start of the crisis. Slightly more than half of the increase in non-employment rates among youth reflects declining labour force participation. This is even more apparent for low-skilled men, whereas it is least important for skilled men. A similar pattern can be observed for young women although differences across skills groups tend be less pronounced. To a large extent, the decline in youth labour force participation reflects higher enrolment in education and training, as discussed at the end of this box.

## Box 1.3. **The evolution of non-employment rates across detailed socio-economic groups since the start of the crisis** *(cont.)*

- The average decline in *prime-age* employment is heavily concentrated among low-skilled men for whom the non-employment rate increased by over 5 percentage points since the start of the global financial crisis. Higher levels of education appear to play an important role in protecting prime-age males against employment losses, with the increase in non-employment rates among the high-skilled being less than half that of the low-skilled. Among prime-age women, non-employment rates increased most strongly among the medium-skilled, while the unemployment rate increased most strongly among the low-skilled. This pattern largely reflects the relatively strong increase in labour force participation among low-skilled women since the start of the crisis. In contrast to youth and older persons, employment changes among prime-aged persons tend to take the form of changes in unemployment rather than changes in labour force participation. This reflects the importance of prime-age workers as bread winners in households.

### Decomposition of labour market slack in unemployment and inactivity by detailed socio-demographic groups

Percentage-points change in the number of persons in a given labour market status as a share of population of the indicated group, OECD average,[a] Q4 2007-Q4 2012




*a)* OECD is the weighted average of 28 countries: Austria, Belgium, Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Mexico, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

*Source:* OECD calculations based on national labour force surveys.

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- The average increase in employment among *older workers* reflects rising labour force participation rates. Differences across education and gender groups tend to be relatively modest compared with youth and prime-age persons. The extent to which increased labour force participation is related to retirement, disability or other reasons for inactivity is discussed towards the end of Section 2. While older workers are more likely to be employed in Q4 2012 than at the start of the crisis, they are also more likely to be unemployed. This is particularly true for low-skilled men for whom the unemployment rate increased by almost 3 percentage points since the start of the global financial crisis.

### Box 1.3. **The evolution of non-employment rates across detailed socio-economic groups since the start of the crisis** *(cont.)*

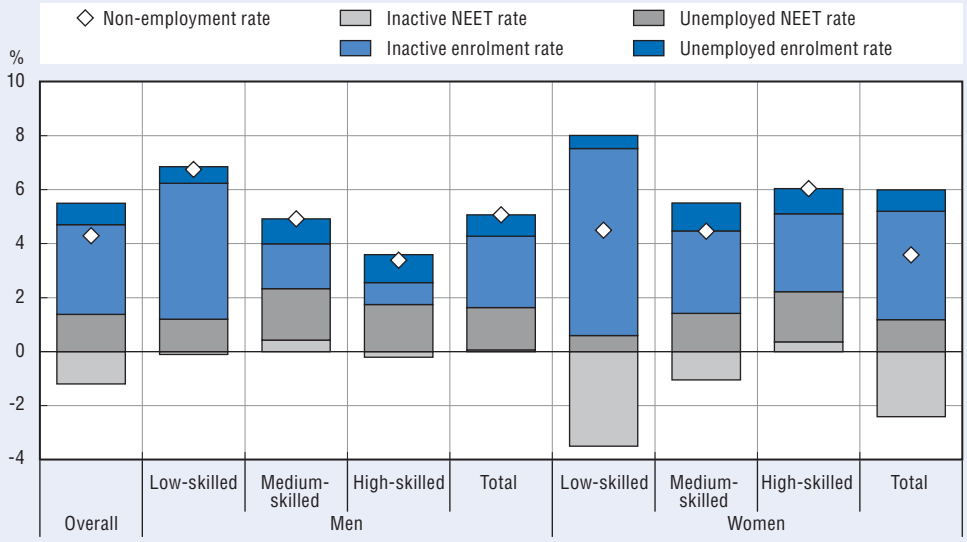
Given major policy concerns about the large declines in youth employment rates, it is worth exploring this in some more detail. The analysis above and in the main text already suggests that the decline in youth employment rates is largely driven by declining labour force participation and only to a lesser extent by increasing unemployment. An important policy question is to what extent the decline in labour force participation reflects increased enrolment in education and training or instead an increase in the proportion of inactive youth that are neither in employment, education or training (so-called inactive "NEETs"). While increasing enrolment rates in education and training may help to strengthen the labour market position of youth and may not be much of a policy concern, large increases in inactive NEETs may leave deep scars with long-lasting consequences for future careers. In the figure below, changes in the youth non-employment rates since the start of the global financial crisis are decomposed into changes in labour market and education status by gender and skill groups:

- More than 75% of the 4 percentage-points increase in the youth non-employment rate across the OECD since the start of the crisis to end of 2012 is accounted for by an increase in the enrolment rate of inactive youth in education and training. The increase in the enrolment rate of unemployed youth in education and training accounted for most of the remainder. Thus, increased school enrolment accounts for effectively the entire increase in youth non-employment. The rate of youth not in employment, education or training (NEET) for the OECD has been broadly stable, with the increase in the NEET rate of unemployed youth approximately offsetting the decline in the NEET rate among inactive youth.
- The increase in youth enrolment in education and training across the OECD since the start of the global financial crisis up to the end of 2012 was particularly marked for women and low-skilled persons. For example, the school enrolment rate for low-skilled women increased by about 7.5 percentage points since the start of the crisis compared with an increase in the rate of non-employment of 4.5 percentage points. The rise in the school enrolment rate for young skilled men relative to the increase in non-employment is much less pronounced, but still accounts for well over half of the increase in non-employment. The rise in the NEET rate has been most important for relatively skilled workers. These average patterns across the OECD are largely reassuring. Low-skilled workers are most likely to benefit from additional years spent in education and training, while higher skilled workers are less likely to become marginalised during periods of joblessness early on in their careers than their less skilled counterparts.
- The average pattern for the OECD described above is representative of the situation in the majority of OECD countries, but there are a number of notable exceptions where the rise in youth non-employment has largely taken the form of an increase in the NEET rate. In Greece, the youth non-employment rate increased by almost 12 percentage points and this was entirely driven by an increase in the NEET rate of which one third is accounted for by inactive youth and two-thirds by unemployed youth. In Estonia, France and Italy, similar patterns are observed. While in other countries rises in enrolment in education and training account for the bulk of the rise in youth non-employment, there are nevertheless a number of countries where NEET rates have increased substantially since the start of the global financial crisis to end of 2012. These include Iceland (3 percentage points), Ireland (5 percentage points), New Zealand (4 percentage points), Slovenia (3 percentage points) and Spain (8 percentage points). In all these countries, the increase in NEET rates largely reflects increased unemployment rather than increased inactivity.

Box 1.3. **The evolution of non-employment rates across detailed socio-economic groups since the start of the crisis** *(cont.)*

**Decomposition of labour market slack of youth in labour market and education status by gender and education**

Percentage-points change in the number of youth (aged 15-24) in a given labour market status as a share of the youth population, OECD average,[a] Q4 2007-Q4 2012




*a)* OECD is the weighted average of 28 countries: Austria, Belgium, Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Mexico, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

StatLink *http://dx.doi.org/10.1787/888932852618*

*Source:* OECD calculations based on national labour force surveys. See Figure 1.A2.3 of the online annex (*www.oecd.org/employment/outlook*) for country-specific details on the decomposition of the youth non-employment rate and OECD-wide information on its evolution over time.

### *Differences across population groups reflect a combination of cyclical and structural factors*

Differences in labour market performance across population groups in the wake of the global financial crisis are likely to reflect both cyclical and structural factors. First, the sensitivity of each group's *employment* outcomes may vary as a result of differences in turnover costs, i.e. the cost of hiring and firing (OECD, 2009a). Since youth have typically lower job tenure than other groups of workers and are more likely to be employed on a temporary contract, it may be less costly – in terms of firm-specific human capital or employment protection – for employers to layoff youth when product demand is temporarily depressed. Similarly, employers may have stronger incentives to hoard permanent workers with high tenure and thus potentially higher levels of firm-specific human capital and severance pay in case of dismissal. Second, there may be differences in how *labour force participation* adjusts depending on the relative importance of income and substitution effects. Income effects could induce workers to supply more labour, particularly in the case of older workers, women and the low-skilled. In the case of older workers, large losses in retirement savings may be particularly important (Coile and Levine, 2013; Gustman et al., 2011), while for women and the low-skilled reductions in household income may be the main driving force. Substitution effects may

induce workers to withdraw from the labour market in the context of limited returns to job search (in terms of the probability of finding a job and the expected wage that comes with it). The latter may be particularly important for youth and older workers.[11]

Apart from these cyclical effects, structural developments related to globalisation and technological change can also give rise to different underlying trends across socio-economic groups that persist during an economic downturn. For example, the demand for low-skilled labour may have been declining already before the start of the global financial crisis (OECD, 2011b) and, thus, account for some of the observed decline in employment during the crisis. Cohort effects may also have an impact on labour market outcomes as in each period new groups enter the labour market, while others leave. To the extent that younger cohorts that enter have different characteristics from older cohorts that leave, this could result in important changes in the composition of population groups. For example, successive cohorts of older workers and women may be more skilled and, therefore, more likely to participate in the labour force. Consequently, cohort effects may account for a sizeable part of the increase in labour force participation for those groups since the start of the crisis.

### *Compared with historical experience, the good performance of older workers is particularly notable*

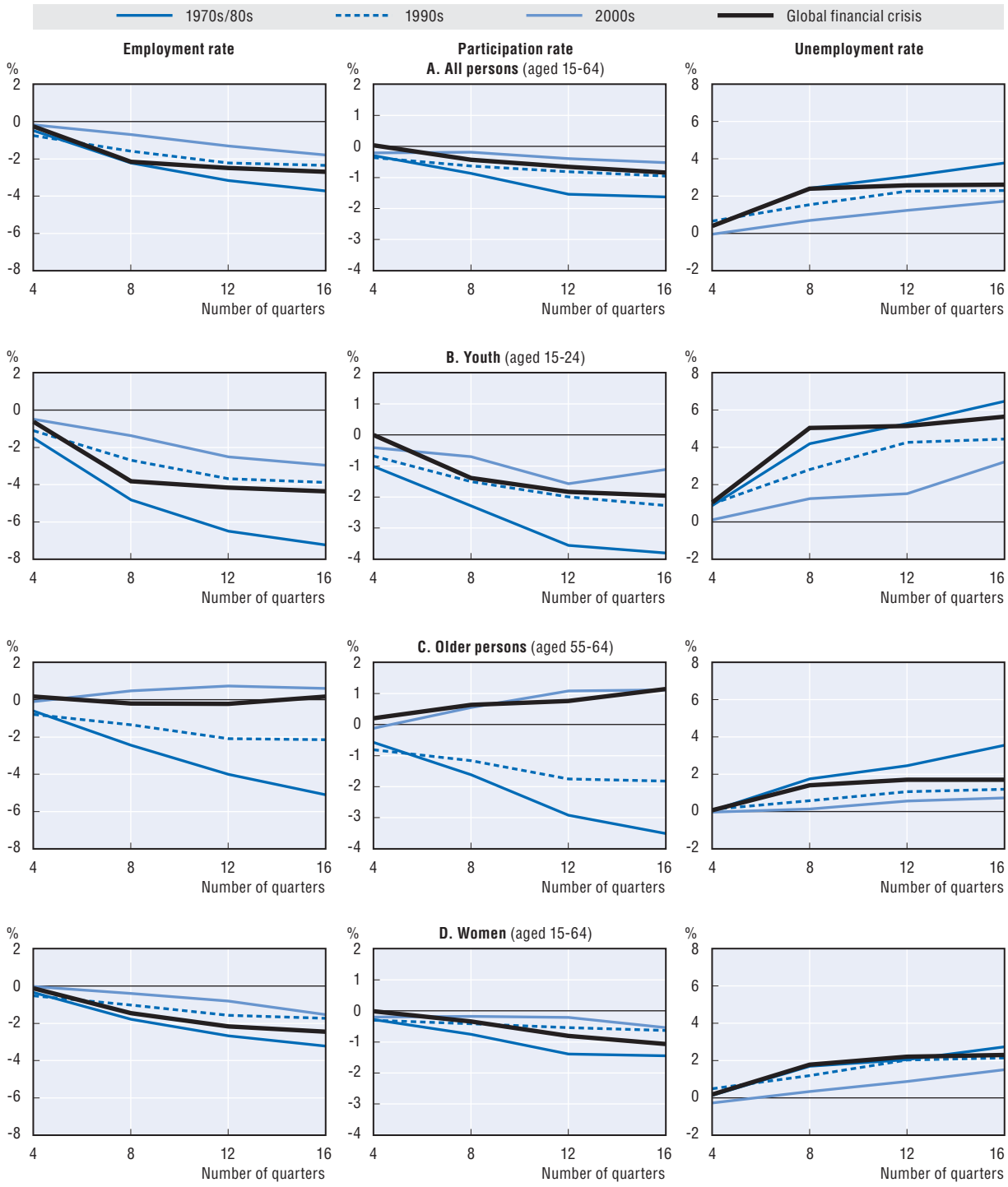
To what extent does the pattern observed in the aftermath of the global financial crisis correspond to the typical pattern following severe economic downturns or, indeed, deviate from historical experience? In this subsection, this question is addressed using an unbalanced panel of quarterly data for 19 OECD countries for the period Q2 1973 to Q4 2012. The analysis covers 49 major economic downturns across countries, of which 19 are related to the global financial crisis and 28 to previous recessionary periods. Major economic downturns are defined as declines in GDP from peak to trough of at least 3%.[12] Due to data limitations, the analysis considers only age and gender groups, but not skill groups.[13] The analysis is carried out both descriptively and using econometric methods. The main purpose of the econometric analysis is to compare the recent experience following the global financial crisis with historical patterns while controlling, to the extent possible, for pre-crisis trends, cohort effects and the extent of the downturn.

Figure 1.7 shows the evolution of labour market outcomes for youth, older workers and women in the first sixteen quarters following a major economic downturn. To provide a benchmark, it also represents the corresponding evolution for the working-age population as a whole. Apart from the global financial crisis, it separately considers economic downturns that took place during the 1970s/1980s, the early 1990s and the early 2000s:[14]

- The *youth* employment rate declined by about 4 percentage points in the sixteen quarters since the onset of the global financial crisis consistent with Figure 1.6. This is somewhat larger than the average decline following a typical economic downturn in the early 1990s and early 2000s, but considerably smaller than the average decline following major economic downturns in the 1970s or 1980s. A similar picture emerges for the participation rate. The average rise in the youth unemployment rate as a result of the global financial crisis has been as large as the largest average increase in any previous period, namely, that of the 1970s and 1980s.

Figure 1.7. **The evolution of labour market outcomes following major economic downturns by population group and period**

Average percentage-points change since start of major economic downturns[a, b]




*a)* Downturns are defined by the peak in GDP; major economic downturns relate to peak-to-trough changes in GDP of at least 3%.

*b)* The sample includes the following OECD countries: Australia, Austria, Belgium, Canada, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, the United Kingdom and the United States.

*Source:* OECD estimates based on national labour force surveys and the *OECD Economic Outlook Database* (*http://dx.doi.org/10.1787/eo-data-en*).

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- The small rise or stability in employment and labour force participation rates of *older persons (aged 55-64)* following the global financial crisis have been similar to what was observed following the recessions of the early 2000s, but contrast strongly with the declines that were recorded following recessions in the 1970s/1980s and early 1990s. However, the adverse impact of the global financial crisis on the unemployment rate of older workers appears to have been relatively pronounced in historical comparison.
- While *women* were affected less than men as a result of the global financial crisis, they have been affected relatively strongly from a historical perspective. The decline in employment rates was larger than that following recessions in the early 1990s and early 2000s, but smaller than that following recessions in the 1970s and 1980s.

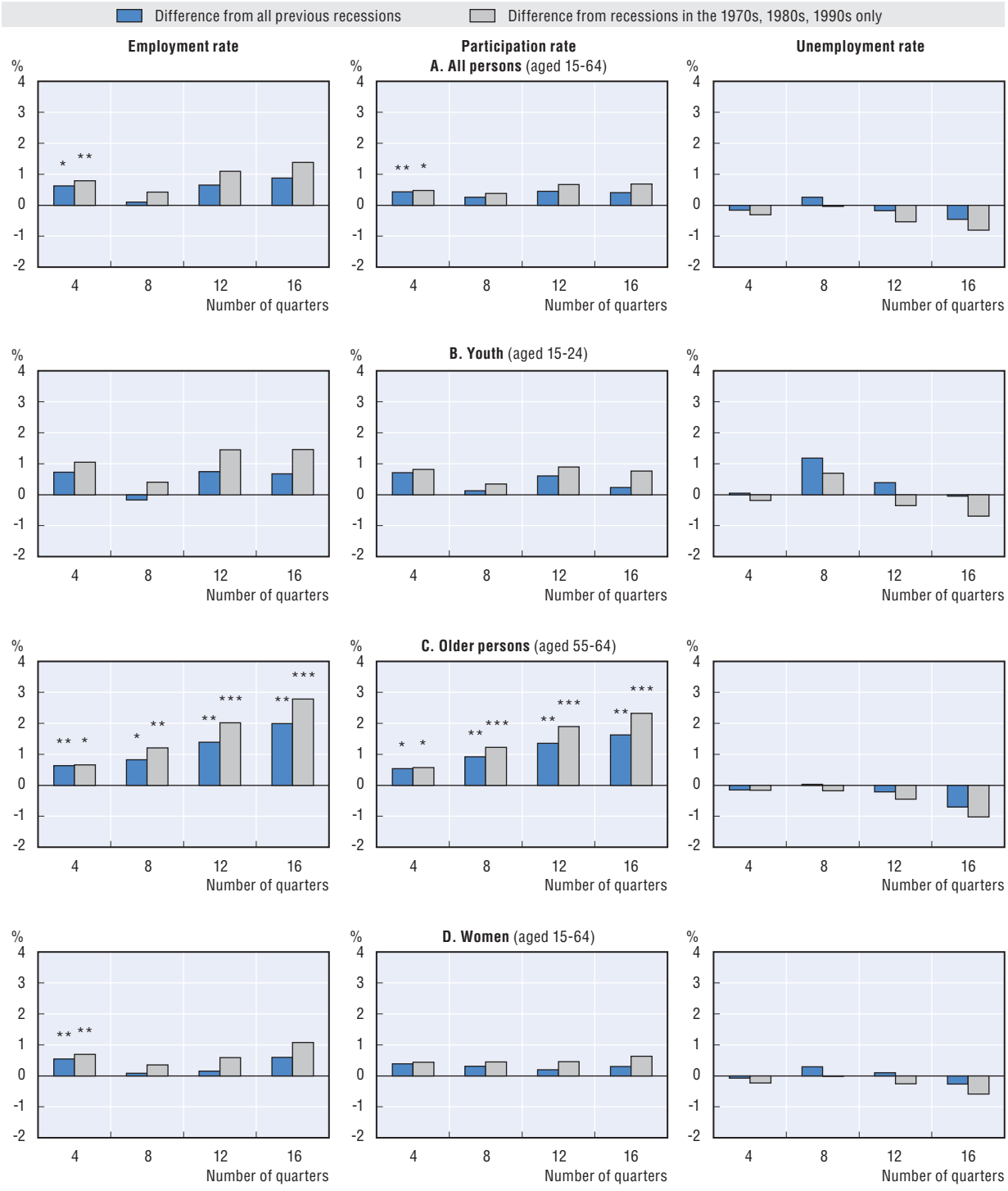
While the descriptive statistics presented above provide a useful first insight into the evolution of labour market outcomes for different demographic groups following major economic downturns, they do not control for the role of pre-crisis trends, cohort effects or the severity of economic downturns. In an attempt to address these concerns, a series of impulse-response functions are estimated that are specifically designed to assess the role of exogenous economic shocks on labour market outcomes. In practice, this involves regressing the change in the labour market outcome of interest since the start of a major economic downturn on a dummy that equals one at the start of a major economic downturn and a set of variables to control for persistence in the dependent variable. The baseline model is extended to include linear country-specific trends to account, at least to some extent, for the role of structural trends and cohort effects. To control for the size of the labour market shock, the model is also estimated relative to a benchmark group (prime-age men). The discussion below focuses on the baseline results which are summarised in Figure 1.8. This is followed by a brief discussion of the results when controlling for the size of the labour market shock and structural trends. See Box 1.4 for further details on the methodology and Table 1.A2.2 of the online annex to this chapter for further details on the regressions results (OECD, 2013a).

Figure 1.8 shows that, in general, the evolution of labour market outcomes following the global financial crisis has not been significantly different from the typical pattern observed in the aftermath of major economic downturns in the past. This is the case for the population as a whole, as well as for most population groups, including youth and women. However, older workers as a group represent a major exception. Consistent with the descriptive statistics discussed above, their employment and participation rates have evolved more positively than in the past. Differences with the historical pattern are statistically significant and economically large (over two percentage points after sixteen quarters). It is worth noting that a similar pattern was already present following major economic downturns in the early 2000s. As a result, excluding major recessions in the early 2000s from the historical benchmark group further reinforces the relatively strong employment and labour force performance of older workers following the global financial crisis. The unemployment impact of the global financial crisis on older workers may have been somewhat stronger than was typically the case during previous recessions but the difference is not statistically significant.

In order to assess the robustness of the results discussed above, several alternative specifications were estimated. First, the regressions attempt to account for the *size* of the labour market shock by focusing on differences in labour market outcomes relative to a benchmark group. The results are qualitatively similar to those discussed above. If anything, this further increases the difference in the evolution of employment and labour force participation rates of older people following the global financial crisis relative to

Figure 1.8. **Comparing the evolution of labour market outcomes following the global financial crisis with that during previous major economic downturns by population group**

Percentage-points change since the start of global financial crisis relative to previous major economic downturns




***, **, * statistically significant at 1%, 5% and 10% levels, respectively.

*Source:* OECD estimates based on national labour force surveys and the *OECD Economic Outlook Database* (*http://dx.doi.org/10.1787/eo-data-en*).

StatLink http://dx.doi.org/10.1787/888932852485

### Box 1.4. **Assessing the dynamic response to the global financial crisis in historical perspective**

The dynamic impact of major economic downturns on labour market outcomes is analysed by estimating impulse-response functions (RIFs) following the method proposed by Jorda (2005). This involves estimating the impulse response function directly by running a separate regression for each time difference of interest relative to the shock rather than by backing it out from the estimated coefficients of an autoregressive distributed lag model (ARDL) as in, for example, Cerra and Saxena (2008). This method has been shown to yield more robust results and has been widely used in recent OECD work, including by Duval et al. (2011) and Bouis et al. (2012).

The empirical model used in the baseline regressions involves estimating the following empirical model for each quarter $s$ following the onset of the downturn:

$$y^{g}_{it+s} - y^{g}_{it} = \alpha + \sum_{r=0}^{R} \beta_r \Delta y^{g}_{it-r} + \gamma D^{all}_{it} + \delta D^{recent}_{it} + \mu_t + \varepsilon_{it} \quad (1)$$

where the dependent variable is the difference in the labour market outcome of interest of group $g$ in country $i$ over $s$ quarters between $t$ and $t + s$. The dependent variable is regressed on a constant, the first difference of $y$ and up to 12 lags to control for autocorrelation in the error term, a recession dummy that equals one at the start of each major economic recession in country $i$ at time $t$ and is zero otherwise, an interaction term of the recession dummy with a dummy that equals one for recent downturns and zero otherwise, and a full set of time dummies to account for macroeconomic developments that are shared across countries. Since the regressions are estimated in differences, any country-specific differences in levels that are constant over time are eliminated.

Equation (1) is estimated using OLS on an unbalanced panel across 19 OECD countries for the period Q2 1973 to Q4 2012. Robust White standard errors are calculated for statistical inference to account for heteroskedasticity. The main interest is in coefficients $\gamma$ and $\delta$, which respectively capture the average response to previous economic downturns and the difference in the average response following the global financial crisis relative to earlier downturns. The coefficient $\delta$ is both estimated relative to all previous economic downturns as well as relative to previous downturns before the early 2000s. Recessions in the early 2000s were atypical in terms of their size and sectoral impact. Moreover, the average response following those downturns often corresponds quite closely to that observed following the global financial crisis. Excluding recessions during the early 2000s may be considered a way to emphasize long-term trends in the average response to economic downturns.

In order to assess the robustness of the results, a number of alternative specifications were also considered. First, labour market outcomes are measured relative to a benchmark group in order to control for the size of the labour market shock. In order to control for scale effects effectively, the difference-in-difference analysis focuses on proportional changes rather than percentage-point changes. Second, in order to control for linear country-specific trends, country dummies were added to the baseline model.

previous major economic downturns. Second, explicitly controlling for linear country-specific trends yields similarly signed coefficients in the employment and participation regressions for older workers. However, the estimated changes following the global financial crisis are no longer significantly different from those observed following major downturns in the past. This suggests that secular developments in the employment and participation rates of older persons as well as cohort effects account for a substantial part of the strong labour market performance of older persons during the crisis.

### *What explains the strong labour market performance of older workers following the global financial crisis?*

This subsection discusses possible explanations behind the strong employment performance of older workers in the aftermath of the global financial crisis. In doing so, it builds on two important insights that come out of the analysis so far. First, the strong employment performance of older workers since the start of the global financial crisis is driven by rising labour force participation rates. While labour force participation could, in principle, reflect both demand and supply-side factors, the emphasis will be on supply-side factors, consistent with much of the existing literature on older workers. Second, the strong employment performance of older workers following the global financial crisis is part of a longer-term trend. Employment and participation rates of older workers were growing steadily before the global financial crisis and these trends may have continued during the global financial crisis.

#### *Older workers have postponed retirement in some countries…*

Figure 1.9 documents the change in inactivity rates for older workers over time for a number of selected European countries and decomposes the change in inactivity rates into changes in the self-reported rates of retirement and disability and the rate of inactivity for other reasons.[15] It shows that inactivity rates for older workers have tended to decline and, hence, labour force participation to rise, during the financial crisis in most countries. By contrast, in the Czech Republic, Estonia and Greece, inactivity rates have tended to increase since the start of the global financial crisis. This appears to reflect an increase in the rate of retirement. In countries where inactivity rates for older workers declined during the global financial crisis, this generally reflected a continuation of the pre-crisis trend. The reasons for the rising trend in labour force participation differ greatly across countries. In countries such as Austria, Belgium, the Czech Republic, Estonia, Germany, Italy and the Slovak Republic, the rise in labour force participation among older workers reflects a reduction in the rate of retirement, suggesting that the effective retirement age has gradually increased over time. In other countries such as Ireland, the Netherlands Spain and Sweden, the trend rise in labour force participation is largely driven by a reduction in inactivity for other reasons. This may due to the growing importance of economically active women in the group of older workers. In Finland and Poland, the trend increase in labour force participation is largely driven by falling self-reported disability rates.[16] In Poland, this reflects the reform of the disability and old-age pension system in 2006 which removed the possibility of disability benefits for people aged between 60 and 65 years.

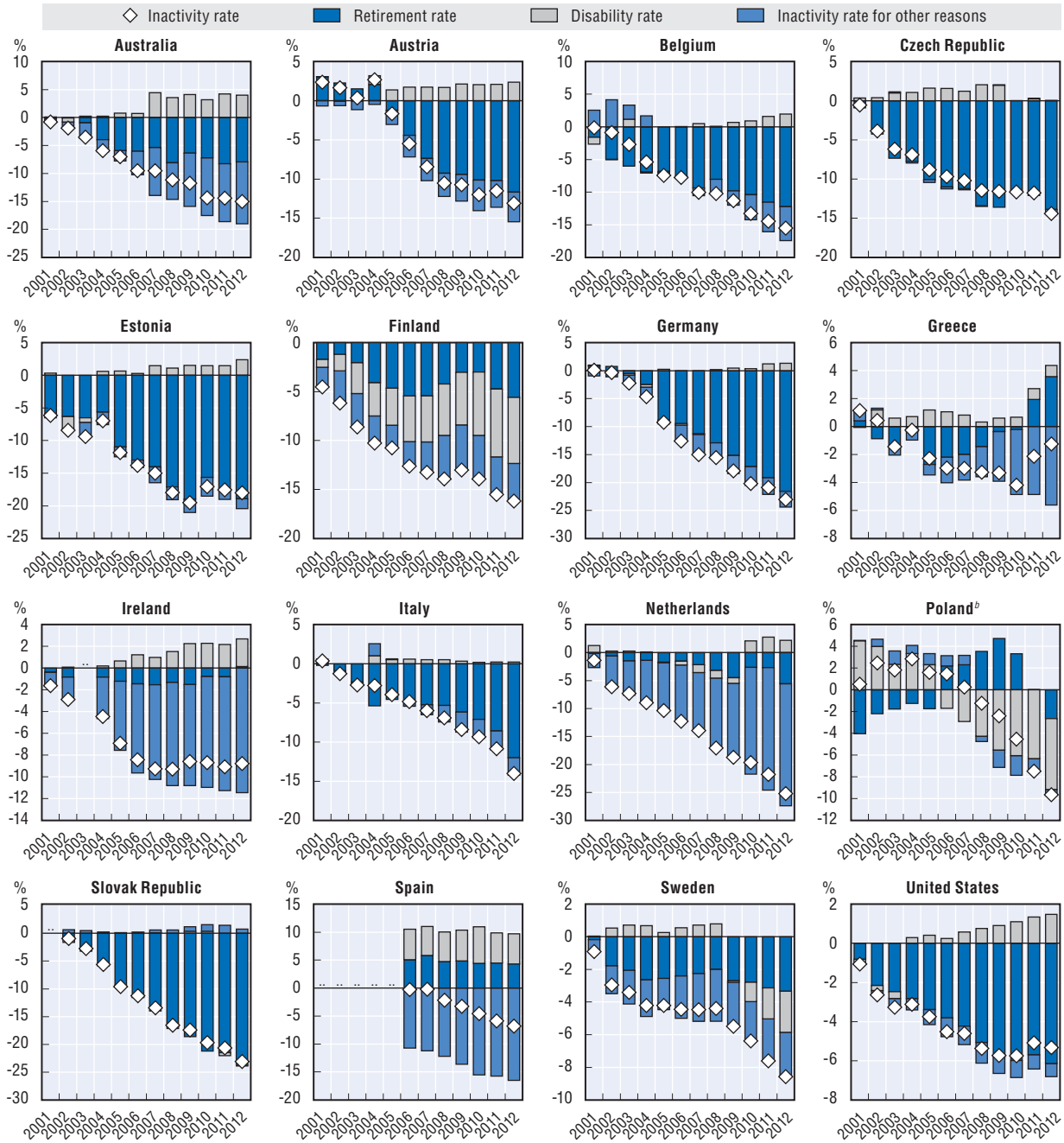
#### *… partly reflecting strengthened incentives to work at an older age…*

In countries where older workers have tended to postpone retirement, this may reflect changes in the composition of older workers related to the rise in female labour force participation and rising levels of education, but also the role of changes in administrative rules with respect to the retirement age, the generosity of pensions and the benefits from working longer.[17]

Old-age pensions and other social insurance programmes can give rise to important disincentives to work at an older age when the benefits for older workers of remaining longer in work fall short of the value of contributions and, as such, effectively impose an implicit tax on continued work. In order to analyse the role of old-age pensions, as well as the availability and generosity of disability and unemployment benefits for incentives to

Figure 1.9. **Decomposition of the change in inactivity rate of older workers in selected OECD countries**

Annual percentage-points change since 2000[a] in the number of persons aged 55-64 in a given labour market status as a share of persons aged 55-64




..: Not available.

*a)* 2001 for the Slovak Republic and 2005 for Spain.

*b)* Since the beginning of 2006 all disability pensions for persons who had reached the retirement age have been automatically converted into the old-age pensions.

*Source:* OECD calculations based on national labour force surveys. For figures for all countries for which appropriate data are available, see Figure 1.A2.4 of the online annex to this chapter (*www.oecd.org/employment/outlook*).

StatLink http://dx.doi.org/10.1787/888932852504

continue working or withdraw from the labour force, Duval (2004) and OECD (2013b) have computed implicit marginal tax rates on continued work at older ages that allows assessing their evolution over time.[18]

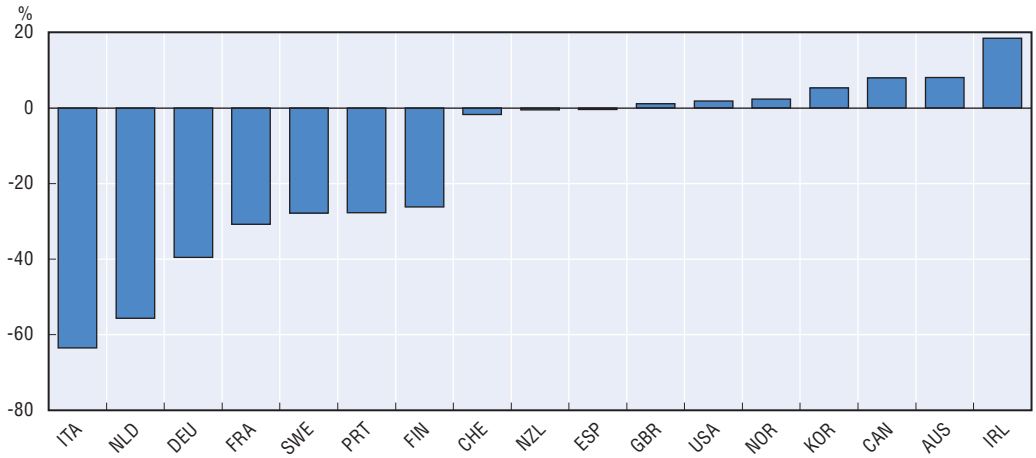
During the 1970s and 1980s, many governments in OECD countries started to actively encourage older workers to withdraw from the labour force by introducing early retirement schemes, including the elimination of job-search requirements for unemployment benefits for older workers. This was also reflected by an increase in implicit tax rates. Driven by concerns over high and persistent unemployment rates, the hope was that by actively encouraging older workers to retire early this would open up job opportunities for other groups, and particularly youth. Similarly, some OECD countries eased access to disability benefits following previous recessions, in effect allowing labour market difficulties to become one of the criteria for entry, rather than exclusive medical criteria (OECD, 2010b).[19] Both early retirement and easier access to disability may account to an important extent for the large reduction in labour force participation rates observed in the aftermath of major economic downturns in the 1970s and 1980s (see Figure 1.7). Indeed, econometric evidence by Duval et al. (2011) suggests that implicit taxes encourage withdrawals from the labour force in the aftermath of major economic downturns.[20] However, the expectation that this would free up jobs for youth was not borne out in practice in terms of either higher employment rates or lower unemployment rates for youth (OECD, 2006b).[21] Consequently, policies that have actively promoted the *permanent* withdrawal of older workers from the labour force have not delivered the desired results. Instead, they have yielded large and long-lasting adverse consequences for the public purse and potential economic growth.

Since the early 1990s, several European countries have reduced retirement incentives through pension reform, the phasing out of early retirement schemes and the tightening of eligibility criteria to other social transfer programmes that operated as *de facto* early retirement schemes. As a result, the trend towards increasing implicit tax rates has come to a halt and in some countries has been reversed. This is also shown in Figure 1.10 which documents the evolution of implicit tax rates between 1985 and 2009 in countries for which historical data are available. Strengthened initiatives to continued work at older ages have played a potentially important role in halting the gradual decline in labour force participation rates of older persons and the effective retirement age and their increase from the late 1990s (OECD, 2011b). It is not clear to what extent changes in the incentives for continued work among older persons related to the gradual reduction in early retirement options can explain the evolution of labour force participation of older workers in the aftermath of major economic downturns in the early and late 2000s. While this seems plausible in principle, one would also expect this to increase the unemployment impact of major economic downturns on older workers which does not seem to have been the case (see Figure 1.8). This suggests that reforms may have reduced older-worker transitions from employment to inactivity, but may have had little or no effect on older-worker transitions from employment to unemployment.[22] This may reflect the countervailing role of demand-side factors related to the increased incidence of temporary contracts among younger age-cohorts that have reduced the need to make employment adjustments among older workers.

An important question during the early phase of the global financial crisis was the extent to which governments would continue on the path of reform and resist pressures to re-open pathways into early retirement or other quasi-permanent forms of social income

Figure 1.10. **Implicit tax rate[a] on continued work at older ages**

Percentage-points change, 1985-2009[b]




*a)* Implicit tax rate in terms of average worker earnings on continued work for five more years in "early retirement route" averaged across workers aged 55 and 60. In addition to taking account of regular old-age pensions, the computation of implicit tax rates also takes account of unemployment-related benefits in countries where these can be used to bridge the time until people are entitled to an old-age pensions as well as other social transfer programmes can be used to withdraw from the labour market before the minimum pensionable age.

*b)* Or first available year.

*Source:* Duval, R. (2004), "Retirement Behaviour in OECD Countries: Impact of Old-Age Pension Schemes and other Social Transfer Programmes", *OECD Economic Studies*, Vol. 2003/2, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_studies-v2003-art8-en*; OECD (2013), *OECD Economic Outlook*, Vol. 2013, No. 1, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_outlook-v2013-1-en*.

StatLink *http://dx.doi.org/10.1787/888932852523*

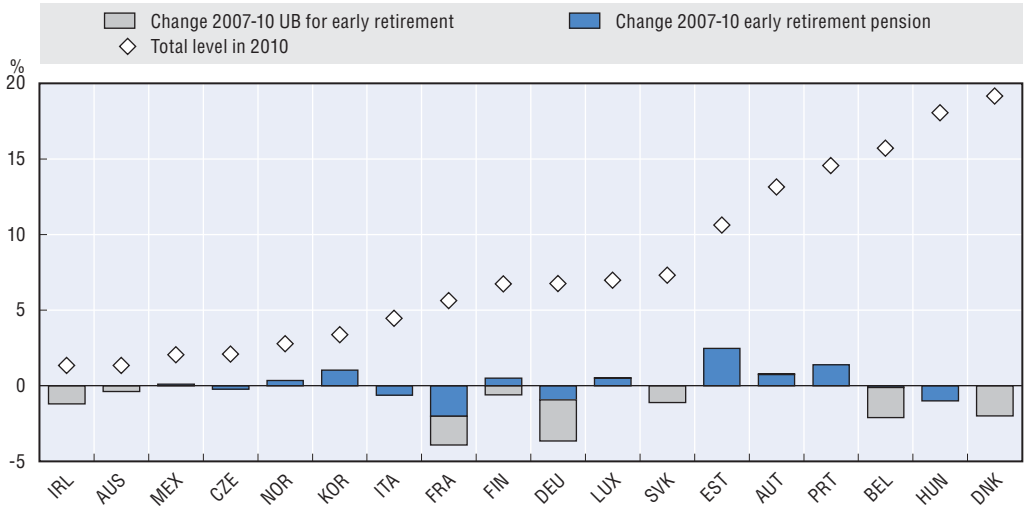
support. The evidence so far seems to suggest that, if anything, countries have continued on the path of reform and may even have strengthened reform efforts. Figure 1.11 provides an indication of the *use* of early retirement schemes in selected OECD countries in 2010, the most recent year for which data are available, and the change in benefit recipiency rates since the start of the global financial crisis. It shows that despite an overall tendency towards increased incentives for continued working at older ages, early retirement remains important in a number of countries. In 2010, over 15% of the old-age population is receiving benefits from early retirement schemes in Belgium, Denmark and Hungary. In Austria, Estonia and Portugal, early retirement schemes also remain important with recipiency rates over 10%. The evolution of the use of recipiency rates since the start of the crisis is somewhat mixed when taking account of both early retirement pensions and special unemployment benefit for older workers. However, when differentiating between the two types of early retirement schemes, one observes stable or declining recipiency rates in relation to the special unemployment benefit schemes for older workers, whereas the pattern with respect to early retirement pensions is mixed.[23] What is clear, though, is that, so far, there has not been a general tendency across countries to actively promote early retirement.[24] This may indicate that governments have learned from past mistakes, but also reflect the fact that the present situation is very different from that in the 1970s and 1980s, given the ongoing processes of population ageing and fiscal consolidation.

### *... but increasing levels of education and wealth effects also play a role*

In addition to strengthened incentives for continued working related to the provision of retirement and other social benefits, several other factors may play a role in explaining

Figure 1.11. **The use of early retirement schemes since the start of the global financial crisis**

Number of participants in early retirement[a] and special unemployment-benefit[b] schemes for older workers as a percentage of the population aged 55-64, percentage points, 2007[c] and 2010




*a)* Early retirement schemes refer to public programmes for older workers who are entitled to leave before the normal retirement age.

*b)* Unemployment-benefit schemes refer to special public unemployment-benefit programmes for older workers for which the job-search requirement is relaxed.

*c)* Data for Germany refer to 2008 instead of 2007 for the unemployment benefit scheme.

*Source: OECD Social Policies Database* (*http://dx.doi.org/10.1787/socx-data-en*) and national sources. See annex Table 1.A1.2 for details on the programmes included and the sources used.

StatLink http://dx.doi.org/10.1787/888932852542

the increase in labour force participation following the global financial crisis, including composition effects, the health status of older workers and wealth effects. Each is discussed briefly below.

A key factor behind the trend increase in labour force participation is the gradual change in the composition of older workers by educational attainment. A shift-share analysis of the change in OECD labour force participation rates between 2000 and 2011 across gender and three education groups suggests that about a third of the change in labour force participation can be attributed to changes in the composition of older workers, and particularly older women.[25] This mainly reflects the role of rising education levels across subsequent cohorts. Higher education levels tend to increase labour force participation not only because education increases the returns to work, but also because education might increase task complexity and work autonomy, and, thereby, increase the intrinsic value of work.[26]

Second, older workers may increasingly have managed to stay healthy for longer as a result of several important developments. First, changes in the composition of jobs have prevented older workers from becoming disabled or have induced older workers to postpone their retirement decisions. For example, as a result of structural changes, the composition of employment may have shifted away from physically demanding and dangerous jobs in mining, construction and manufacturing to services.[27] Second, secular trends in preventive health systems could also play an important role in raising the physical age at which persons can remain productive at work. Apart from developments that allow older workers to stay in better health, general increases in health and safety

standards at work may also play a role. However, at the same time, there has been an increasing awareness that more needs to be done to tackle mental health problems that can lead to early exits from the labour force (OECD, 2012b).

Third, labour force participation may have increased since the start of the global financial crisis to compensate for losses in wealth or household income. In some countries such as Ireland, Spain and the United States, the global financial crisis has been associated with unusually large losses in pension and/or housing wealth, and these may have induced older workers to stay longer in the labour force.[28] However, early evidence by Coile and Levine (2011), Gustman et al. (2011) and McFall (2011) for the United States does not suggest that changes in wealth as a result of the global financial crisis have given rise to major changes in retirement behaviour. In principle, large losses in household income as a result of the global financial crisis could induce some household members to supply more labour. This argument is likely to be particularly important for women who increased their labour force participation in countries such as Estonia and Spain, but probably less relevant for explaining changes in labour force participation among older people.

## 3. Do older workers crowd out youth?

This section analyses the relationship between youth and older worker employment. This is motivated by two factors. First, in the past early retirement has often been used in the hope that this would open up jobs for youth. Although the evidence so far suggests that such policies have been ineffective in creating jobs for youth, the persistently high levels of youth unemployment in many OECD countries in the aftermath of the global financial crisis may have increased the pressure on governments to resort to similar practices. Second, the analysis in the previous section clearly reveals the mixed fortunes of youth and older workers. While older workers have witnessed gradually improving labour market outcomes and have been able to withstand the fall out of the crisis reasonably well, the evolution of youth labour market outcomes is much less favourable. This raises the question whether older workers may have crowded out youth in employment during the global financial crisis. By analysing the relationship between older worker employment and youth employment, the analysis in this section seeks to assess both to what extent lower employment rates for older workers generate higher employment rates for youth and to what extent increased employment of older workers crowds out employment for youth.

The traditional argument for encouraging older workers to withdraw from the labour market by means of early retirement schemes is based on the belief that this opens up new opportunities for youth and reduces unemployment. This is often referred to as the *lump-of-labour* argument. It is based on two assumptions. First, the number of jobs is fixed. Many economists consider this a fallacy since employment is a not a given quantity but an outcome. Whether or not a reduction in the supply of older workers will increase the demand for other labour force participants depends on many factors including how the labour force withdrawal of older workers will be financed and its implications for labour taxes. Second, it assumes that younger and older workers are *substitutes* in employment rather than *complements*. In general, younger and older workers are likely to be employed in very different jobs doing very different tasks. Older workers necessarily have more labour market experience and are likely to be over-represented in declining industries, whereas younger workers have little labour market experience and are more likely to be employed in expanding industries. The very different job profiles of younger and older workers reduces the probability that they are substitutes in production and may even imply they are complements.

The empirical literature that specifically analyses the relationship between youth employment and employment of older workers is relatively small.[29] A series of papers in Gruber and Wise (2010) examine whether employment of older individuals crowds out employment of youth in 12 OECD countries. Neither evidence from country-case studies nor that from cross-country analysis suggest that increasing employment of older individuals harms youth's employment prospects. If anything, the available evidence suggests that higher employment rates for older people are associated with higher employment rates for youth, implying that youth and older workers are complements in production. Gruber and Mulligan (2008) investigate the evidence for the United States using state-level data and also find little evidence of substitution between youth and the older workers. A more recent study by Munnell and Wu (2012) for the United States provides similar results. They also assess whether the relationship between youth and older worker employment changed as a result of the global financial crisis. This is potentially interesting because during a recession the number of jobs may be considered to be "rationed" and, consequently, the idea of representing the number of job opportunities as fixed may be more reasonable. Even so, their results do not show any significant changes in the relationship between youth employment and that of older workers. Kalwij et al. (2010) estimate a dynamic model using data for 22 OECD countries to analyse the short-term relationship between youth and older worker employment, but do not find a strong relationship between the two. Using variation across local labour markets in Norway, Vestad (2013) finds that for each five new early retirees one young person becomes employed. He thus provides evidence that older workers and youth are substitutes, although imperfectly since the relationship between youth and older worker employment is far from one-to-one.

### *Reducing employment for older workers does not improve youth employment*

This section provides new evidence on the relationship between employment of youth and older workers using data across 25 OECD countries over the period 1997-2011. Importantly, the period under consideration includes part of the global financial crisis and, thus, allows assessing whether this relationship has changed since the start of the global financial crisis. The key challenge for identifying the causal impact of the employment of older workers on youth employment is to control for any factors that might affect both. Therefore, in a first exercise to estimate this relationship, controls are included for macroeconomic conditions and the role of policies and institutions. Failing to control for these factors will tend to induce an upward bias in the estimated impact of the employment of older workers on youth employment and thus increase the likelihood of finding that youth and older workers are complements in employment. Including proxy variables for these factors and country fixed effects is likely to go some way in addressing omitted variable bias, but unlikely to remove it completely. Therefore, as a second exercise, an instrumental approach is employed which uses life expectancy at age 65 as an instrument for the employment rate of older persons. Life expectancy is likely to be a valid instrument since it is unrelated to the youth employment rate but has significant explanatory power over the employment rate of older persons.[30] A negative impact of the employment rate of older persons on the employment rate of youth is interpreted as evidence of crowding out, while a positive coefficient conveys the message that older workers and youth are complements. For further details on the methodology used, see Box 1.5.

### Box 1.5. **Estimating the impact of older workers' employment on youth employment**

The impact of the employment rate of older persons on the employment rate of youth is estimated using the following standard fixed-effects model:

$$e_{it}^{15-24} = \beta_1 e_{it}^{55-64} + \sum_{x=1}^{X} \gamma_x X_{it} + u_i + u_t + \varepsilon_{it} \quad (1)$$

where $e_{it}^{15-24}$ refers to the employment rate of youth aged 15-24 in country *i* in year *t*. The key independent variable in the regression is $e_{it}^{55-64}$ which represents the employment rate of older people aged 55-64. The vector *X* includes a set of factors that vary across countries and time and may affect both youth employment rates and employment rates of older workers. It includes proxies that control for differences in labour market conditions (GDP per capita, GDP growth, the unemployment rate and a house price index), policies and institutions (employment protection of regular workers, the generosity of unemployment benefits and collective bargaining coverage) and the educational composition of youth and older worker employment (the shares of medium and high-skilled employment by age group). $u_i$ represents a country-fixed effect which controls for unobservable factors that affect both youth employment and employment of older workers but do not vary over time. $u_t$ represents a full set of time dummies that captures the role of macroeconomic developments that are common across countries.

While the fixed-effects model discussed above already controls for a lot of observed and unobserved variation that affects employment for youth and older workers, it is still possible that the results are driven by unobserved factors related to the policy environment or business conditions that affect employment of both youth and older workers in the same way and, thus, induce an upward bias in the estimated impact of older worker employment on youth employment. In order to address this issue, Equation (1) is also estimated using a two-stage instrumental variables approach using life expectancy at age 65 as an instrument for the employment rate of older workers. This is likely to be a valid instrument as it has significant predictive power over older worker employment but is unlikely to be correlated with the youth employment rate.

To the extent that during recessions many jobseekers are competing for a limited number of jobs, one might expect the potential for crowding out to become more important during periods when labour demand is depressed. In order to analyse whether the relationship between older worker employment and youth employment changes over the course of the business cycle or has changed since the start of the global financial crisis, the empirical model is re-estimated while allowing for differences in the coefficient in normal times (before the crisis) and during recessions (since the start of the global financial crisis). More specially, Equation (1) is complemented using a dummy D that equals 1 during recessions (since the start of the global financial crisis) and zero otherwise and an interaction term between older worker employment and the recession (crisis) dummy. This is represented by Equation (2) as follows:

$$e_{it}^{15-24} = \beta_1 e_{it}^{55-64} + \beta_2 D_{it} + \beta_3 e_{it}^{55-64} D_{it} + \sum_{x=1}^{X} \gamma_x X_{it} + u_i + u_t + \varepsilon_{it} \quad (2)$$

The results suggest that on average across the OECD increases in the employment rate of older workers are either associated with increases in the youth employment rate or have no impact at all. The baseline regression, reported in Column 1 of Table 1.1, attempts to control for the role of confounding factors by including proxy variables for cross-country differences in macroeconomic conditions, policies and institutions and the educational

Table 1.1. **The impact of older workers employment on youth employment**

25 OECD countries, 1997-2011, dependent variable: youth employment rate

| | Fixed effects regressions | | | Instrumental variable regressions[a] | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Employment rate of persons 55-64 | 0.33*** | 0.34*** | 0.33*** | -0.18 | -0.14 | -0.22 |
| | (0.05) | (0.06) | (0.06) | (0.32) | (0.33) | (0.33) |
| Crisis dummy | | 1.08 | | | 1.99 | |
| | | (1.77) | | | (2.04) | |
| Recession dummy | | | -0.31 | | | -0.280 |
| | | | (0.99) | | | (1.10) |
| Employment rate persons 55-64* crisis dummy | | -0.01 | | | -0.04 | |
| | | (0.03) | | | (0.03) | |
| Employment rate of persons 55-64* recession dummy | | | 0.02 | | | 0.01 |
| | | | (0.02) | | | (0.02) |
| Control variables[b] | Yes | Yes | Yes | Yes | Yes | Yes |
| Country dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| Time dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 241 | 241 | 241 | 241 | 241 | 241 |
| R squared | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |

Robust standard errors in parentheses.

***, **, * statistically significant at 1%, 5% and 10% levels, respectively.

*a)* Life expectancy at age 65 is used as an instrument for the employment rate of older workers.

*b)* Control variables include: log of GDP per capita, GDP annual growth rate, unemployment rate, house-price index, index of employment protection of regular workers, the average unemployment-benefit net replacement rate and the collective bargaining coverage, shares of medium and high-skilled in youth and old-age employment, respectively.

*Source:* OECD estimates based on national labour force surveys.

StatLink http://dx.doi.org/10.1787/888932853321

composition of employment by age group as well as time-invariant country-fixed effects that control for any unobserved cross-country differences that are constant over time. The results suggest that a 1 percentage point increase in the employment rate for older workers gives rise in the long-run to an increase in the youth employment rate by 0.3 percentage points. In order to account for the possibility that employment of older workers is correlated with any omitted factors that also affect youth employment, the employment rate of older workers is instrumented using life expectancy at age 65. The coefficient associated with the employment rate of older workers, reported in Column 4 of Table 1.1, is now negative but much smaller and no longer statistically significant: in other words, increases in the employment rate of older workers have no impact on the employment rate of youth.

There is no evidence that the relationship between employment of older workers and youth is significantly different during recession periods or has changed since the start of the global financial crisis. This can be seen from Columns 2, 3, 5 and 6 in Table 1.1. The estimated coefficients on the interaction terms between the employment rate of older workers and the financial crisis dummy or the recession dummy are very small and statistically insignificant. Moreover, the coefficients on the employment rate of older workers is unaffected.

### *Investing in strategies that promote better employment outcomes at all ages*

In short, in line with most previous findings in the literature, the present estimates show no evidence that higher employment of older workers reduces job opportunities for youth. Thus, youth employment outcomes do not appear to have suffered from rising employment of older workers since the early 2000s. These findings also suggest that policies that encourage older workers to withdraw permanently from the labour market would be both expensive for the public purse and ineffective in alleviating the problem of high and persistent youth unemployment. Moreover, in the context of rapid population ageing, resorting to early retirement schemes would undermine the sustainability of social security systems and increase the risk of having to reduce its generosity in the future.

Instead, governments should pursue mutually reinforcing strategies that will lead to better employment prospects for both younger and older people, in particular:

- Growth-enhancing *structural reforms* can potentially benefit the labour market outcomes of both youth and older workers. An important example in this regard are reforms that seek to make the system of employment protection more balanced across different types of contracts in countries with a dual labour markets characterised by strong job protection for regular workers and a high incidence of temporary work (see Chapter 2 of this publication for further details).
- Targeted *active labour market policies* can help youth and older workers with specific problems of finding or staying in employment. Both youth and older workers have sometimes received less attention from employment agencies either because they do not qualify for unemployment benefits (youth) or because they have been exempted from job search (older workers). Training and work-experience programmes can play an important role in helping disadvantaged youth getting a foothold in the labour market, whereas the effective provision of job-search assistance may be especially important for helping unemployed older workers back into work. Governments should make sure that no groups are excluded from accessing effective employment services (see Chapter 3 of this publication for an in-depth analysis of activation systems and active labour market policies in selected OECD countries).
- An innovative approach may be to invest in building effective *intergenerational partnerships* between young and older workers. Such measures typically seek to strengthen complementarities in employment between youth and older workers by promoting: i) the transfer of competences between older and younger workers; and ii) the creation of jobs for youth and the retention older workers in employment. A number of OECD countries have recently introduced initiatives that seek to foster intergenerational partnerships (see Box 1.6). While little is known about the effectiveness of these schemes to create jobs for youth and retain older workers in employment, they are unlikely to have played a major role so far (European Parliament, 2013). However, the main value of such schemes may be to foster a culture of greater co-operation across age groups.

### Box 1.6. **Building effective intergenerational partnerships**

This box discusses a number of measures that have recently been introduced to promote intergenerational partnerships in four OECD countries. Intergenerational partnerships seek to strengthen complementarities in employment between youth and older workers by promoting, on the one hand, the transfer of competences between older and young workers (e.g. firm-specific knowledge of older workers, entrepreneurship of young workers) and, on the other, the creation of jobs for youth and the retention older workers in employment. In practice, measures to promote intergenerational partnerships tend to take the form of tailored hiring subsidies or work-sharing arrangements.

- In 2005, the federal authorities in *Belgium* enacted the Pact on solidarity between generations. The Pact was initially intended to contain only end-of-career measures, but youth employment measures were added at the request of the unions. The Pact consists of three components: active ageing, social security arrangements and jobs for youth. For example, it contains measures that aim at facilitating the recruitment of unskilled youth and promoting continued work of older workers beyond the pensionable age. The Belgian Higher Labour Council recently evaluated a large number of the measures included in the Pact. Its main findings are that their effects on active ageing have been minimal and that 16 of the measures have not or have not yet been fully implemented (*Conseil Supérieur de l'Emploi*, 2012).
- In *France*, the government introduced the "*contrat de génération*" (generation contract) in 2013. The key idea is that the employment of younger and older workers can be rendered more complementary by promoting knowledge transfers across generations within firms. The *contrat de génération* gives subsidies to small and medium-sized companies (with less than 300 employees) for signing permanent contracts with people under the age of 26, while maintaining a corresponding older employee aged 57 or over in work or hiring a worker older than 55. The subsidy amounts to EUR 4 000 a year for a period of three years. For medium-sized companies (50-300 employees) the subsidy is conditional on having a negotiated collective agreement with specific reference to the *contrat de génération*, while this is not required for small firms. While the subsidy does not specifically target the least qualified, the subsidy is relatively more important for low-paid workers since it is a lump-sum that does not depend on earnings. Large companies (300+ employees) are not entitled to any subsidies but have an obligation to negotiate a collective agreement in the context of the *contrat de génération* and elaborate an action plan (see for more details: *http://travail-emploi.gouv.fr/contrat-de-generation,2232/*).
- In *Italy*, a programme is in place since 2007 that promotes solidarity agreements between generations (L. 296 del 27/12/2006 – *Legge finanziaria*, 2007). The programme aims at promoting hires of unemployed youth aged 25 to 29, while maintaining older workers in employment. The solidarity agreement promotes work sharing by facilitating and encouraging the transformation of full-time contracts of workers over 55 into part-time jobs, while generating at the same time part-time jobs for unemployed young people under 25 or under 30 if they have a university degree.
- In *Spain*, the Strategy for Entrepreneurship and Youth Employment for 2013-16 includes among its measures a subsidy for inter-generational partnerships. More specifically, the strategy introduces a new hiring subsidy for young entrepreneurs who recruit a long-term unemployed worker aged 45 or above on an open-ended or fixed-term contract with a duration of at least 18 months. The subsidy takes the form of a 100% reduction in social-security contributions during the first year of the contract.

## Conclusions

Given the current and projected extent of labour market slack in the OECD area, the main policy priority must be to take action to underpin aggregate demand. Monetary policies have to remain accommodative. Fiscal consolidation is required in many OECD countries. However, its speed should be calibrated to country-specific circumstances so as to avoid excessive tightening.

Given limited resources and the difficult labour market situation, it is also of key importance that labour market policy priorities are set appropriately by allocating the resources that are available to their most effective use. This means first of all that resources are safeguarded for *effective* active labour market policies and, to the extent possible, increased in line with labour market needs. As documented in last year's *OECD Employment Outlook* (OECD, 2012, Chapter 1), the sharp decline in resources per unemployed job seeker since the start of the financial crisis raises important concerns. The decline in the intensity of job-search support for the unemployed may lead to discouragement and withdrawal from the labour market, thereby aggravating the difficult labour market situation but also hindering the long-term potential for economic growth. As highlighted in the chapter, youth and the low-skilled have been hit hardest by the crisis and should be the focus of reinforced measures to help them return to work or improve their employability (see also Chapter 3 in this volume).

Setting priorities appropriately also means resisting pressures to introduce measures that actively seek to encourage older workers to withdraw from the labour market. In light of the still very difficult labour market situation of youth in many OECD countries, governments may be under pressure to resort to early retirement measures in the hope that this frees up jobs for young workers. Such pressures may be reinforced by the flawed perception that the improved labour market performance of older workers may somehow have come at the cost of youth. However, this chapter provides new evidence that shows that the good employment performance of older workers during the past decade did not come at the expense of worse employment outcomes for youth and that policies which encourage older workers to withdraw from the labour market are ineffective in alleviating the problem of high and persistent unemployment (as well as very expensive for the public purse). It is, therefore, reassuring that governments appear to have so far resisted pressures to introduce measures encouraging early retirement. Rather than reinforcing the public perception that older and younger workers compete for a fixed number of jobs, governments should pursue a strategy of improving job prospects for both younger and older workers.

The difficult economic and labour market situation is also likely to increase the need for structural reforms in some OECD countries that can enhance long-term economic growth and labour market performance. Indeed, the crisis and the subsequent need for fiscal consolidation already appear to have acted as an important catalyst for structural reforms, particularly in countries where reforms were most needed (OECD, 2013b; and Chapter 2 of this edition on reforms to employment protection legislation). However, the benefits of structural reforms take time to materialise and there can be important transitional costs depending on the specific nature and timing of such reforms. In addition to the distributional implications of structural reforms, this provides one important explanation about why implementing such reforms tends to be so difficult in practice. It will therefore be important to take any potential transitional costs explicitly into account when designing structural reforms.

## *Notes*

1. Output gaps are difficult to estimate and subject to substantial uncertainty since they are not directly observable. OECD work in this area generally follows an aggregate production function approach, taking into account the capital stock, changes in labour supply, factor productivities and underlying "non-accelerating inflation rates of unemployment" (NAIRU). For further details, see Beffy et al. (2006).
2. Unlike previous editions of the *OECD Employment Outlook*, the jobs gap is defined here relative to the historical trend of employment as measured by "potential employment" instead of the actual evolution in the working-age population. The reason for using a slightly different definition of the jobs gap is that the current definition takes account of structural trends in both employment and the population and is conceptually consistent with the definitions of the output gap, the NAIRU and the OECD short-term projections used in this chapter. The method used here and the one used in previous editions of the *OECD Employment Outlook* yield very similar results.
3. For absolute jobs-gap numbers, see Table 1.A2.1 of the online annex (OECD, 2013a).
4. Note that unit labour cost measures deal exclusively with the cost of labour and thus do not take account of the cost of capital which is also important for understanding cross-country differences in cost-competiveness. Another important caveat when using unit labour costs as a measure of international competitiveness is that no account is taken of exchange-rate movements.
5. However, these trends should be interpreted with caution. Apart from reflecting trends in cost competitiveness (in terms of the cost of labour per unit of output), changes in unit labour costs may also reflect compositional effects related to changes in the composition of the workforce and economic structure. It may also reflect differences in the role of hours adjustments and labour hoarding for overall labour market adjustment.
6. The focus is on the wages of *full-time* workers in order to abstract from changes in working hours and to control, at least to some extent, for changes in the composition of the workforce that may have occurred during the period under consideration.
7. Greece, Ireland and Portugal stand out in this regard. In those countries, there has been a large reduction in the dispersion of earnings in the bottom half of the distribution, while earnings dispersion has been stable or increased in the top half of the distribution. This is consistent with a pattern of wage polarisation.
8. Household market income represents the sum of household capital and labour income before taking account of taxes and benefits but after adjusting income for household size.
9. Migrants have also been hit disproportionately hard by the global financial crisis. The unemployment rate of the foreign-born rose by 5 percentage points between 2008 and 2012, whereas that of the native-born increased by 3 percentage points over the same period (OECD, 2013d).
10. The importance of reduced labour force participation relative to increased unemployment for *youth* also suggests that increases in youth unemployment rates following the global financial crisis largely reflect falling labour force participation rather than rising unemployment.
11. As will be discussed in more detail below, in the past many governments provided incentives to withdraw from the labour market to older workers in the form of easy access to early retirement or disability schemes.
12. Downturns that relate to more than one decade are allocated to the decade where the bulk of the downturn took place. This implies that many of the downturns that started in the late 1980s tend to be allocated to the 1990s in practice.
13. The present analysis requires a long time series to allow making comparison across crisis episodes. Such information is not available by skill group for the majority of OECD countries.
14. It confirms that, for the working-age population as a whole, the impact of the global financial crisis on labour market outcomes has been among the strongest since the downturns in the 1970s.
15. For figures for all countries for which appropriate data are available, see Figure 1.A2.4 of the online annex to this chapter (OECD, 2013a).
16. The changes in self-reported disability rates in Finland seem to be too large to be driven by changes in health conditions alone. This may reflect the possibility that individuals respond with reference to their official health status in administrative systems rather than solely on the basis of their own perceived physical or mental capability of working. While in Finland and Poland disability benefit caseloads have fallen over the period 2001-11, only in Poland is the decline sufficiently large to account for the observed changes in self-reported disability rates (OECD, 2010b).
17. For a comprehensive discussion, see OECD (2006b).

18. Blondal and Scarpetta (1998) and Duval (2004) also analyse implicit tax rates on continued work across OECD countries. These studies show that implicit taxes on continued work tend to be high in Continental European countries compared with English-speaking countries, the Nordic countries, Japan and Korea. They also show that implicit taxes significantly reduce labour force participation among older workers. There is also some evidence that disability and unemployment insurance programmes have been used as *de facto* early retirement schemes.

19. Although the intention was to help a particularly vulnerable group, there is now considerable evidence that the health status of workers with partial disabilities actually tends to deteriorate when they are on disability benefits, as compared to when they remain in work or return to work (OECD, 2010b).

20. New estimates conducted in the context of the present chapter do not point to any significant effects of implicit tax rates on the employment and labour-force-participation responses of older workers to major economic downturns.

21. This issue will be discussed in more detail in Section 3 of this chapter.

22. Coile and Levine (2013) show for the United States that economic downturns promote retirement decisions, but only from age 62 when workers become eligible for social security (pensions). The generosity of Unemployment Insurance (UI) does not appear to have an impact on retirement decisions. This suggests that UI plays little or no role in assisting older workers who lose their jobs to delay retirement, but that the old-age pension plays an important role in helping older workers cope with recessions.

23. In addition, Spain has made a number of recent reforms in relation to early retirement. The system of early retirement pensions was reformed in early 2013 to increase the effective retirement age and incentives to continue working at older ages. Unemployment subsidies for older workers have been reformed in 2012. The special unemployment subsidy for workers over 45 was eliminated and the unemployment subsidy for workers over 52 was transformed and the initial entry age increased to 55 years. In Portugal early retirement schemes have been suspended, with some exceptions, since 2012 until at least until 2014.

24. A recent study by the European Parliament (2013) reaches the same conclusion.

25. The results from this decomposition for the OECD average, as well as by country, can be found in Figure 1.A2.5 of the online annex to this chapter (OECD, 2013a).

26. Since the analysis here is based on age bands, composition effects with respect to age may also play a role, particularly in the short-run. However, it is unlikely that such effects are very important in the medium to long-term.

27. Secular developments in the level of work intensity and job security, which both have been shown to be important determinants of stress at work and mental health, may also play a role. While there is limited systematic evidence on the evolution of work intensity and job security, most accounts seem to point towards increasing levels of work intensity and lower job security, which, if anything, would tend to reduce the effective retirement age.

28. It should be noted that potential changes in pension wealth mainly concern those countries where an important part of pension contributions are in managed funds. In countries where pension schemes are mostly defined-benefit schemes, this will not be an issue.

29. See European Parliament (2013) for a comprehensive overview.

30. Munnell and Wu (2012) use a similar instrument based on the mortality rate of older workers.

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# ANNEX 1.A1

## *Recent and projected labour market developments*

Table 1.A1.1. **Recent and projected developments in OECD countries**[a]

| | Real GDP growth (percentage change from previous period) | | | | | | | Employment growth (percentage change from previous period) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Average 2005-08 | 2009 | 2010 | 2011 | 2012 | Projections | | Average 2005-08 | 2009 | 2010 | 2011 | 2012 | Projections | |
| | | | | | | 2013 | 2014 | | | | | | 2013 | 2014 |
| **America** | | | | | | | | | | | | | | |
| Chile | 5.1 | -0.9 | 5.8 | 5.9 | 5.5 | 4.9 | 5.3 | 2.8 | 0.0 | 7.4 | 5.0 | 1.8 | 1.0 | 1.2 |
| Canada | 2.2 | -2.8 | 3.2 | 2.6 | 1.8 | 1.4 | 2.3 | 1.8 | -1.6 | 1.4 | 1.5 | 1.2 | 1.0 | 1.3 |
| Mexico | 3.2 | -6.0 | 5.3 | 3.9 | 3.9 | 3.4 | 3.7 | 1.6 | 0.5 | 1.1 | 2.2 | 3.3 | 2.4 | 2.7 |
| United States | 1.8 | -3.1 | 2.4 | 1.8 | 2.2 | 1.9 | 2.8 | 1.1 | -3.8 | -0.6 | 0.6 | 1.8 | 1.2 | 2.0 |
| **Asia** | | | | | | | | | | | | | | |
| Japan | 1.0 | -5.5 | 4.7 | -0.6 | 2.0 | 1.6 | 1.4 | 0.3 | -1.5 | -0.3 | -0.1 | -0.3 | 0.2 | -0.1 |
| Korea | 4.1 | 0.3 | 6.3 | 3.7 | 2.0 | 2.6 | 4.0 | 1.1 | -0.3 | 1.4 | 1.7 | 1.8 | 0.8 | 1.3 |
| Israel | 5.2 | 1.1 | 5.0 | 4.6 | 3.2 | 3.9 | 3.4 | 3.7 | 2.0 | 3.5 | 3.0 | 3.2 | 2.0 | 2.7 |
| **Europe** | | | | | | | | | | | | | | |
| Austria | 2.8 | -3.5 | 2.2 | 2.7 | 0.8 | 0.5 | 1.7 | 2.2 | -0.3 | 0.5 | 1.2 | 1.0 | -0.1 | 0.7 |
| Belgium | 2.1 | -2.8 | 2.4 | 1.9 | -0.3 | 0.0 | 1.1 | 1.5 | -0.2 | 0.7 | 1.3 | 0.2 | -0.2 | 0.0 |
| Czech Republic | 5.7 | -4.4 | 2.3 | 1.8 | -1.2 | -1.0 | 1.3 | 1.6 | -1.4 | -1.0 | 0.4 | -0.3 | -0.1 | -0.1 |
| Denmark | 1.6 | -5.7 | 1.6 | 1.1 | -0.5 | 0.4 | 1.7 | 1.0 | -2.9 | -2.3 | -0.1 | -0.5 | 0.1 | 0.4 |
| Estonia | 5.4 | -14.1 | 3.3 | 8.3 | 3.2 | 1.5 | 3.6 | 2.4 | -9.2 | -4.2 | 6.7 | 2.6 | 0.4 | 0.6 |
| Finland | 3.2 | -8.5 | 3.3 | 2.8 | -0.2 | 0.0 | 1.7 | 1.7 | -2.9 | -0.4 | 1.1 | 0.4 | -0.5 | 0.1 |
| France | 1.6 | -3.1 | 1.6 | 1.7 | 0.0 | -0.3 | 0.8 | 1.1 | -1.0 | 0.2 | 0.3 | 0.1 | -0.1 | 0.0 |
| Germany | 2.2 | -5.1 | 4.0 | 3.1 | 0.9 | 0.4 | 1.9 | 0.8 | 0.1 | 0.6 | 1.4 | 1.1 | 0.4 | 0.5 |
| Greece | 2.8 | -3.1 | -4.9 | -7.1 | -6.4 | -4.8 | -1.2 | 1.4 | -1.1 | -2.7 | -6.8 | -8.0 | -5.7 | -2.1 |
| Hungary | 2.2 | -6.7 | 1.3 | 1.6 | -1.8 | 0.5 | 1.3 | -0.1 | -2.5 | 0.0 | 0.8 | 1.7 | -0.2 | 0.3 |
| Iceland | 4.8 | -6.6 | -4.1 | 2.9 | 1.6 | 1.9 | 2.6 | 3.4 | -6.1 | -0.3 | 0.3 | 1.1 | 0.8 | 1.0 |
| Ireland | 3.6 | -5.5 | -0.8 | 1.4 | 0.9 | 1.0 | 1.9 | 3.0 | -8.2 | -2.4 | -1.8 | -0.6 | 0.4 | 0.2 |
| Italy | 0.9 | -5.5 | 1.7 | 0.5 | -2.4 | -1.8 | 0.4 | 1.1 | -1.6 | -0.6 | 0.3 | -0.2 | -1.1 | -0.6 |
| Luxembourg | 4.0 | -4.1 | 2.9 | 1.7 | 0.3 | 0.8 | 1.7 | 2.2 | 1.3 | 1.7 | 2.5 | 2.3 | 1.4 | 2.0 |
| Netherlands | 2.8 | -3.7 | 1.6 | 1.1 | -1.0 | -0.9 | 0.7 | 1.3 | -0.6 | -0.4 | 0.6 | -0.1 | -0.8 | -0.3 |
| Norway | 1.9 | -1.6 | 0.5 | 1.2 | 3.2 | 1.3 | 3.0 | 2.6 | -0.6 | 0.1 | 1.4 | 2.0 | 1.5 | 1.4 |
| Poland | 5.4 | 1.6 | 3.9 | 4.5 | 2.0 | 0.9 | 2.2 | 3.5 | 0.4 | 0.6 | 0.6 | 0.2 | -0.4 | -0.4 |
| Portugal | 1.1 | -2.9 | 1.9 | -1.6 | -3.2 | -2.7 | 0.2 | 0.4 | -2.8 | -1.5 | -2.8 | -4.2 | -3.9 | -1.3 |
| Slovak Republic | 7.8 | -4.9 | 4.4 | 3.2 | 2.0 | 0.8 | 2.0 | 2.9 | -2.6 | -2.1 | 1.5 | -1.1 | -0.8 | 0.3 |
| Slovenia | 5.0 | -7.8 | 1.2 | 0.6 | -2.3 | -2.3 | 0.1 | 1.4 | -1.5 | -1.5 | -3.1 | -1.3 | -2.1 | -0.6 |
| Spain | 3.0 | -3.7 | -0.3 | 0.4 | -1.4 | -1.7 | 0.4 | 2.9 | -6.8 | -2.3 | -1.9 | -4.5 | -4.2 | -1.6 |
| Sweden | 2.6 | -5.0 | 6.3 | 3.8 | 1.2 | 1.3 | 2.5 | 1.5 | -2.1 | 0.5 | 2.3 | 0.6 | 0.7 | 0.8 |
| Switzerland | 3.1 | -1.9 | 3.0 | 1.9 | 1.0 | 1.4 | 2.0 | 1.8 | 0.4 | 0.5 | 2.2 | 1.1 | 0.7 | 1.0 |
| Turkey | 5.1 | -4.8 | 9.2 | 8.8 | 2.2 | 3.1 | 4.6 | 1.9 | 0.4 | 6.0 | 6.6 | 2.9 | 1.9 | 2.2 |
| United Kingdom | 2.0 | -4.0 | 1.8 | 1.0 | 0.3 | 0.8 | 1.5 | 0.8 | -1.6 | 0.2 | 0.5 | 1.2 | 0.9 | 0.7 |
| **Oceania** | | | | | | | | | | | | | | |
| Australia | 3.3 | 1.5 | 2.6 | 2.4 | 3.6 | 2.6 | 3.2 | 3.0 | 0.7 | 2.1 | 1.8 | 1.0 | 1.3 | 1.6 |
| New Zealand | 1.9 | 0.3 | 0.9 | 1.3 | 3.0 | 2.6 | 3.1 | 2.0 | -1.1 | 0.7 | 1.6 | 0.0 | 0.2 | 1.5 |
| **Euro area (15)**[b] | 2.1 | -4.3 | 1.9 | 1.5 | -0.5 | -0.6 | 1.1 | 1.4 | -1.8 | -0.4 | 0.1 | -0.6 | -1.0 | -0.2 |
| **Total OECD**[b] | **2.2** | **-3.6** | **3.0** | **1.9** | **1.4** | **1.2** | **2.3** | **1.3** | **-1.8** | **0.3** | **1.0** | **1.0** | **0.5** | **1.0** |

Table 1.A1.1. **Recent and projected developments in OECD countries**[a] *(cont.)*

| | Labour force growth (percentage change from previous period) | | | | | | | Unemployment rates (percentage of labour force) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Average 2005-08 | 2009 | 2010 | 2011 | 2012 | Projections | | Average 2005-08 | 2009 | 2010 | 2011 | 2012 | Projections | |
| | | | | | | 2013 | 2014 | | | | | | 2013 | 2014 |
| **America** | | | | | | | | | | | | | | |
| Chile | 2.2 | 3.4 | 4.2 | 3.9 | 1.1 | 1.0 | 1.1 | 8.0 | 10.8 | 8.1 | 7.1 | 6.4 | 6.5 | 6.5 |
| Canada | 1.5 | 0.7 | 1.0 | 1.0 | 1.0 | 0.9 | 1.0 | 6.3 | 8.3 | 8.0 | 7.5 | 7.3 | 7.1 | 6.9 |
| Mexico | 1.6 | 2.0 | 1.1 | 2.1 | 3.1 | 2.3 | 2.6 | 3.7 | 5.4 | 5.4 | 5.2 | 5.0 | 4.9 | 4.8 |
| United States | 1.2 | -0.1 | -0.2 | -0.2 | 0.9 | 0.6 | 1.4 | 5.0 | 9.3 | 9.6 | 8.9 | 8.1 | 7.5 | 7.0 |
| **Asia** | | | | | | | | | | | | | | |
| Japan | 0.1 | -0.4 | -0.3 | -0.6 | -0.6 | 0.0 | -0.1 | 4.1 | 5.0 | 5.0 | 4.6 | 4.3 | 4.2 | 4.1 |
| Korea | 1.0 | 0.2 | 1.5 | 1.4 | 1.6 | 0.8 | 1.2 | 3.4 | 3.6 | 3.7 | 3.4 | 3.2 | 3.3 | 3.2 |
| Israel | 2.2 | 4.0 | 2.2 | 1.7 | 3.0 | 2.4 | 2.2 | 9.7 | 9.5 | 8.3 | 7.1 | 6.9 | 7.2 | 6.8 |
| **Europe** | | | | | | | | | | | | | | |
| Austria | 1.9 | 0.7 | 0.1 | 0.9 | 1.2 | 0.3 | 0.7 | 4.5 | 4.8 | 4.4 | 4.1 | 4.3 | 4.7 | 4.7 |
| Belgium | 1.2 | 0.6 | 1.1 | 0.2 | 0.6 | 0.6 | 0.5 | 7.8 | 7.8 | 8.2 | 7.2 | 7.6 | 8.4 | 8.8 |
| Czech Republic | 0.6 | 1.1 | -0.4 | -0.2 | 0.0 | 0.3 | 0.1 | 6.2 | 6.7 | 7.3 | 6.7 | 7.0 | 7.3 | 7.5 |
| Denmark | 0.5 | -0.2 | -0.8 | 0.0 | -0.6 | 0.0 | 0.3 | 4.0 | 6.0 | 7.5 | 7.6 | 7.5 | 7.4 | 7.3 |
| Estonia | 1.3 | -0.5 | -0.8 | 1.4 | -0.1 | -0.1 | 0.2 | 6.0 | 13.9 | 16.8 | 12.5 | 10.1 | 9.7 | 9.3 |
| Finland | 1.1 | -0.9 | -0.3 | 0.4 | 0.3 | 0.1 | 0.0 | 7.3 | 8.3 | 8.4 | 7.8 | 7.7 | 8.2 | 8.1 |
| France | 0.7 | 0.9 | 0.4 | 0.2 | 0.8 | 0.9 | 0.4 | 8.3 | 9.1 | 9.3 | 9.2 | 9.9 | 10.7 | 11.1 |
| Germany | 0.1 | 0.3 | -0.1 | 0.3 | 0.6 | 0.1 | 0.2 | 9.0 | 7.4 | 6.8 | 5.7 | 5.3 | 5.0 | 4.8 |
| Greece | 0.6 | 0.9 | 0.8 | -1.0 | 0.0 | -1.1 | -1.3 | 8.7 | 9.5 | 12.5 | 17.7 | 24.2 | 27.8 | 28.4 |
| Hungary | 0.3 | -0.2 | 1.2 | 0.6 | 1.8 | 0.3 | 0.4 | 7.5 | 10.0 | 11.1 | 10.9 | 10.9 | 11.4 | 11.5 |
| Iceland | 3.4 | -1.8 | 0.1 | -0.6 | 0.1 | 0.1 | 0.5 | 2.6 | 7.3 | 7.7 | 6.9 | 5.9 | 5.3 | 4.8 |
| Ireland | 3.4 | -2.2 | -0.1 | -0.9 | -0.6 | -0.1 | 0.0 | 4.8 | 11.8 | 13.9 | 14.6 | 14.7 | 14.3 | 14.1 |
| Italy | 0.7 | -0.5 | 0.1 | 0.3 | 2.3 | 0.4 | 0.0 | 6.8 | 7.8 | 8.4 | 8.4 | 10.6 | 11.9 | 12.5 |
| Luxembourg | 2.3 | 2.7 | 2.0 | 2.3 | 2.8 | 2.0 | 2.0 | 4.2 | 5.4 | 5.8 | 5.6 | 6.1 | 6.7 | 6.7 |
| Netherlands | 0.8 | 0.1 | 0.3 | 0.6 | 0.8 | 0.5 | 0.4 | 4.0 | 3.7 | 4.4 | 4.3 | 5.2 | 6.4 | 7.0 |
| Norway | 2.2 | 0.0 | 0.5 | 1.1 | 1.9 | 1.6 | 1.5 | 3.2 | 3.1 | 3.5 | 3.2 | 3.1 | 3.2 | 3.3 |
| Poland | 0.0 | 1.6 | 2.2 | 0.6 | 0.7 | 0.4 | 0.2 | 12.1 | 8.2 | 9.6 | 9.6 | 10.1 | 10.8 | 11.3 |
| Portugal | 0.6 | -0.8 | -0.1 | -0.7 | -0.9 | -0.9 | -0.8 | 7.7 | 9.5 | 10.8 | 12.7 | 15.6 | 18.2 | 18.6 |
| Slovak Republic | 0.4 | 0.2 | 0.6 | 0.5 | -0.6 | -0.1 | 0.3 | 12.6 | 12.1 | 14.4 | 13.5 | 14.0 | 14.6 | 14.7 |
| Slovenia | 0.9 | 0.0 | 0.0 | -2.1 | -0.6 | -0.6 | -0.6 | 5.4 | 5.9 | 7.2 | 8.2 | 8.8 | 10.2 | 10.3 |
| Spain | 3.1 | 0.8 | 0.2 | 0.1 | -0.2 | -1.2 | -0.6 | 9.3 | 18.0 | 20.1 | 21.6 | 25.0 | 27.3 | 28.0 |
| Sweden | 1.2 | 0.2 | 0.8 | 1.4 | 0.8 | 1.0 | 0.7 | 6.8 | 8.3 | 8.6 | 7.8 | 8.0 | 8.2 | 8.1 |
| Switzerland | 1.5 | 1.3 | 0.7 | 1.7 | 1.3 | 1.1 | 0.8 | 3.8 | 4.3 | 4.4 | 3.9 | 4.1 | 4.5 | 4.4 |
| Turkey | 1.9 | 3.9 | 3.5 | 4.1 | 2.3 | 2.4 | 2.1 | 10.3 | 13.7 | 11.7 | 9.6 | 9.0 | 9.4 | 9.3 |
| United Kingdom | 1.1 | 0.4 | 0.5 | 0.7 | 1.1 | 0.9 | 0.7 | 5.3 | 7.6 | 7.9 | 8.1 | 7.9 | 8.0 | 7.9 |
| **Oceania** | | | | | | | | | | | | | | |
| Australia | 2.7 | 2.1 | 1.8 | 1.6 | 1.1 | 1.6 | 1.5 | 4.6 | 5.6 | 5.2 | 5.1 | 5.2 | 5.6 | 5.5 |
| New Zealand | 2.0 | 1.0 | 1.1 | 1.6 | 0.5 | 0.1 | 1.0 | 3.9 | 6.1 | 6.5 | 6.5 | 6.9 | 6.8 | 6.4 |
| **Euro area (15)**[b] | 1.0 | 0.3 | 0.2 | 0.2 | 0.7 | 0.1 | 0.0 | 8.0 | 9.4 | 9.9 | 10.0 | 11.2 | 12.1 | 12.3 |
| **Total OECD**[b] | **1.1** | **0.6** | **0.5** | **0.6** | **1.0** | **0.7** | **0.9** | **6.1** | **8.2** | **8.3** | **7.9** | **8.0** | **8.1** | **8.0** |

*a)* The OECD Secretariat's projection methods and underlying statistical concepts and sources are described in detail in "Sources and Methods: OECD Economic Outlook" which can be downloaded from the OECD Internet site (*www.oecd.org/eco/sourcesmethodsoftheoecdeconomicoutlook.htm*).

*b)* Aggregates are computed on the basis of 2008 GDP weights expressed in 2008 purchasing power parities for real GDP growth, employment weights for employment growth, and labour force weights for the unemployment rates.

*Source:* OECD (2013), *OECD Economic Outlook*, Vol. 2013, No. 1, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_outlook-v2013-1-en*.

StatLink *http://dx.doi.org/10.1787/888932853340*

## Table 1.A1.2. **National early retirement pension and unemployment benefit schemes for early retirement**

**A. Pension schemes for early retirement**

| | Original name | English translation | National source |
|---|---|---|---|
| Austria | Vorzeitige Alterspension bei langer Versicherungsdauer | Early retirement due to long periods of insurance | Bmask online database(*www.bmask.gv.at/cms/site/search.html?rf=60&query=essoss&locator=CH0002&suche=$bereich*) |
| Belgium | Pension anticipée Salariés | Early retirement for dependent employment | ONEM online database (*www.rva.be/Frames/frameset.aspx?Path=D_stat/&Items=1&Language=FR*) |
| Czech Republic | Důchodové pojištění: Starobní předčasný o 3 roky | Pension insurance for permanently reduced old-age pension | Basic Indicators of Labour and Social Protection (*www.mpsv.cz/files/clanky/11645/brozura_EN_05.pdf*) |
| | Důchodové pojištění: Starobní předčasný o 2 roky | Pension insurance for temporarily reduced old-age pension | |
| | Důchodové pojištění a nemocenská péče v ozbrojených silách: Předčasný starobní důchod | Anticipated old age pension | |
| Estonia | Ennetähtaegne vanaduspension | Early retirement pension | Statistical Yearbook (*www.stat.ee/publication-download-pdf?publication_id=25642*) |
| Finland | Varhennettu vanhuuseläke | Early retirement pension | KELA online database (*www.kela.fi/in/internet/english.nsf/NET/100702123749MH*) |
| France | Préretraites ASFNE, CATS, CAATA, ARPE | Early retirement pension | DARES |
| | Retraites anticipées pour carrière longue (RA) | Anticipated pension for long career | |
| Germany | Altersrente wegen Arbeitslosigkeit oder nach Altersteilzeitarbeit | State pension early retirement because of unemployment or part-time arrangements | Deutsche Rentenversicherung (*http://forschung.deutsche-rentenversicherung.de/ForschPortalWeb/*) |
| Hungary | Korkedvezményes öregségi nyugdíjak | Early pension for hazardous working conditions | Statistical Almanac (*www.onyf.hu/en/?module=news&action=getfile&fid=11048&rand=e68807aadbf7cc69a93807da51c286cc*) |
| | Előrehozott öregségi nyugdíj | Advanced old age pension | Statistical Almanac (*www.onyf.hu/en/?module=news&action=getfile&fid=11048&rand=e68807aadbf7cc69a93807da51c286cc*) |
| Italy | Prepensionamenti | Early retirement pension | INPS online database (*www.inps.it/webidentity/banchedatistatistiche/vig1/index01.jsp?CMDNAME=NAV571*) |
| Korea | 조기노령연금 | Early old age pension | |
| Luxembourg | CNAP: Pension de vieillesse anticipée | Pension scheme: early old-age pension | ESSPROS online database (*http://epp.eurostat.ec.europa.eu/portal/page/portal/social_protection/data*) |
| Mexico | Retiro anticipado (ISSSTE) | Early retirement pension (ISSSTE) | Anuarios estadisticos ISSSTE Cuadro 2-1-7 |
| Norway | AFP – Avtalefestet pensjon | Contractual pension | StatBank online database (*www.ssb.no/statistikkbanken/selecttable/hovedtabellHjem.asp?KortNavnWeb=nav_statres&CMSSubjectArea=sosiale-forhold-og-kriminalitet&PLanguage=1&checked=true*) |
| Portugal | Pensão Antecipada de Velhice | Anticipated old age pension | Seguranca Social (*www4.seg-social.pt/*) |

Table 1.A1.2. **National early retirement pension and unemployment benefit schemes for early retirement** *(cont.)*

**B. Unemployment-benefit schemes for early retirement**

| | Original name | English translation | National source |
|---|---|---|---|
| Australia | Mature Age Allowance (MAA) | - | FACHSIA Statistical Paper No. 5-8 |
| | Widow Allowance | - | DEEWR Bluebook dataset – Centrelink administrative data |
| Austria | Übergangsgeld | Transition benefit | BMASK report "Bezieherinnen und Bezieher von ESSOSS-Sozialleistungen 2000-2010" |
| | Sonderunterstützung Bergbau | Special benefit for mining industry | BMASK report "Bezieherinnen und Bezieher von ESSOSS-Sozialleistungen 2000-2010" |
| Belgium | Demandeurs d'emploi dispensés de recherche d'emploi indemnisés à partir de 50 ans (Article 89) | Unemployment benefit for older people not actively looking for work | ONEM online database (*www.rva.be/Frames/frameset.aspx?Path=D_stat/&Items=1&Language=FR*) |
| Denmark | Efterlønsmodtagere | Early retirement pay | StatBank online database (*www.statbank.dk/statbank5a/default.asp?w=1920*) |
| Finland | Työttömyyseläke | Unemployment pension | KELA online database (*www.kela.fi/in/internet\english.nsf/NET/110702093243MH*) |
| France | Demandeurs d'emploi dispensés de recherche d'emploi indemnisés | Unemployment benefit for older people not actively looking for work | DARES |
| Germany | Vorruhestandsähnliche Regelungen | Unemployed receiving early retirement or similar subsidies | Bundesagentur für Arbeit (*http://statistik.arbeitsagentur.de/Navigation/Statistik/Arbeitsmarktberichte/Jahresbericht-Arbeitsmarkt-Deutschland-Nav.html*) |
| Ireland | Pre-retirement allowance (PRETA) | - | Statistical Information on Social Welfare Services 2007-2010, Table B6 |
| Luxembourg | Pension préretraite | Pre-retirement benefit | ESSPROS online database (*http://epp.eurostat.ec.europa.eu/portal/page/portal/social_protection/data*) |
| Slovak Republic | Predčasný starobný dôchodok | Early retirement for unemployment reasons | Social Insurance online database (*www.socpoist.sk/646/1614s*) |

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*Chapter 2*

# Protecting jobs, enhancing flexibility: A new look at employment protection legislation

*This chapter describes the employment protection legislation (EPL) currently in force in OECD countries and selected emerging economies (including all G20 countries). It also presents the latest quantitative estimates of the degree of stringency of EPL, which can be compared across countries. These estimates are the result of a comprehensive effort to update the OECD EPL indicators based on a more accurate collection methodology and taking into account the relevant legislation, collective agreements and case law. This effort has also led to a significant revision of historical time series of these indicators. The chapter also characterises different models of employment protection across OECD countries. In addition, it points to a clear tendency towards reductions of the degree of stringency of employment protection over the past five years, mostly focused on regulations governing individual and collective dismissals.*

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## Key findings

Adjusting the level and composition of the workforce to adapt to changing demand conditions and technology is vital for effective businesses operation and therefore for productivity and economic growth. But job displacement entails significant costs for the workers concerned in terms of earning losses and the possible obsolescence of their job-specific skills and experience. Social costs are also important. For example, greater financial distress associated with job loss may entail health problems. To minimise these costs, public policies such as unemployment benefits, job-search assistance and active labour market programmes are put in place by governments. But these policies are financed by the society through higher taxes. Striking an adequate balance between allowing an efficient reallocation of labour resources and the need to protect employees is therefore a key priority for policy makers.

Historically, employment protection legislation (EPL), that is the rules governing the hiring and firing of workers, has been typically designed to protect jobs and increase job stability, by reducing job destruction, with the aim of preserving the individual worker and society from some of the above-mentioned costs. However, in some cases, constraints imposed to firms might be excessive, thereby discouraging job creation and needed reallocation. From both a research and policy perspective, it is important to accurately measure EPL in order to determine its labour market impacts, identify best practices and assess reform progress. Since the early 1990s, the OECD has sought to accurately measure regulations concerning the dismissal of regular employees and hiring of workers on temporary contracts. This chapter presents the latest estimates for OECD countries and selected emerging economies (including all G20 countries). They are the result of a comprehensive effort to update the OECD indicators, based on a more accurate collection methodology and taking account not only of legislation but also of national or branch-level collective agreements and case law, where relevant. This effort has also led to a significant revision of historical time series.

Three facts stand out from the comparative analysis of firing regulations across countries. First, countries with the strictest regulations as regards notification, negotiation and authorisation requirements before notice of termination of employment can be served tend to have also restrictive provisions in at least some other areas (e.g. severance pay or the definition and costs of unfair dismissals). Second, two alternative models of employment protection emerge. In a number of countries the definition of unfair dismissal is very narrow but workers are usually compensated, no matter whether termination was fair or wrongful. By contrast, in the other group of countries, ordinary compensation tends to be low or zero, but the definition of unfair dismissal is large and the compensation for unfair dismissal high. Third, with the main exception of a number of emerging economies, there seems to be a consensus among policy makers that mass dismissals have a particularly negative effect on social well-being and stricter protection is needed, so that the cross-country variation of the stringency of regulation on collective redundancies is smaller than that of individual dismissals.

Greater cross-country variation can be observed as regards regulations for temporary employment, partially due to the fact that those countries that intensively regulate standard fixed-term contracts typically take a restrictive stance as regards other forms of temporary contracts such as temporary-work-agency employment. By contrast, no clear, simple relationship emerges between regulations for permanent and temporary contracts. Instead, two country clusters emerge. On the one hand, common-law countries are typically characterised by unrestrictive regulations as regards temporary contracts and weak to intermediate protection against individual dismissal. On the other hand, the other countries are characterised by intermediate to high regulation of both temporary contracts and individual dismissals.

Although not included in the OECD indicators, the efficiency of the process of dispute resolution is another key determinant of the costs and effectiveness of employment protection. For employers, costly, complex or time-consuming legal processes can add significantly to the cost of hiring and especially dismissing workers. But equally, if it is difficult or costly for employees to pursue cases of unfair dismissal, they might be exposed to arbitrary actions from employers. More than half of OECD countries have specialised courts or procedures to handle unfair dismissal cases, making courts more accessible, reducing the time taken to deal with cases and improving satisfaction with outcomes. In addition, alternative dispute resolution mechanisms are often in place. Resolving disputes early (either through pre-court dispute resolution mechanisms or pre-trial conciliation) saves time and money compared with waiting for a court decision. More research is needed concerning the design of effective and efficient conciliation processes, although they are typically popular with both parties to the disputes.

A clear tendency towards reducing the strictness of employment protection is observable over the past decade, mostly focussed on regulations governing individual and collective dismissals. Between 2008 and 2013, in particular, more than one-third of OECD countries undertook some relaxation of these regulations, with reforms concentrated in countries with the most stringent provisions at the beginning of the period. Moreover, the main policy interventions since 2008 have consisted of the limitation of the possibility of reinstatement in the case of unfair dismissal and the extension of the duration of the trial period, which have typically been found in the empirical literature to be those aspects of EPL most affecting gross worker flows, in general, and job-to-job transitions, in particular. By contrast, only limited action has occurred as regards temporary contracts. This is in marked contrast with developments during the 1990s, whereby in many countries hiring on temporary contracts was largely deregulated while maintaining stringent restrictions on regular contracts, with the consequent strengthening of dualism in labour markets where outsiders tend to move from one temporary contract to another while insiders enjoy high protection and greater job stability.

To the extent that the empirical literature has clearly pointed out the negative consequences of dual labour markets, in both efficiency and equity terms, this evidence suggests that policy makers are increasingly aware of the danger of facilitating workforce adjustments only through temporary contracts and governments now strive to find a new balance between flexibility requirements and the need for employment security. There is evidence that, on average, workers benefit from a dynamic labour market, brought about by flexibility-enhancing, but duality-reducing, reforms. This occurs because in the process workers have greater opportunities to find jobs that better match their skills and needs and can more easily progress in their career and pay. However, not all workers gain from these

reforms in the same way. In particular, certain workers are likely to lose their jobs as a consequence of these reforms, thereby experiencing significant income losses. This suggests that for equity and political-economy reasons, governments should consider addressing these individual losses by coupling EPL reforms with adequate unemployment benefits, properly enforced job-search requirements and effective re-employment services.

## Introduction

Market-based economies are characterised by a continuous reallocation of labour resources. New firms are created; existing firms expand, contract or shut down. In the process, large numbers of jobs are created and destroyed. At the same time many individuals enter the market and fill new job vacancies, while others change jobs or leave employment. Job displacement represents a non-negligible proportion of these flows in many countries (see OECD, 2009a). When a firm dismisses a worker, the worker loses income, tenure-related fringe benefits and, potentially, accumulated job-specific skills and experience. If it takes a long time to find another job, the worker may experience depreciation of human capital and the negative health effects associated with prolonged unemployment. Society as a whole also bears some of the costs of labour turnover, as displaced workers are often eligible to unemployment or social assistance payments, job-search assistance and active labour market programmes (see also Chapters 3 and 4). Even when these workers are not eligible for government-funded programmes, their greater financial distress could bring about other social problems, including greater crime rates (e.g. Raphael and Winter-Ebmer, 2001; Machin and Meghir, 2004; Bignon et al., 2011), thereby entailing other social costs. EPL – the rules governing the hiring and firing of workers – can be justified by the need to ensure that firms internalise some of the social costs of labour turnover as well as protecting workers from arbitrary actions by their employers. Nevertheless, by restricting labour turnover, EPL also constrains firms' ability to respond quickly to changes in technology or consumer demand and efficiently reallocate labour resources. Recent research on the labour market impact of employment protection has found that overly strict regulations can reduce job flows, have a negative impact on employment of outsiders, encourage labour market duality and hinder productivity and economic growth (e.g. Martin and Scarpetta, 2012; OECD, 2004, 2007a, 2010).

Striking an adequate equilibrium between the need of protecting employees and efficiently allocating labour is a key priority for policy makers. EPL represents one of the key policy instruments in this respect. From both a research and policy perspective, it is vital to be able to accurately measure EPL in order to determine its labour market impacts, identify best practices and assess reform progress. The OECD has published estimates of the strictness of employment protection in member countries since the early 1990s (Grubb and Wells, 1993; OECD, 1994, 1999, 2004; Venn, 2009). This chapter presents the latest estimates for OECD and selected emerging economies (including all G20 countries). They are the result of a comprehensive effort to update the indicators, based on a more accurate collection methodology and taking due account not only of legislation but also of national or branch-level collective agreements and case law, where relevant. This effort also led to a significant revision of historical time series at the disaggregate level, which is detailed in the chapter. By contrast, a comprehensive re-assessment of the impact of employment protection on labour market outcomes is beyond the scope of this chapter.

The chapter is organised as follows. Section 1 provides a brief survey of theoretical and empirical studies on the effect of EPL on labour market performance. Section 2 presents the latest data on EPL in OECD and G20 countries and discusses cross-country differences.

Section 3 looks at recent and historical trends concerning policy reform in this area. Section 4 examines existing procedures for dispute resolution and their likely impact on the cost and effectiveness of employment protection, even though these dimensions are not included in quantitative OECD indicators at the moment. The chapter concludes with some brief remarks about the need to accompany employment protection reform with adequate employment assistance to workers affected by the reform.

## 1. Employment protection and labour market performance: A brief literature review

### *Predictions of theoretical models*

As suggested by Pissarides (2010) among others, firing restrictions may be rationalised in the presence of financial market imperfections that limit the ability of risk-averse workers to get insurance against dismissal. However, by imposing implicit and explicit costs on the firm's ability to adjust its workforce to optimal levels, inefficient statutory dismissal protection may inhibit efficient job separations and, indirectly, reduce efficient job creation (e.g. Mortensen and Pissarides, 1994). In principle, inefficiencies implied by job security provisions could be offset by wage adjustments, private payments or the design of efficient contracts (Lazear, 1990). However, wage rigidities, financial market imperfections or uncertainty about the future of the firm may prevent these channels from operating. Nickell (1978), Bentolila and Bertola (1990) and Bertola (1990) analyse firms' dynamic behaviour in the presence of positive firing costs, showing that the optimal strategy for firms is to reduce both hiring and firing, with an ambiguous effect on average employment over the business cycle. Regardless, stricter employment protection implies a slower speed of adjustment of employment towards its equilibrium level (Blanchard and Wolfers, 2000). Labour market equilibrium models such as Garibaldi (1998) and Mortensen and Pissarides (1999) come to similar conclusions about job mobility being negatively affected by EPL.

The theoretical analysis of the effect of regulation on fixed-term contracts is more straightforward. If the use of fixed-term contracts is liberalised while maintaining strict EP regulations for open-ended contracts, firms will react by substituting temporary for regular workers, with no long-run effect on employment, due to the smaller cost involved with the termination of the employment relationship at the end of a fixed-term contract (see e.g. Boeri and Garibaldi, 2007; Bentolila et al., 2008). In addition, a large asymmetry between the job protection provisions (and, sometimes, tax wedge) applying to the two types of contracts will reduce the conversion rate of fixed-term contracts into permanent ones, thereby transforming fixed-term contracts into a trap rather than a stepping stone into more stable employment (Boeri, 2011). It has also been argued that in a setting where extensive employment protection for workers with open-ended contracts coexists with lighter regulation for fixed-term contracts, wage pressure and therefore unemployment may increase (Bentolila and Dolado, 1994). The argument behind this is that "insiders" on permanent contracts can raise their wage claims without much risk of job losses as any resulting negative effects on employment will be borne mainly by the "outsiders" who work on fixed-term contracts (often youth and other workers with little work experience or fewer skills). More generally, these observations imply that the effect of regulations on fixed-term contracts cannot be seen in isolation, but it is conditional on the degree of stringency of EP for regular contracts. Countries with highly protective regulations for permanent contracts could see the emergence of a "dual" labour market: in the presence of protected insiders, those under fixed-term contracts (often youths and other disadvantaged groups) will bear

the main burden of employment adjustment (Saint Paul, 1996). This has led many academics to suggest that it would be preferable to replace existing regular and temporary contracts with a unique permanent labour contract, with workers' protections increasing with job tenure (e.g. Blanchard and Tirole, 2003; Dolado et al., 2009). However, some caution is required here insofar as temporary contracts often respond to specific temporary company needs and excessively restricting them might result in an overwhelming burden for employers, while not solving all inequality issues such as those concerning access to credit and housing, notably in the case of youth (see e.g. Lepage-Saucier et al., 2013). In particular, certain types of temporary-work-agency contracts – that is contractual relationships in which workers are hired by an agency and temporarily assigned for work into a user firm – provide workers with a degree of protection which is close to that of regular workers while, at the same time, offering enough flexibility to user firms as regards the performance of temporary tasks outside their main business activities (see Section 2).

Employment protection is also likely to affect significantly productivity and growth performances. On the one hand, to the extent that EPL raises the costs of workforce adjustments and/or distorts the optimal composition of employment between temporary and regular workers, it is likely to have a negative impact on the efficient allocation of labour and, ultimately, on productivity growth. In this context, in a general equilibrium framework, Hopenhayn and Rogerson (1993) show how the distortion induced by firing restrictions pushes firms to use resources less efficiently. As a result, employment levels adjust at a lower speed and productivity is reduced. Bertola (1994) presents a growth model where job security provisions decrease returns to investment and capital accumulation. Samaniego (2006) emphasises the role played by industry composition. In a vintage-capital model firms optimally reduce their workforce as they fall behind the technological frontier. As a consequence, firing restrictions are more costly in industries characterised by rapid technological change such as ICT. Countries where regulations are more stringent will therefore tend to specialise in industries where the rate of technical change is sluggish. Poschke (2009) emphasises the role of firing costs in the selection of the most efficient firms and the exit decision of low-productivity firms. Another channel through which EPL may affect productivity growth is by influencing the risk level that firms are willing to accept. Saint-Paul (2002) argues that high firing costs may induce secondary innovation that improves existing products rather than introducing riskier ones with larger productivity growth potential. Similarly, Bartelsman et al. (2004) suggest that stringent layoff regulations might discourage firms from experimenting with new technologies, characterised by higher mean returns but also higher variance, in order to avoid the risk of paying high firing costs. On the other hand, as argued by Koeniger (2005), layoff regulations could spur productivity-enhancing investments by incumbent firms in order to avoid downsizing. The *net* effect on aggregate innovation and productivity growth is however unclear, as strict regulations may also deter entry of innovative firms. Belot et al. (2007) propose a framework where, by providing additional job security, protection against dismissal may increase incentives for workers to invest in firm-specific human capital, therefore enhancing productivity growth (see also Fella, 2005). However, there is a trade-off between the positive effects induced by this channel and the burden implied by firing costs to be paid upon dismissals. As a consequence, it is possible to identify a strictly positive optimal level of employment protection which may depend on other institutions regulating wage settings and redistributive patterns. Under this framework, the gain from labour market deregulation may be larger for stricter levels of EPL.[1]

### *Empirical evidence*

From an empirical viewpoint, the first generation of studies on the effects of EPL focussed on its potential impact on aggregate employment, identified through cross-country/time-series variation (see OECD, 2006; Howell et al., 2007; and Boeri, 2011, for surveys). Many of these studies found no significant effects of EPL on both aggregate employment and unemployment. Notable exceptions are the seminal paper by Lazear (1990), as well as Scarpetta (1996), Elmeskov et al. (1998) and Di Tella and McCulloch (2005), who find that stricter regulations reduce employment and/or increase unemployment, and Amable et al. (2011), who find that the effect of EPL stringency on joblessness is negative for the average OECD country.[2] More recently, some studies have exploited the fact that certain EPL reforms were targeted on specific groups of workers or firms or were undertaken at different times in different states or regions, thereby generating quasi-natural experiments. For example, there is a growing literature looking at the labour market effects of increasingly frequent exceptions to the employment-at-will doctrine in the United States, which were adopted in different years by courts of different states. These studies typically find small but often significant negative effects of stricter rules on aggregate employment (Miles, 2000; Kugler and Saint-Paul, 2004; Autor et al., 2004, 2006). Similarly, Kugler et al. (2005) exploit the fact that the 1997 Spanish reform of dismissal costs applied only to certain demographic groups to study the effects of contract regulations on employment levels and worker flows. Using data from the Spanish Labour Force Survey, they show that the reduction of dismissal costs increased the employment of young and older men on permanent contracts. In the same vein, Behaghel et al. (2008) exploit a French legislative change in 1992 that reduced employment protection for workers who were hired after age 50. They found that following this change, the transition rate from unemployment to employment increased by at least one-third for workers over 50 compared to workers under 50. However, the implications for overall employment levels are unclear insofar as substitution effects might be at work. Indeed, available empirical evidence typically suggests that, when targeting employment protection on a specific group of workers, legislation usually induces substitution across groups as regards hiring (see e.g. Acemoglu and Angrist, 2001; Fernandez-Kranz and Rodriguez-Planas, 2011).

Standard aggregate cross-country/time-series studies also tend to suggest that employment protection slows down adjustment to economic shocks. Blanchard and Wolfers (2000) and Nickell et al. (2005) find that EPL makes employment adjustment less resilient, particularly as regards negative shocks. Burgess et al. (2000) and Caballero et al. (2004) find that countries with stricter EPL have slower rates of adjustment of productivity to long-run levels. Recent OECD work, identifying the effect of dismissal restrictions on employment through the likely heterogeneity of its effects across industries or firm types, find that these regulations reduce employment resilience to output shocks (e.g. OECD, 2011a; Bassanini, 2012), which helps explaining the limited employment elasticity of the recent recession (Gal et al., 2012; OECD, 2012a).

There is a much larger literature looking at the impact of EPL reforms on job and worker flows. Using Italian firm-level data, Boeri and Jimeno (2005) exploit exemption clauses exonerating small firms from job security provisions within a difference-in-differences approach. Their estimates confirm a significant effect of employment protection on job turnover and job destruction in particular. Similar findings are obtained by Schivardi and Torrini (2008), using an Italian matched employer-employee dataset, and by Kugler and Pica (2008), who exploit an Italian reform that in 1990 increased firing restrictions for small firms. Marinescu (2009) exploits a 1999 British reform that reduced the trial period for new hires

from 24 to 12 months, thereby directly affecting only employees within this window. She finds that the firing hazard for these employees decreased by 26% with respect to that of workers with 2-4 years of tenure. Moreover, the risk of job loss of new hires with less than one year of tenure also decreased by 19%, which is consistent with more selective recruitment practices. Finally, Venn (2013) analyses the impact on hiring of a recent Turkish reform of dismissal costs that applies differently to small and large firms, and reports large negative effects, especially for workers in the formal sector. By contrast, insignificant effects are found by Bauer et al. (2007), who look at changes of small-firm exemption thresholds on worker turnover using German matched employer-employee data. Similarly, Venn (2013) looks at the effect of a recent threshold increase for small firms in Australia and finds no impact on hiring, firing or working hours, possibly because employment protection rules in Australia were already among the least strict in the OECD prior to the reform. The small economic significance of certain specific exemptions perhaps could also explain why exemptions from procedural requirements for dismissal have not been found to have a significant effect on hiring or firing in exempted firms in Portugal (Martins, 2009) and Sweden (von Below and Thoursie, 2010).

A number of cross-country studies have also looked at the impact of dismissal regulations on job and worker flows. In particular, Micco and Pages (2006), OECD (2010), Cingano et al. (2010) and Haltiwanger et al. (2013) use a difference-in-differences estimator on a cross-section of industry-level data for several countries. They all find that the negative relationship between layoff costs and job or worker flows is more negative in industries where reallocation rates are larger, that is where it can be expected that EPL effects are, if any, stronger. Using a similar methodology on a large number of industries and OECD countries, Bassanini and Garnero (2013) show that the more restrictive the regulations, the smaller is the rate of within-industry job-to-job transitions, while no significant effect is detected as regards job-to-job transitions involving an industry change and/or job-to-jobless transitions. They interpret their findings as suggesting that those displaced workers that would not have been displaced in the absence of labour market deregulation tend to find another job relatively quickly. In addition, they find that the extent of reinstatement in the case of unfair dismissal is the most important regulatory determinant of gross worker flows, in general, and within-industry job-to-job transitions, in particular. They also find that the length of the trial period is also a key determinant of hiring although not of separations. There is also evidence that countries with lower EPL have not only higher dismissal rates but also greater rates of voluntary quits (Gielen and Tatsiramos, 2012). By contrast, the impact of EPL on firm growth appears to be, at best, small (Boeri and Jimeno, 2005; Schivardi and Torrini, 2008).

There is less – albeit more consensual – evidence on the effects of regulation for fixed-term contracts, perhaps because its effects are more straightforward.[3] Kahn (2010) uses longitudinal microdata for nine European countries and finds that recent policy reforms making it easier to create fixed-term jobs on average raised the probability that a worker will be on a fixed-term contract. However, he finds no evidence that such reforms increased employment: instead they appear to have encouraged substitution of temporary for permanent work. In a similar vein, several studies focus on major Spanish reforms in the early 1980s that liberalised fixed-term contracts without changing dismissal costs for regular contracts and find, in general, that this led to a very large increase of fixed-term contracts and a reduction in employment on permanent contracts (see e.g. Bentolila et al., 2008; Aguirregabiria and Alonso-Borrego, 2009). Evidence from Spain also suggests that,

when the regulatory gap between permanent and temporary employment is large, transition rates across these two states are low (e.g. Güell and Petrongolo, 2007), thereby confirming the "duality" theory: outsiders tend to move from one temporary contract to another while insiders enjoy high protection and protracted stability. Finally, several papers find that the difference in the cost of adjusting the stock of workers on different types of contract explains both the share of workers on fixed-term contracts and their relative volatility (see, for example, Goux et al., 2001). Overall, this evidence suggests that, *ceteris paribus*, stringent regulation on regular contracts tends to encourage the use of temporary contracts (see e.g. Boeri and Van Ours, 2008; Boeri, 2011), a prediction which is confirmed by the empirical literature (see e.g. OECD, 2004; Pierre and Scarpetta, 2004; Bassanini and Garnero, 2013; Hijzen et al., 2013).

Recent empirical evidence has also clearly indicated that stringent dismissal regulations tend to reduce multi-factor productivity growth (see in particular Autor et al., 2007; Bassanini et al., 2009; Van Schaik and Van de Klundert, 2013). Evidence from several Spanish labour market reforms implemented in the past 20 years also suggests that the gap between restrictions for open-ended and temporary contracts depresses multi-factor productivity growth (Dolado et al., 2012). More generally, cross-country/time-series evidence suggests that countries that implemented partial reforms of EPL, whereby regulations on temporary contracts were weakened while maintaining stringent restrictions on regular contracts, have indeed experienced slower productivity growth (Bassanini et al., 2009). By contrast, the empirical relationship between firing restrictions and innovation appears more complex. For example, Griffith and Macartney (2013) look at patenting behaviour of multinational enterprises and find that, controlling for firm and country effects, these companies tend to locate incremental development activity in countries with stringent dismissal legislation but research geared towards radical innovation in countries with more permissive regulations.

A related issue is how EPL affects wage levels and growth. Leonardi and Pica (2013) analyse the effect of monetary compensation for unfair dismissal on male wages by exploiting an Italian reform that introduced this type of compensation for establishments with less than fifteen employees. They find that the reform had no impact on entry wages, although returns to tenure decreased, consistent with the model of Lazear (1990). By contrast, Van der Wiel (2010) identifies intra-firm effects of employment protection by exploiting a 1999 Dutch reform, which eliminated age-based terms-of-notice rules but implied the coexistence within the same firm of workers under different rules for a transitory period. She finds that those covered by more stringent rules received higher wages. From a cross-country/time-series perspective, OECD (2012b) suggests that reforms relaxing employment protection do boost productivity growth in high-reallocation industries, but the impact on real wages in these industries is limited. However, the productivity effect of relaxing dismissal regulations is by and large reflected in lower growth of output prices, once adjustments for quality are made, thereby suggesting that the benefits of the reform-induced productivity boost are reaped by workers as consumers. This might raise equity concerns because workers in more volatile industries experience greater job insecurity while gains are shared among *all* consumers, including those workers employed in sectors that are less concerned by the reforms. Similarly, OECD (2010) shows that the wage premium to voluntary job changes is smaller where dismissal legislation is more stringent. However, that study also finds evidence that involuntary job

loss is *less* frequent in that case, so that the overall impact of these regulations on wage premia to job changes is ambiguous, in particular if account is taken for the fact that significant earnings losses following displacement are found in the literature.[4]

The empirical relationship between EPL and job insecurity is, however, complex. Postel-Vinay and Saint-Martin (2005) and Clark and Postel-Vinay (2009), using cross-country microdata from the European Community Household Panel and the International Social Survey Programme, find that employed workers are less satisfied with their job security in countries with stricter EPL. By contrast Caroli and Godard (2013), using individual data from 22 countries drawn from the European Working Conditions Survey, estimate that in countries with more constraining dismissal rules workers perceive they have a smaller probability of being displaced, particularly in industries with greater layoff propensity. These two findings can be reconciled by noticing that, on the one hand, stricter dismissal rules reduce dismissal hazards for incumbent workers but, on the other hand, by reducing the probability of hiring after displacement and increasing the risk of long unemployment spells, stricter regulations increase the expected individual welfare loss associated with displacement.

## 2. Comparing employment protection across OECD and key emerging economies

### *The OECD indicators of the strictness of employment protection legislation (EPL)*

The OECD employment protection indicators are compiled from 21 sub-components quantifying, for employers, the costs and procedures involved in dismissing individuals – or groups of employees – or hiring workers on fixed-term or temporary-work-agency contracts, as in force on the 1st of January of each year. By contrast, the effectiveness of legislation in protecting workers might not be well captured by these indicators. Therefore, care must be exerted when not using these indicators as measures of legislation-induced costs for employers making staffing changes. The focus on these costs in the construction of the indicators reflects the dominant approach taken in the empirical and theoretical literature examining the labour market impact of employment protection discussed in the previous section.

Two summary indicators of EPL are key for policy analysis, one concerning the regulations governing individual and collective dismissals of workers with regular, open-ended contracts (EPRC hereafter), and another for the regulation of temporary contracts (EPT). These are made up of four sub-indicators quantifying different aspects of employment protection that, in turn, are decomposed in 21 components:

- *Regulation of individual dismissal of workers with regular contracts* (EPR hereafter): this incorporates three aspects of dismissal protection: i) procedural inconveniences that employers face when starting the dismissal process, such as notification and consultation requirements; ii) notice periods and severance pay, which typically vary by tenure of the employee; and iii) difficulty of dismissal, as determined by the circumstances in which it is possible to dismiss workers, as well as the repercussions for the employer if a dismissal is found to be unfair (such as compensation and reinstatement).
- *Additional restrictions for collective dismissals* (EPC hereafter): most countries impose additional delays, costs or notification procedures when an employer dismisses a large number of workers at one time. This measure includes only *additional* costs which go

beyond those applicable for individual dismissal. It does not reflect the overall strictness of regulation of collective dismissals, which is the sum of costs for individual dismissals and any additional cost of collective dismissals.

- *Regulation of standard fixed-term contracts* (EPFTC hereafter): this quantifies the regulations governing hiring of workers on fixed-term contracts. It concerns the types of work for which these contracts are allowed and their renewal and cumulative duration.
- *Regulation of temporary work agency employment* (EPTWA hereafter): this quantifies the regulation for temporary-work-agency employment with respect to the types of jobs for which these contracts are allowed and the renewal and cumulative duration of assignments at the user firm. This measure also includes some of the regulations governing the establishment and operation of temporary work agencies and requirements for agency workers to receive the same pay and/or working conditions as equivalent workers in the user firm, which can increase the cost of using temporary agency workers relative to hiring workers on other types of contracts.

The OECD Secretariat also used to compile an overall summary index of the strictness of EPL, which was widely used in first-generation macroeconomic studies of institutions and employment/unemployment (see the previous section). This indicator was obtained as a weighted average of EPRC and EPT, with weights 7/12 and 5/12. However, as discussed in the previous section, increasing the flexibility of the labour market by relaxing firing regulations for regular contracts or hiring restrictions on fixed-term contracts is not neutral. In fact, different reforms tend to have significantly different effects, and a few of them appears more desirable than others. For this reason, this chapter does not focus on this summary indicator.

While most of the sub-components used to calculate the indicators refer to national and/or regional legislation, employment protection provided through collective bargaining has been incorporated, in cases where agreements provide widespread additional employment protection and collective bargaining takes place at the industry, regional or national levels.[5] Similarly, court rulings play an important role in the indicators, notably as regards the compensation payable if a dismissal is found to be unfair by a court and the likelihood of reinstatement under the same circumstances, and the likelihood that a court will convert temporary contracts to open-ended contracts after a number of renewals. However, court rulings play an important role also in common law and in Nordic countries, as well as in cases in which the letter of the law is traditionally interpreted in a more restrictive way by courts.[6]

A key novelty of this update is that the data-collection methodology has been modified. The new methodology relies more intensively on a direct reading and interpretation of legislation, collective bargaining agreements, and case law under the responsibility of the OECD Secretariat. Moreover, collective agreements and case law have been more systematically included, and a greater effort has been made to ensure that the same scoring criteria are applied to all countries (see Box 2.1 for details). The implementation of the new data-collection and harmonisation procedures led to a number of revisions in historical data for the detailed components. Finally, three new countries have been added to the database (Argentina, Latvia and Saudi Arabia), which now covers all G20 countries among others.[7]

### Box 2.1. **Specific methodological features of the 2013 update round and the revision of published indicators**

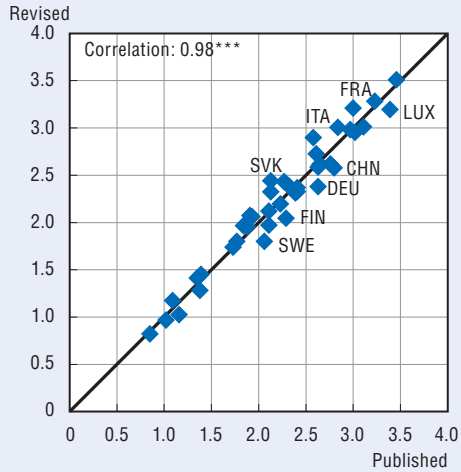
In previous updates, the key information used for the construction of the OECD EPL database and related indicators was collected from a detailed questionnaire completed by government authorities of OECD member and accession countries. In these questionnaires the latest available information from previous updates was typically verified and updated by government officials. This information was then integrated through national and international secondary sources (see, for example, Grubb and Wells, 1993, Annex 1; OECD, 1999, Annex 2.A). Labour legislation was used as the main source of information only in the case of the few non-member countries (see Venn, 2009, Section 2) or in specific cases whose interpretation was particularly difficult (see OECD, 2004).

The increasing use of the 21 disaggregate indicators for policy advice (see for example OECD, 2007b, 2009b, 2011b, 2012c, 2012d, and recent OECD country surveys), suggests that this method of collection, while parsimonious in resource use on the part of the OECD Secretariat, cannot guarantee an adequate degree of cross-country comparability of the indicators, on which policy advice can be meaningfully based. Moreover, until this update, collective agreements and case law were only occasionally incorporated into the database. To minimise these problems for the latest update, the OECD Secretariat undertook a systematic effort of verification and comparison of country responses with prevailing legislation, national and branch collective agreements and relevant court rulings. This effort, conducted in co-operation with government authorities of member countries, led to a substantial revision of disaggregate indicators (on average, in the latest previously available year, 23% of these indicators has been modified, see Annex 2.A1). Further actions were also taken to ensure the consistency of disaggregate time series over time. However, in most cases, the revisions offset each other as regards their impact on the most aggregate indicators. For example, for the latest published year (2009 for France and Portugal, 2008 for all other countries), the revision to the value of the overall summary EPL indicator is greater than 0.2 points (that is less than 10% of the OECD average) in only ten countries (see the figure below) with a maximum revision of 0.32 points. Similar results emerge as regards the synthetic indicator of employment protection for regular workers, including additional provisions for collective dismissals (EPRC), and the synthetic indicator on regulation for temporary workers (EPT). This is reassuring as regards the empirical evidence, since only synthetic indicators are typically used in macro-econometric analyses (see Section 1), with the sole partial exception of Bassanini and Garnero (2013).

A few additional harmonisation actions were systematically undertaken in order to ensure a consistent scoring of country components. The most notable among these are the following. First, when regulations differ between large and small firms, scores are normally based on regulations prevailing for large firms (with the partial exception of the definition of collective dismissal, where the lowest threshold is taken into account), including in countries with a large share of small firms and significant differences in dismissal restrictions by firm size (such as Australia, Italy, Portugal and Turkey). The rationale behind this choice is that firm size is *endogenous* to regulations. Applying consistently this scoring rule to all countries led to a number of revisions of previously published figures, notably in Spain. Second, normally only regulations concerning dismissal for redundancy or personal reasons but without fault are considered for the computation of the scores. This choice is justified by the fact that procedures for dismissal for fault are usually faster. However, this standard was not always applied in the previous updates. Correcting this lack of harmonisation has led to several revisions of scores in many countries. Third, whenever employers can avoid enforcement of reinstatement orders by simply paying compensation or can choose between compensation and reinstatement, a score equal to 0 is normally attributed to the indicator measuring the extent of reinstatement. The reason is that, in this case, the possibility of reinstatement does not represent an additional constraint for

Box 2.1. **Specific methodological features of the 2013 update round and the revision of published indicators** *(cont.)*

**Impact of the revision of disaggregate indicators on the OECD summary EPL indicator for 2008**




*Note:* Only countries with a revision of the score larger than 0.2 points are identified. "Published" refers to scores as published in Venn (2009). The summary indicator is obtained as a weighted average of EPRC and EPT, with weights 7/12 and 5/12.The data refer to 2009 in the case of France and Portugal.
*Source: OECD Employment Protection Database*, 2013 update; and Venn, D. (2009).

StatLink *http://dx.doi.org/10.1787/888932852884*

employers but rather a larger menu of choices. Applying uniformly this criterion across countries resulted in significant revisions in, notably, Luxembourg and Sweden. Fourth, in most countries, the maximum time period for filing an unfair dismissal complaint is measured from the effective date of dismissal. In some countries, however, previously published indicators took the date of notification as the start of this period. Applying uniformly the same standard to all countries resulted in several downward revisions in the corresponding indicator (notably in Austria, Hungary, Portugal, Norway, Slovenia, Switzerland and Turkey). Fifth, the scores of the indicators concerning limitations on renewals or the total duration of temporary-work-agency (TWA) employment were previously based on assignments at user firms in about two-thirds of the countries and on contracts between the worker and the agency in the remaining countries. Revised indicators are now consistently based on assignments only. The justification is that limitations on assignments are more constraining for user firms. Sixth, when TWAs are illegal, indicators of administrative procedures and equal treatment take maximum scores rather than being missing. This is done to improve cross-country comparability of the synthetic indicator concerning TWA employment, and resulted in significant revisions in a couple of countries (Mexico and Turkey). Seventh, individual delays and individual notice periods are normally deducted in the computation of the score for additional delays in the case of collective dismissals, when the latter do not add up to individual delays but run simultaneously or substitute for individual notice periods. Applying rigorously this principle resulted in a number of significant revisions (notably in Sweden, where the score fell from 6 to 1). Finally, and perhaps more important, the revised scores take much more systematically into account national or branch collective agreements and, where relevant, court rulings.

*Source: OECD Employment Protection Database*, 2013 update; and Venn, D. (2009), "Legislation, Collective Bargaining and Enforcement: Updating the OECD Employment Protection Indicators", *OECD Social, Employment and Migration Working Papers*, No. 89, OECD Publishing, Paris, *http://dx.doi.org/10.1787/223334316804*.

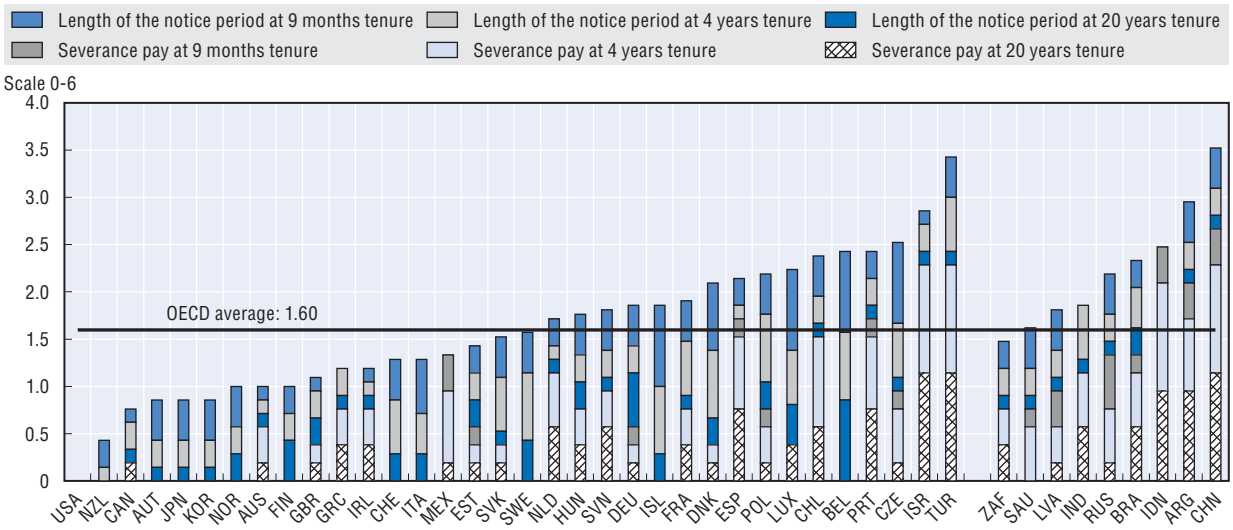
### *Employment protection for regular workers in 2013*

#### *Advance notice and severance pay*

The first attempts to measure employment protection legislation focussed on mandatory periods of advance notice and severance pay in the case of justified/fair dismissal with no fault. This is due to the fact that, from a quantitative point of view, they can be easily measured. The seminal work of Lazear (1990) used severance pay and notice periods at ten years of job tenure. However, the tenure profile of severance pay and notice periods also matters, with progressive profiles typically considered as providing better incentives for workers' investments in their job and having a less negative impact on firm experimentation and hiring (e.g. Blanchard and Tirole, 2003; Pries and Rogerson, 2005; Andrés et al., 2009; Bentolila et al., 2012; Boeri et al., 2012). For this reason, OECD (1993) reported minimum and maximum severance pay and notice periods, expressed in number of months of the last wage. Since Grubb and Wells (1993), OECD indicators have been based on mandatory payments at three levels of job tenure (9 months, 4 years and 20 years), which since OECD (1999) are then mapped into discrete indicators with scores varying between 0 and 6 from the least costly to the most costly regulation for employers and averaged using approximately homogeneous weights. The scoring algorithm used to map values into indicators is somewhat arbitrary, but was implemented as a reasonable compromise between allowing the score to rise proportionally with the underlying measure (e.g. with months of severance pay) and respecting natural break points in the data (i.e. clusters in country practices prevailing in the 1990s).[8] Similar considerations apply to all other sub-indicators discussed in this section.

Figure 2.1 presents OECD indicators for severance pay and notice periods in the case of no-fault individual dismissal for 2013.[9] Many indicators in the figure are composite values of different situations, e.g. for blue-collar and white-collar workers, or for dismissals for

Figure 2.1. **Protection of permanent workers against individual dismissal: Notice and severance pay for no-fault individual dismissal**




*Note:* Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of different subcomponents to the indicator for mandatory notice periods and severance pay. The height of the bar represents the value of the indicator for notice and severance pay.

*Source: OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

StatLink http://dx.doi.org/10.1787/888932852637

personal reasons and for redundancy. Where there are differences between these categories, notice periods and severance payments tend to be more costly for employers in the case of white-collars and for redundancies. All OECD countries, apart from Mexico and the United States, enforce minimum notice periods, but only two-thirds provide for ordinary severance pay for employees with long job tenure. With few exceptions, there is also a tendency for countries with high severance-pay requirements to mandate short or no notice periods, and vice versa, with the notable exception of the United States.[10]

Countries that have overall stringent regulations on legislated severance pay and notice periods are typically characterised either by much higher than average legislated severance pay for medium and long-service employees (Chile, Israel, Portugal and Turkey, as well as, among non-OECD countries, Argentina, China and Indonesia) or by long notice periods, particularly at low job tenure (Belgium and the Czech Republic).[11] In particular, in Israel and Turkey minimum mandatory severance payments are one month of wage per year of service, thereby resulting in 20 months at 20 years,[12] against an OECD average of about 4.2 months (6.2 months if countries with no mandatory payments are excluded).

One needs to be somewhat cautious, however, in interpreting these patterns. In the United States, employers firing workers find their future contribution to the unemployment-insurance fund increased through a mechanism of experience-rating (see e.g. Fath and Fuest, 2005), which might increase employers' caution and selectivity in hiring and reduce their propensity to dismiss their employees even if no severance payment is made to the workers concerned. In a number of countries (such as Austria, Chile, Norway, Sweden and Brazil), legislation or collective agreements provide for fee-based insurance schemes or individual saving accounts, with employers' contributions payable as a percentage of payroll and which can be accessed by workers upon dismissal.[13] In a similar way, in Ireland, employers are reimbursed 15% of their severance costs by a redundancy fund financed by ordinary employer and employee social security contributions. These schemes have the advantage of inducing no disincentives for dismissals or voluntary separations, while insuring workers against dismissal. For these reasons, they can be considered best practices in this area. Consistently, the payment the worker receives from these funds upon separation is not taken into account in the OECD indicators. In other countries (notably Italy, Korea, Indonesia and, to a limited extent, Switzerland and Saudi Arabia), there is a tenure-dependent separation indemnity, which is paid by the employer upon separation whatever the reason. Again, these provisions are not included in OECD indicators insofar as they correspond more clearly to a deferred wage which will be paid with certainty at the end of the employment relationship. In expected terms, therefore, these provisions have the same impact on employers' hiring decisions as higher social security contributions. Moreover, to the extent that future payments are not set aside every month in a separate fund but remain on the balance sheet of employers, these amounts represent a forced loan from workers to their employer, often at advantageous conditions for the latter. For the same reason, however, separations of long-service employees can result in a significant short-term reduction in cash flow at the time of separation and this might somewhat distort the distribution of dismissals across workers with different tenure.

### *Procedural inconvenience*

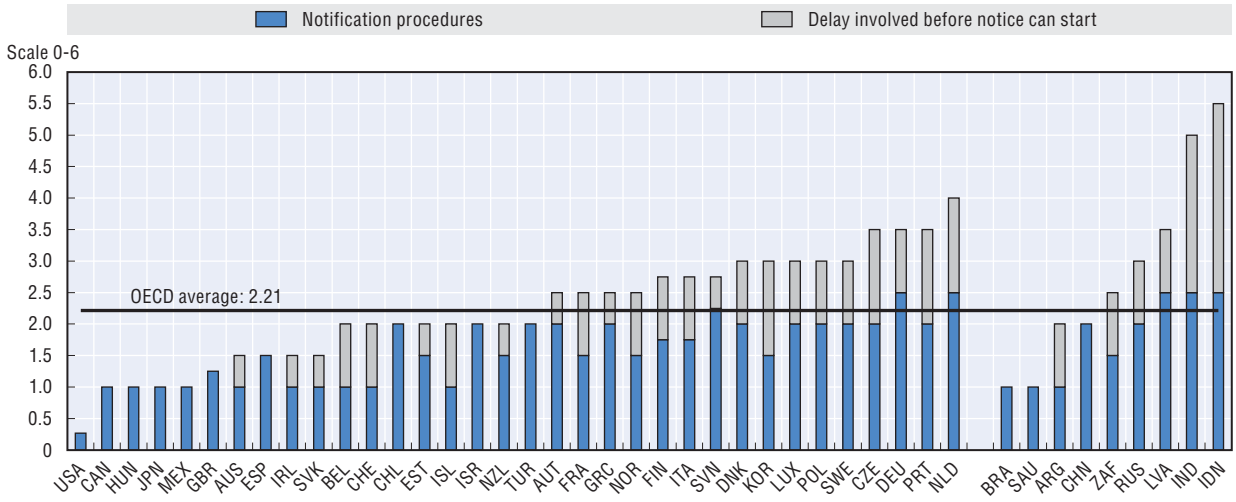
Advance notice and severance pay do not represent the only possible cost for employers, even when dismissal is based on fair grounds according to statutory or

customary law. In most countries, specific procedures must be followed. These procedures have been typically justified with by need to give workers the means of defending themselves against wrongful dismissals. However, they can sometimes be complex and constraining and the non-respect of the procedures must be established and sanctioned by courts. As a result, they might lead to long, costly and uncertain judicial battles, whose results often depend on the subjective appraisal of the randomly assigned judge (see e.g. Fischman, 2011a, 2011b; Ichino and Pinotti, 2012).

In almost all countries, notification of individual dismissal to the worker must be in writing, often reporting the reasons for dismissal.[14] The only partial exception to this pattern is represented by the United States, where in most states there is no specific notification requirement, except if differently provided by employment contracts and firm-level collective agreements. At the opposite side of the spectrum, in India, legislation stipulates that, for establishments with 100 or more workers, the employer must also obtain permission from a government authority before dismissals can take place (except in the case of disciplinary action). In Germany, Indonesia and, in the case of unionised workers only, Slovenia and Latvia, if the works council or union representatives are opposed to the dismissal, the latter cannot be effective without authorisation of the relevant authority or a court judgement. In the Netherlands, dismissal law is governed by a "dual system". On the one hand, an employer can dismiss a worker without severance payments, provided that the employer has received prior permission from a public administrative body – the Employee Insurance Agency (UWV Werkbedrijf) – to do so. On the other hand, since the 1970s, an employer can file a request to a sub-district court to dissolve an employment contract under the provisions of the Civil Code (referring to "compelling grounds" or "changed circumstances"). This is more expensive in terms of compensation but is shorter and administratively less onerous. Finally, in a number of other countries, it is compulsory to notify dismissals to the relevant employees' representatives or works councils and/or the public employment service or other government authority.

These procedures might involve substantial delays before notice can effectively start. In addition, in a number of countries good-faith negotiations with unions are required before a final decision on dismissal is taken, particularly in the case of redundancy, sometimes even in the case of individual dismissal. Moreover, in a few countries, notice can start only at fixed dates. For example in the Czech Republic, Iceland, Norway, Switzerland and, for white collars only, Denmark, notice can start only at the beginning (or end) of the month, thereby adding, on average, 15 days to standard notice periods. Delays before the start of individual notice, however, vary widely across countries (Figure 2.2). In India and Indonesia, the countries where they are the longest, two months or more are required to obtain the required administrative authorisation or preliminary court judgements. These delays are much shorter in other countries, being estimated to be close to three/four weeks in only four countries (the Czech Republic, Korea, the Netherlands and Portugal) and shorter in the others.[15] At the opposite side of the range, notification procedures do not entail significantly longer delays, beyond ordinary advance notice, in at least ten countries. Overall, procedural inconveniences appear particularly cumbersome in the Czech Republic, Germany, the Netherlands and Portugal as well as, among non-OECD economies, India, Indonesia and Latvia (Figure 2.2). By contrast, they appear the lightest in Canada, Japan, Hungary, Mexico, the United Kingdom and the United States, as well as Brazil and Saudi Arabia.

Figure 2.2. **Protection of permanent workers against individual dismissal: Procedural inconvenience**




*Note:* Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of different subcomponents to the indicator for procedural inconvenience. The height of the bar represents the value of the indicator for procedural inconvenience.

*Source: OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

StatLink *http://dx.doi.org/10.1787/888932852656*

### *Difficulty of dismissal*

Almost all OECD and G20 countries have legislated remedies for unfair individual dismissals.[16] However, the way statutory or customary law defines fair or unfair dismissal differs markedly across countries. Stricter definitions may greatly restrict the operation of firms and reduce the predictability of dismissal costs, thereby creating strong disincentives to hiring and firing. For example, in countries such as Chile or Indonesia, dismissal for bad individual performance or unsuitability is unfair for ordinary employees, except in the case of serious fault. In Mexico and the Russian Federation, dismissal for unsuitability is possible but severely restricted to permanent physical or mental disability.[17] In Spain, worker capability is sufficient ground for dismissal only in cases of unfitness or lack of adaptation to technological changes. In Norway, the law allows dismissals for personal motives, but courts have restricted these reasons mainly to cases of material breach of the employment contract (disloyalty, persistent absenteeism, etc.). In the case of economic redundancy, dismissals are often considered unfair if the redundant worker could have been retained on another job within the same company in many countries (e.g. Australia, Estonia, France, Germany, Italy, Norway and Sweden). By contrast, worker capability and redundancy are fair grounds for dismissal with no or limited substantive additional conditions in almost one half of OECD countries. Moreover, in a number of countries, and notably most common-law countries, courts are inclined to consider redundancies as fair provided that they do not hide disguised personal reasons and procedural requirements are respected.

In a number of countries, if the dismissal is ruled to be unfair by the court, the judge can order that the worker be reinstated. In addition, the reinstated employee is typically entitled to wage arrears and social security contributions must be paid as if he/she had never been dismissed. This is likely to create strong disincentives not only to firing, but also to hiring and firm growth (see the previous section). Indeed, Bassanini and Garnero

(2013) show that one half of the cross-country variation in labour reallocation can be accounted for by the likelihood of reinstatement, with similar impacts on both hiring and separations. If dismissal is recognised as unfair, reinstatement is almost always granted or offered to the worker in Austria, the Czech Republic, Korea and, except in the case of procedural irregularity, Portugal. Moreover, reinstatement orders, in the case of unfair dismissal, loom large in non-OECD countries (such as China, India, Indonesia, Latvia and the Russian Federation). By contrast, except in the case of dismissal based on explicitly prohibited grounds, such as discrimination, reinstatement is never offered to workers – or employers can choose compensation instead of reinstatement – in Belgium, Estonia, France, Luxembourg, Spain, Switzerland, Turkey and the Nordic countries, with the exceptions of Denmark and Norway.

Adequately high and predictable compensation orders in the case of unfair dismissal – over and above the amounts due for notice periods and as ordinary severance pay – are probably as effective in protecting workers against arbitrary behaviours as reinstatement orders.At the same time, a preference of courts for compensation in their choice of remedies guarantees a minimum certainty to employers about potential costs.[18] Among OECD and key emerging economies, the highest typical compensation (in terms of months of former pay) for unfair dismissal of an employee with 20 years of job tenure can be found in Sweden (32 months), Italy (estimated at 21 months), China (20 months), Portugal (17.5 months) and France (16 months).[19] These amounts appear particularly high if compared with the OECD average, which is close to six months. By contrast, very low compensation, beyond ordinary severance pay and/or advance notice, is typically ordered in Estonia and Poland as well as Brazil and Saudi Arabia.

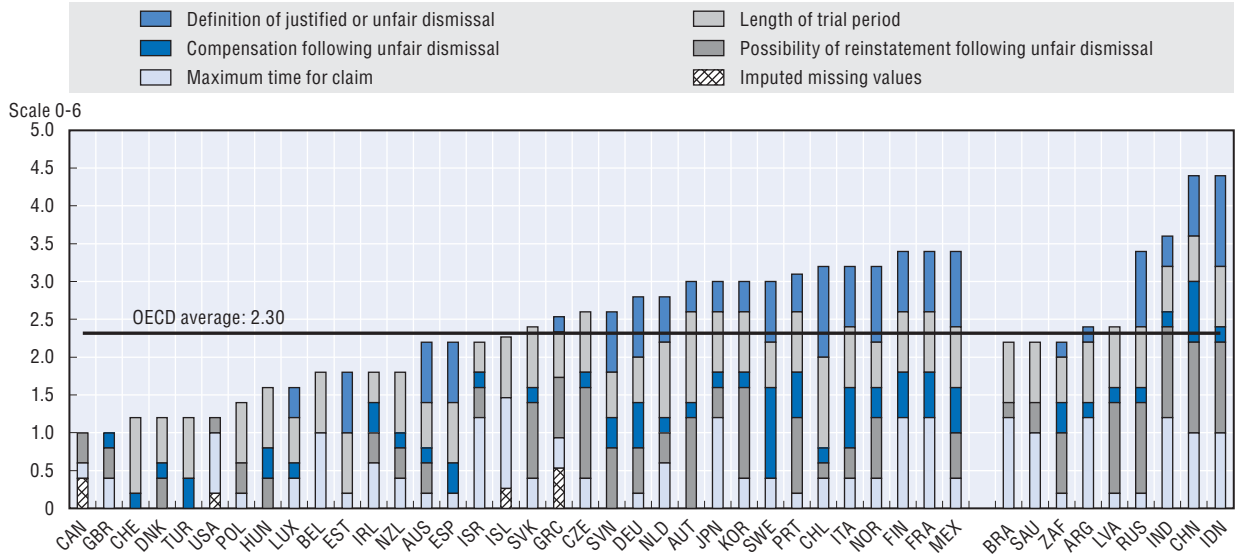
Essentially all countries, however, grant a period of exemption from these rules at the beginning of the employment relationship. Theoretical and empirical work (e.g. Pries and Rogerson, 2005; Marinescu, 2009) has shown that the longer these exemptions, the greater is the propensity of firms to hire and experiment with new workers and activities. Statutory law, collective agreements and/or customary norms typically define the maximum or standard duration of these exemptions for probationary purposes if specified in the employment contract. Often these limits vary between different groups of workers with usually longer probationary periods allowed for high-skilled workers.[20] In countries where small firms are not generally exempted from EPL provisions (see above), probationary periods may vary widely according to firm size (e.g. in Australia and Spain). The average length of trial periods is about five months in OECD countries. At the top of the range, claims under unfair dismissal legislation are not normally possible until the worker's job tenure has reached 24 months in the United Kingdom. At the other end of the distribution, no exemption period from unfair dismissal rules is granted in Chile, while in Austria probationary periods are usually as short as one month.[21]

Finally, the legal prescription for unfair dismissal claims is another key element that affects the uncertainty of dismissal costs. The median maximum time for lodging a claim is two months from the effective date of dismissal in OECD countries. However, in a number of countries (Austria, Denmark, Hungary, Slovenia, Switzerland and Turkey) the maximum time period for lodging a complaint is so short that, in practice, claims must be filed immediately after dismissal notification and before dismissal takes effect. At the other extreme, legal prescription is typically longer than one year in Finland, Iceland, Israel, Japan and, in the case of dismissal for personal reasons, France. By contrast, in the United States statutes of limitations vary widely by state and according to the act that is

violated (from one month to several years). More generally, the maximum time for a claim tends to be shorter the more radical are the remedies that are ordered when dismissal is found unfair by a court.[22]

These different cost components related to the protection against wrongful individual dismissals are summarised in the indicator of difficulty of dismissal (Figure 2.3).[23] Beyond procedural requirements and ordinary costs, as measured by indicators presented in Figures 2.1 and 2.2, individual dismissals appear easiest in Canada, Denmark, Poland, Switzerland, Turkey, the United Kingdom and the United States, where the indicator is at least one standard deviation below the OECD average.[24] By contrast, they appear more difficult or uncertain in Chile, Finland, France, Italy, Mexico, Norway and Portugal. Among other G20 countries, China, India, Indonesia and the Russian Federation stand out as countries where dismissal is particularly difficult.[25]

Figure 2.3. **Protection of permanent workers against individual dismissal: Difficulty of dismissal**




*Note:* Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of different subcomponents to the indicator for difficulty of dismissal. The height of the bar represents the value of the indicator for difficulty of dismissal. For the sole purpose of calculating the indicator of difficulty of dismissal, missing values of specific subcomponents are set equal to the average of other non-missing subcomponents for the same country, excluding the maximum time for claim.
*Source:* *OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

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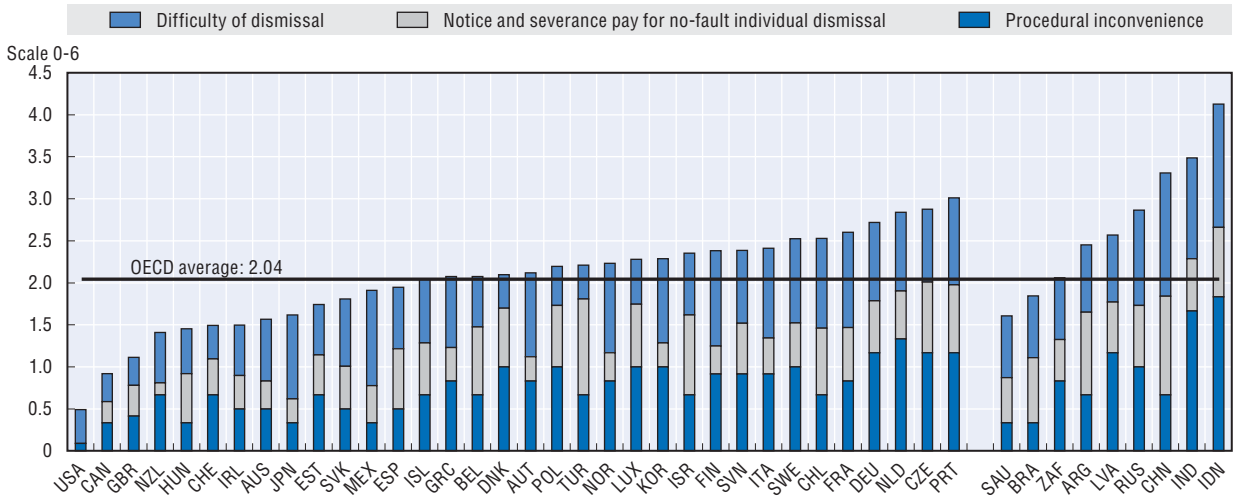
Procedural inconvenience, notice and severance pay as well as difficulty of dismissal are summarised in the indicator of the strictness of employment protection of workers with regular contracts against individual dismissal (EPR).[26] Not surprisingly, the United States stands out as the least regulated country in this area (Figure 2.4). Most other English-speaking common-law countries (Canada, New Zealand and the United Kingdom) as well as Hungary also appear to have unrestrictive regulations for individual dismissals. By contrast, with an EPR indicator that is at least one standard deviation above the OECD average, the Czech Republic, France, Germany, the Netherlands and Portugal have regulations for individual dismissals that are far stricter than in the average country.[27] Similar considerations apply for many non-OECD countries selected for this study, including China, India, Indonesia and the Russian Federation.

Figure 2.4. **Protection of permanent workers against individual dismissal**




*Note:* Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of different subcomponents to the indicator for employment protection for regular workers against individual dismissal (EPR). The height of the bar represents the value of the EPR indicator.

*Source: OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

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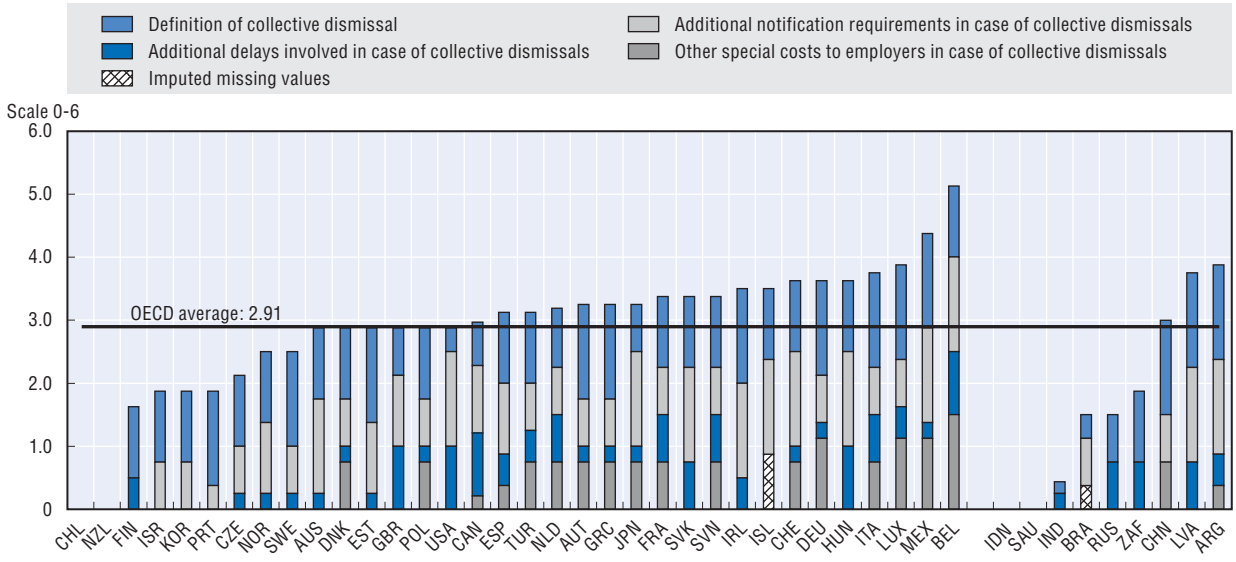
Interestingly, all three components are positively correlated, suggesting that countries with more stringent regulation tend to offer their workers greater protection in all areas (Figure 2.4). However, the correlation between the indicators of difficulty of dismissals and notice/severance pay is insignificant and becomes even negative if the three outliers, China, Indonesia and the United States, are excluded from the sample. This suggests that the large majority of countries tend to choose among two alternative protection models: one where the definition of wrongful dismissal is very narrow but workers are compensated for job loss no matter the reason; and another one in which ordinary compensation is low or zero, but the definition of unfair dismissal is wide and the compensation for unfair dismissal is high.

### *Additional provisions for collective dismissals*

Most countries, nevertheless, grant additional protection in the case of collective redundancies (Figure 2.5). Exceptions are New Zealand as well as a number of emerging economies (Chile, Indonesia, Saudi Arabia and, except in the case of plant closure, India) where there are no specific regulations for collective dismissals. When collective redundancy is defined as the dismissal of few workers in a relatively long period of time, these procedures may add a significant burden to the expected cost of dismissal. For example, in Mexico, the Federal Labour Law does not precisely define collective dismissals, so that additional restrictions tend to apply to any redundancy originating from a permanent reduction of the level of production of a business unit, at least if it involves a minimum of two workers. More frequently, however, different definitions exist depending on the size of the firm or business unit. In Portugal, for example, specific provisions apply from the dismissal of two employees in the case of very small companies (employing up to nine employees), and of five employees for larger firms, over a period of 90 days.[28] In no other country, however, is a collective dismissal defined at less than five employees over a specified period. Moreover, firms below a certain size threshold are typically exempted from requirements on collective dismissals. For example, in Italy, firms with at least 15 employees, terminating the contract

Figure 2.5. **Additional provisions for collective dismissals**




*Note:* Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of different subcomponents to the indicator for additional provisions for collective dismissals (EPC). The height of the bar represents the value of the EPC indicator. This indicator quantifies only additional restrictions, over and above those for individual dismissals. For the sole purpose of calculating the EPC indicator, missing values of specific subcomponents are set equal to the average of other non-missing subcomponents for the same country.

*Source:* *OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

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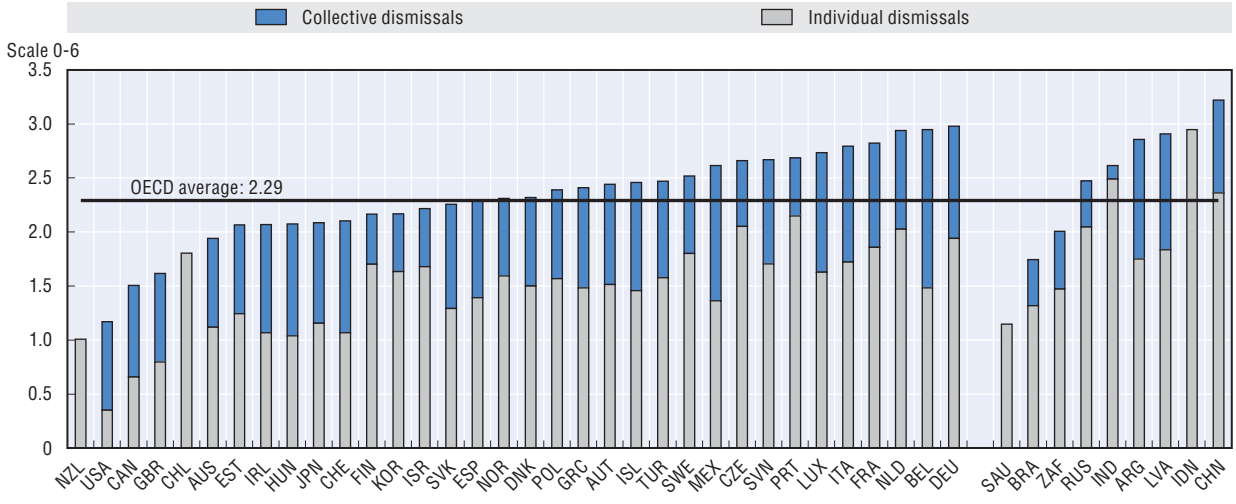
of at least five workers in the same location within 120 days, are subject to specific procedures for collective dismissal,[29] while other companies are exempted. In most countries, however, a shorter, and therefore less-constraining, reference period is typically used in calculating the threshold of termination involving collective dismissal procedures (one month being a typical reference period).[30] Finally, at the other end of the spectrum, in the United States, collective dismissal can be defined – quite unrestrictively – as the dismissal of 100 or more full-time workers within a one-month period – except in the case of plant closure or workforce reduction larger than one-third of the establishment's size, in which case the threshold is lowered to 50 full-time workers.

Typically, provisions for collective dismissals require notification to third parties (most often workers' representatives and public employment services) and/or good-faith negotiations with trade unions, even when this is not required for individual dismissals. For example both additional provisions are found in Australia, Belgium, Hungary, Iceland, Ireland, Japan, Mexico, Sweden, Switzerland, the United States and in a number of Canadian jurisdictions, even though no notification to third parties is required in the case of individual redundancy. Often, these notification/consultation requirements involve additional delays before notice can be served, in particular to allow reasonable time for negotiations. For example, these extra delays can be longer than two months for French firms with more than 50 employees if their works councils make the request of being assisted by an accounting expert in the negotiations.[31] Moreover, the legislation of many countries requires longer notice periods in the case of collective redundancies and/or imposes minimum notice when this requirement is not prescribed for individual dismissals. This is notably the case in the United States, where a 60-day notice period is set by legislation for all involved workers, with the exception of layoffs due to risk of

bankruptcy, unforeseen circumstances, or ending of a temporary business activity. Moreover, about one-third of OECD countries require the establishment of a *social plan*, detailing measures of reemployment, retraining, outplacement and, in some cases, extra monetary compensation for affected workers. And in those countries where there is no obligation of establishing a social plan, the law may require additional severance pay (e.g. in Italy).

These different provisions are summarised in the indicator of additional restrictions for collective dismissals (EPC). As shown in Figure 2.6, additional regulations tend to be more restrictive in countries where constraints for individual dismissals are lighter, in particular among countries that have specific provisions for collective redundancies. Indeed, the correlation coefficient between the EPR and EPC indicators is -0.27. This negative correlation is in part explained by the fact that the EPC indicator only captures *additional* restrictions, while there seems to be greater consensus among policy makers that mass dismissals have a particularly negative effect on social well-being and stricter protection is needed, so that the cross-country variation of the stringency of regulation on collective redundancies is smaller than that of individual dismissals. Nevertheless, this consideration does not fully explain the observed patterns. Indeed, if the indicators for procedural inconvenience, notice and severance pay and difficulty of dismissal are separately correlated with the EPC indicator, difficulty of dismissal is negatively correlated with EPC, despite the fact that the method of construction of the indicators has no bearing on the relationship between these two variables.[32] Since the additional protection against collective redundancies that is measured by the EPC indicator is granted no matter whether terminations are wrongful or fair, this result provides an even more striking example of the fact that countries tend to choose alternative models of employment protection (see above).

Figure 2.6. **Protection of permanent workers against individual and collective dismissal**




*Note:* Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of employment protection for regular workers against individual dismissal (EPR) and additional provisions for collective dismissal (EPRC) to the indicator of employment protection for regular workers against individual and collective dismissal (EPRC). The height of the bar represents the value of the EPRC indicator.

*Source:* *OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

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Considering both individual and collective dismissals, Germany, Belgium and the Netherlands appear to be the countries with the most stringent restrictions within the OECD. The indicator of employment protection for regular workers against individual and collective dismissal (EPRC) is at least one standard deviation above the OECD average also in France and Italy, despite the recent reforms in the latter country (see below). China is by and large the country with the tightest regulations among those considered, while the EPRC indicator is also far above the OECD average in Argentina, Indonesia and Latvia. Interestingly, at the bottom of the distribution, New Zealand and Saudi Arabia appear to have laxer regulations than the United States, even though the relative ranking of these three countries is heavily dependent on the relative weight given to EPC with respect to EPR in the aggregation.[33] Canada, the United Kingdom and Brazil also have relatively light regulations for individual and collective dismissals of regular workers.

### *Regulation on temporary contracts in 2013*

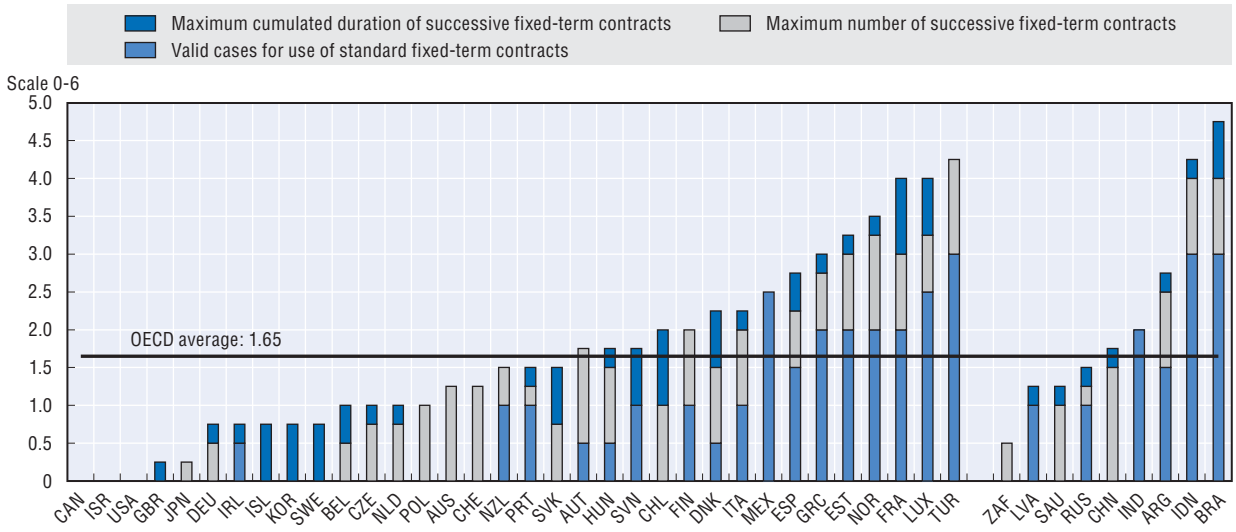
Employees on regular open-ended contracts are far from representing the totality of dependent employment. In 2011, 12% of OECD employees were on fixed-term contracts, but in certain countries their share was as large as 27% (in Poland). These figures are much higher among youth. One quarter of employees aged between 15 and 24 years is on a fixed-term contract in the OECD area. But temporary employees represented more than one half of dependent employment among youth in at least eight countries in 2011 and up to 75% in Slovenia (see the Statistical annex of this publication). Moreover, in countries with rigid regulations on permanent contracts, hiring of temporary workers and termination of fixed-term contracts represent an overwhelming share of gross worker flows. For example, in France, 78% of hires and 71% of separations in 2011 were due to the start or end of a fixed-term contract, and these figures appear stable across age classes (Paraire, 2012). Collecting standardised information on regulations concerning different types of temporary contracts is, however, complex due to the wide variety of atypical contracts that exist in OECD countries. For this reason, OECD indicators cover, at the moment, only certain aspects of regulations concerning standard fixed-term contracts (FTCs hereafter) and temporary work agencies (TWAs hereafter).[34]

### *Standard fixed-term contracts*

In a limited number of OECD countries, although FTCs are permitted, their use must be rigorously justified on the basis of an "objective" or "material situation", for example to perform a task which itself is of fixed duration, such as seasonal work, or in response to a temporary increase of workload. This is the case in Turkey – as well as Brazil and Indonesia among other G20 countries – and, with limited derogations, in Estonia, France, Greece, Luxembourg, Mexico and Norway (Figure 2.7). In contrast, in a number of other countries, derogations concerning specific employer and employee needs are typically possible. And in more than one-half of OECD countries, no justification is required to hire a worker on a FTC, at least for the first contract.

It should be stressed, however, that the letter of legislation, collective agreements and court rulings does not often correspond to the real difficulty for employers to hire workers on FTCs. In fact, *enforcement* issues are not taken into account in this chapter and they might be particularly problematic as regards hiring regulations. This is because enforcement of EPL is mainly dependent on individuals who consider themselves as victims and lodge a complaint. While potential plaintiffs are well identified and able to react in the case of

Figure 2.7. **Regulation on standard fixed-term contracts**




*Note:* Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of different subcomponents to the indicator of regulation for standard fixed-term contracts (EPFTC). A standard fixed-term contract is defined here as a generic employment contract with a precisely specified end date (in the form of day, month and year at which the employment relationship is set to end, if the contract is not renewed). The height of the bar represents the value of the EPFTC indicator.
*Source:* *OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

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dismissals, it is more difficult for individuals to assess whether they have been victims of breaches of legislation restricting hiring under a specific contract (see e.g. Bassanini and Garnero, 2013).[35] Complaints in this area are, therefore, likely to be rarer. Indeed, Bassanini et al. (2010) show that the predictive power of indicators of employment protection for temporary contracts on the share of workers under these contracts increases greatly when they are interacted with indicators on enforcement of legislation and/or those countries with the poorest enforcement records are excluded from the sample.

In many countries there are restrictions on the number of renewals or successive FTCs under which a worker can be employed by the same firm without interruption.[36] No legal restrictions on the number of successive contracts or renewals – within the maximum cumulative duration – exist in about two thirds of OECD countries. However, in a few countries, even if there are no legal restrictions on the number of renewals and/or successive contracts, it is not unlikely that courts consider a succession of contracts as sham FTCs hiding a permanent employment relationship (notably in Australia, Denmark, Finland, Japan, New Zealand, Norway and Switzerland). The consequences in these cases could vary from paying damages to the employee concerned to ordering conversion of the contract into an open-ended one. Conversely, the maximum duration of successive contracts is very short in Chile and France, while no substantial limits are found in about one-third of OECD countries[37] as well as in India and South Africa (see Figure 2.7). In Belgium, Ireland, Italy, the Netherlands and Saudi Arabia, there is no limitation for the first contract, but cumulative time limits step in when a renewal occur, or a new contract between the same employer and employee is signed.

### *Temporary-work-agency employment*

TWA employment is based on a specific type of contractual relationship. In this case, workers are hired by an agency and temporarily assigned for work into a user firm, typically to perform temporary tasks outside the "core" business of the user firm or to enable it to cope with short-term increases in workload. With respect to standard fixed-term contracts, workers with TWA contracts often receive more training and are typically assisted in finding assignments (see e.g. Autor, 2001). By contrast, workers on standard temporary contracts are typically provided no or little training (see e.g. Bassanini et al., 2007) and, at the end of their contract, they are left searching for new jobs alone. In addition, in some cases, TWA workers are employed by the agency under an open-ended contract and often, within this contractual relationship, are paid between fixed-term assignments, although sometimes at a low level (this is the case, for example, in Austria, Italy, Slovenia and Sweden). In fact, open-ended contracts between the agency and the worker are the dominant contractual form of TWA employment in at least eight European countries (Table 2.1). For all these reasons, TWA employment is often very valuable to workers in terms of the opportunities offered to them and the possibility to gain experience, thereby representing a stepping stone into stable, regular employment (Jahn and Rosholm, 2012; Von Simson, 2012). At the same time, it can be seen as a useful

Table 2.1. **Permanent and fixed-term contracts with a temporary employment agency**

Percentage of all employees, average 2006-10

| | Permanent contract | | Fixed-term contract | |
|---|---|---|---|---|
| | Not with a temporary employment agency | With a temporary employment agency | Not with a temporary employment agency | With a temporary employment agency |
| Austria | 89.3 | 1.6 | 8.8 | 0.2 |
| Belgium | 91.8 | 0.0 | 6.5 | 1.7 |
| Czech Republic | 90.7 | 0.8 | 8.3 | 0.2 |
| Denmark | 90.4 | 0.9 | 8.3 | 0.4 |
| Estonia | 97.2 | 0.1 | 2.6 | 0.0 |
| Finland | 84.3 | 0.7 | 14.6 | 0.5 |
| France | 85.2 | 0.0 | 12.6 | 2.2 |
| Germany | 83.8 | 1.6 | 13.9 | 0.7 |
| Greece | 88.3 | 0.2 | 11.4 | 0.1 |
| Hungary | 91.5 | 0.4 | 7.8 | 0.3 |
| Ireland | 91.3 | 0.5 | 7.9 | 0.2 |
| Italy | 87.0 | 0.1 | 12.5 | 0.5 |
| Luxembourg | 92.9 | 0.5 | 6.2 | 0.5 |
| Netherlands | 81.6 | 0.5 | 15.0 | 3.0 |
| Norway | 91.4 | 0.0 | 8.4 | 0.1 |
| Poland | 72.7 | 0.0 | 26.7 | 0.6 |
| Portugal | 76.7 | 0.7 | 21.2 | 1.4 |
| Slovak Republic | 94.3 | 0.7 | 4.5 | 0.5 |
| Slovenia | 82.1 | 0.5 | 12.2 | 5.2 |
| Spain | 69.1 | 1.8 | 27.1 | 1.9 |
| Sweden | 82.9 | 0.7 | 16.0 | 0.4 |
| Switzerland | 86.3 | 0.5 | 12.9 | 0.3 |
| Turkey | 88.5 | 0.0 | 11.5 | 0.0 |

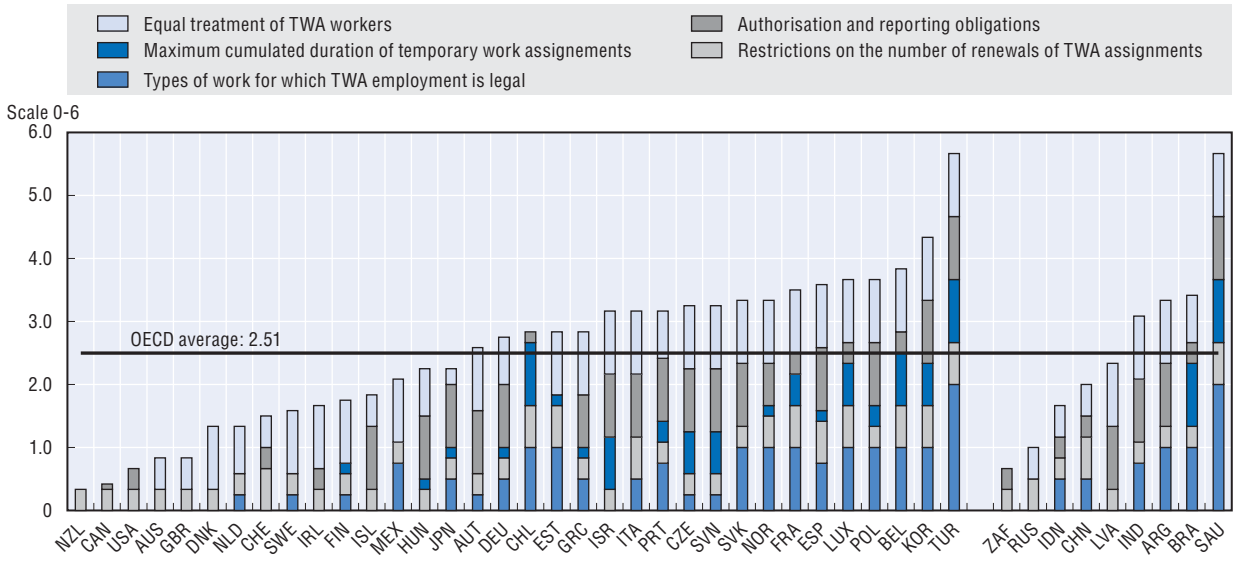
*Note:* 2008-10 for Belgium, Finland, Norway and Portugal.
*Source:* OECD calculations based on EULFS microdata and *OECD Labour Force Statistics Database*, *http://dx.doi.org/10.1787/data-00296-en*.

StatLink http://dx.doi.org/10.1787/888932853378

instrument of flexibility in the labour market.[38] On the other hand, TWA employment might be used in some cases as a cheap way to by-pass employment protection on regular employment, as well as a means to weaken trade unions and avoid constraints imposed by collective agreements, when TWA assignees do not enjoy the same pay and working conditions as other workers regularly employed by their user firm (see e.g. Autor, 2003; Böheim and Zweimüller, 2013).

Most countries put some – albeit often limited – restrictions on the type of work for which TWA employment is allowed. As shown in Figure 2.8, except in English-speaking common-law countries as well as Denmark, Hungary, Iceland, Israel, Switzerland and, among non-OECD economies, Latvia and the Russian Federation, all countries put some limitations to the use of TWA employment.[39] Two clear patterns emerge from the comparison of Figures 2.7 and 2.8. On the one hand, among those countries that limit the type of work for which FTCs are allowed, TWA employment is typically treated no better. Indeed the rank correlation of the cross-country distributions of the indicators of valid cases for use of FTCs or TWA employment is extremely high, particularly if restricted to OECD countries where some limitation is enforced for FTCs.[40] Mexico is the only significant exception to this tendency. While the use of FTCs is severely restricted in this country and requires clear objective reasons (see above), after the liberalisation of TWAs in November 2012 the use of TWA employment should simply concern activities that are normally not performed in the user establishment – although it remains in principle forbidden if workers' contracts are transferred from the user firm to the agency with the aim of reducing labour rights. Second, in a number of countries, the law sets specific limitations to TWA employment while there are no such limitations for FTCs. In particular,

Figure 2.8. **Regulation on temporary-work-agency employment**




*Note:* Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of different subcomponents to the indicator of regulation for TWA employment (EPTWA). TWA employment is defined here as the employment of workers with a contract under which the employer (i.e. the agency), within the framework of its business or professional practice, places the employee at the disposal of a third party (i.e. the user firm) in order to perform work (i.e. the assignment) under supervision and direction of that user firm by virtue of an agreement for the provision of services between the user firm and the agency. The height of the bar represents the value of the EPTWA indicator.

*Source: OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

StatLink *http://dx.doi.org/10.1787/888932852770*

in Argentina, Brazil, Belgium, Chile, Estonia, France, Luxembourg, Norway, Poland, the Slovak Republic and, except in few narrowly defined occupations, Korea, the use of TWA employment must be justified unambiguously on the basis of objective reasons.

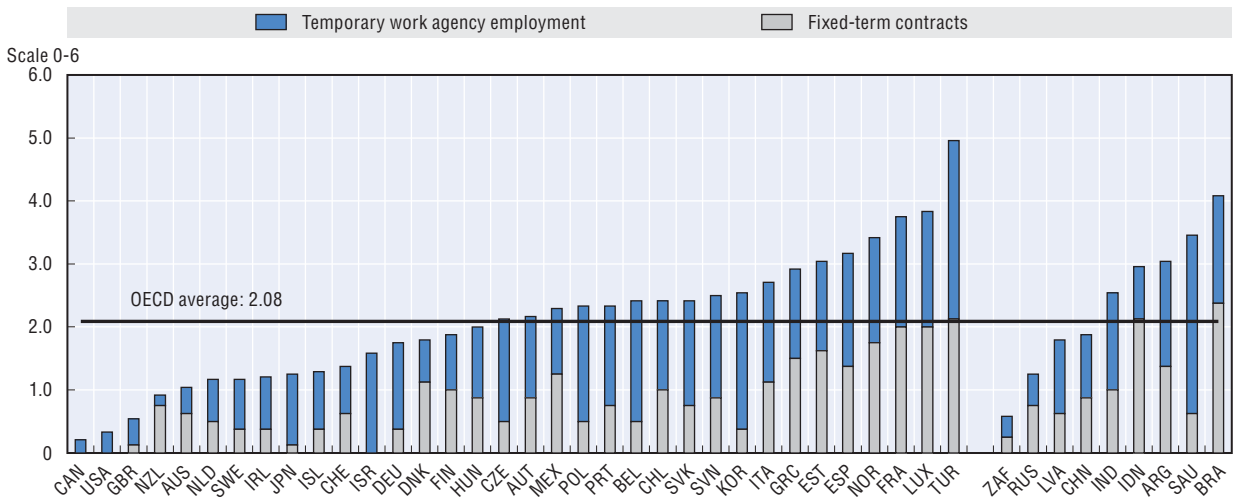
Less than one-third of the countries provide for restrictions on the number of renewals and/or successive assignments of the same worker in the same user firm (Figure 2.8). In a few other countries (Austria, Finland, the Netherlands and New Zealand), regulation in this area focuses only on the employment contract. In fact, while in these countries the number of renewals of assignments is not constrained, legislation, collective agreements or court practices limit the number of renewals of fixed-term contracts between the agency and the worker. Insofar as open-ended contracts between the agency and the worker are not forbidden – and actually encouraged – in these countries, restrictions on contracts only are likely to induce fewer constraints on user firms' practices and, therefore, are not considered in the indicators reported in Figure 2.8. By contrast, there are more frequent limitations on the cumulative duration of assignments, which are found in more than half of OECD countries. The maximum duration of assignments is particularly restrictive, if compared with regulations prevailing in other OECD countries, in Chile (three months, or six months on specific projects), Israel (nine months, except if special permission is granted by the government), Belgium (between three and 18 months, depending on the reason for using TWA employment) and Korea (six months, except in the few occupations where justification of use is not required).[41]

The operation of TWAs is also strictly controlled in many countries. In about half of OECD countries, TWAs must obtain a license from the relevant government authority, with the provision of sufficient financial guarantees being a typical prerequisite for obtaining the license. In addition, in order to keep the license over time, TWAs are also usually subject to regular reporting obligations, often to prove that they comply with existing regulations. Similarly, pay and working conditions are strictly framed in many countries. In fact, a large majority of countries guarantee equal pay and working conditions between regular workers in the user firm and TWA workers on assignment at that user firm. The number of countries guaranteeing equal treatment has also increased recently, particularly in European Union countries, after the approval of the EU Directive on Temporary Agency Work[42] (see the next section). However, in a few countries, equal treatment rules typically apply only for assignments longer than a given duration. For example, in the United Kingdom, equal treatment must be applied only after a qualifying period of 12 weeks; In Germany, in the initial months of assignments the collective agreements in the metalworking sector and the chemical industry guarantee TWA workers only a percentage of pay supplements received by regular employees in the user firm, but this percentage rises with job tenure; in the Netherlands, the collective labour agreement for temporary agency workers stipulates that deviations from the principle of equal treatment concerning wages are possible in the first 26 weeks of an assignment; similar provisions are found in Hungary for the first six months of assignment. In a few other countries (notably Australia, Iceland, Japan and Switzerland), legislation and collective agreements guarantee equality only as regards minimum standards, such as branch-specific minimum wages and basic working conditions. By contrast, in Chile and a few common-law countries (Canada, New Zealand, the United States and South Africa), there is no specific provision concerning equal pay and working conditions.

The indicators of regulation for FTCs and for TWA employment (EPFTC and EPTWA, respectively) summarise the rigidity of these regulations from the point of view of the employer or user firm (for FTCs and TWA employment, respectively). The average of these

two indicators then provides the summary indicator of the strictness of regulation on temporary contracts (EPT; Figure 2.9). These indicators are meant to measure how easily firms can resort to these alternative types of contracts to second their needs of flexibility and lessen the constraints imposed by regulations on regular, open-ended contracts. Besides issues of enforcement (see above), two remarks are in order, however. First, there are other aspects of regulation on temporary contracts that are likely to affect the relative costs of different types of contracts and that are, at the moment, not measured by these indicators. For example, this is the case of the required duration of the interval between two FTCs or TWA assignments for those arrangements not to be considered successive and thus not covered by the statutory limitations on their number or maximum duration. Moreover, whether severance pay must be disbursed or there is protection against unfair termination at the end of the contract and whether contracts can be terminated before the end date, with or without notice, clearly matters as regards the relative costs associated with different contracts. These are also key issues as regards labour market duality (see Section 1 above, as well as Bentolila et al., 2012; and Lepage-Saucier et al., 2013). Second, standard fixed-term contracts and TWA employment represent only an – albeit important – fraction of temporary employment. A number of atypical contracts exist in OECD countries (such as casual, on-call and project-work contracts, see e.g. Venn, 2009). In addition, changing labour markets and the need to increase adaptation and flexibility have led to a blurring of the boundaries between dependent employment and self-employment. Many countries have seen a rising share of independent contractors who depend on a single employer for their income but are legally self-employed and their relationship with their employer is regulated by commercial law. Certain countries have legal instruments to avoid that misuse of false contracts for services in fact masks a true employment relationship. However, all these aspects of regulation are not, at the moment, included in the indicators presented here, which suggests some caution, in particular when looking at country rankings.

Figure 2.9. **Regulation on temporary contracts**




*Note:* Data refer to 2013 for OECD countries and Latvia, 2012 for other countries. The figure presents the contribution of the indicator of regulation for standard fixed-term contracts (EPFTC) and the indicator of regulation for TWA employment (EPTWA) to the indicator of regulation on temporary contracts (EPT). The height of the bar represents the value of the EPT indicator.

*Source:* *OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

StatLink http://dx.doi.org/10.1787/888932852789

Unsurprisingly, there is a close correlation between the stringency of regulations on FTCs and that on TWAs, with Saudi Arabia, Korea and Israel, on the one hand, and Indonesia, on the other, being the main exceptions. The correlation coefficient between these two cross-country distributions is 0.41 (0.51 if restricted to OECD countries only), statistically significant at conventional levels (Figure 2.9). Canada, the United Kingdom, the United States and South Africa are the countries with the lightest regulations on temporary contracts, while Turkey and Brazil stand out as the countries where temporary working arrangements are more difficult.

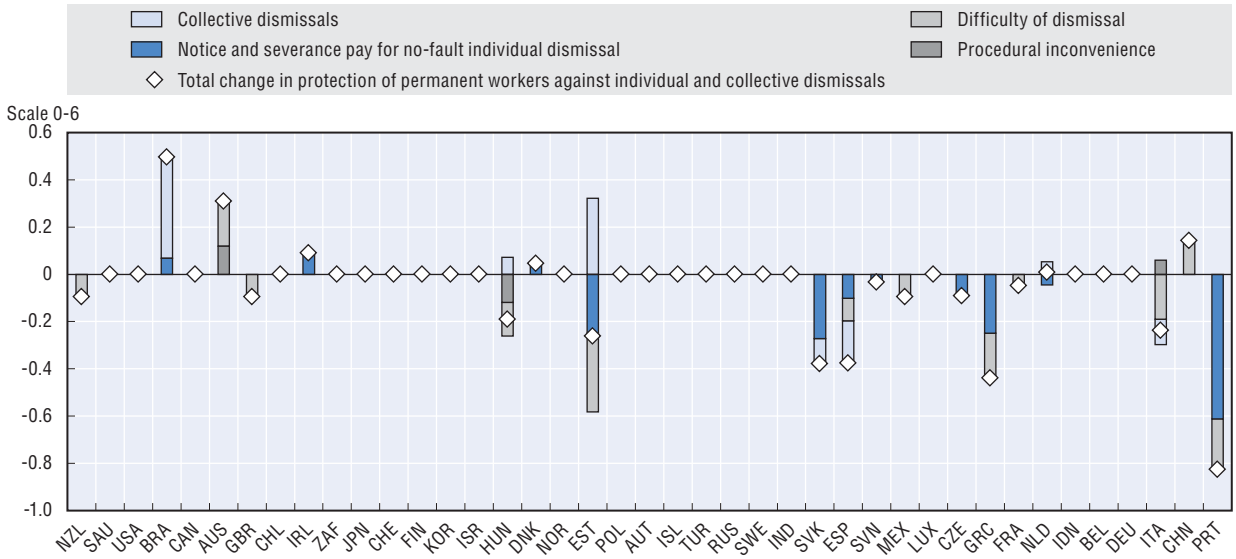
A second stylised fact also emerges from the comparison of Figure 2.9 with Figure 2.4. As already noted in the literature (see e.g. OECD, 2004), there is a positive correlation between the stringency of regulation on temporary contracts and that of employment protection against individual dismissals, as measured by the EPT and EPR indicators, respectively. Indeed, the correlation coefficient of these distributions (0.33) is significant at the 5% statistical level, if all countries are considered, and at the 1% level, if only OECD countries are compared. But these correlations appear entirely due to the institutional settings of those countries where the principles of common law prevail (Australia, Canada, Ireland, Israel, New Zealand, the United Kingdom, the United States and South Africa) in comparison with other countries. In fact, common-law countries are typically characterised by unrestrictive regulations as regards temporary contracts and weak-to-intermediate protection against individual dismissal. By contrast, all other countries are characterised by intermediate-to-strict regulations on both temporary contracts and individual dismissals. Once common-law countries are excluded, no clear relationship emerges between EPR and EPT.[43]

## 3. Recent EPL reforms

Historically, the first examples of statutory employment protection date back to the early twentieth century. In most countries, however, the principle of freedom of contracts continued to dominate until the early 1960s (see e.g. Sigeman, 2002; Deakin and Wilkinson, 2005; Autor et al., 2007). Indeed, most of employment protection norms in the modern form were developed through legislation, collective agreements or court rulings between 1960 and 1980 (see also OECD, 1999). The process of increasingly regulating hiring and firing progressively came to a halt and, essentially, a relative regulatory stability characterised the 1980s and, as regards dismissal regulations, the 1990s (see below).

By contrast, a clearer tendency towards deregulation is observable in the past five years (Figure 2.10) and largely since the onset of the financial crisis. In this period, more than one-third of OECD countries undertook some relaxation of regulations on either individual or collective dismissals. Moreover, in at least five countries, other reforms in this area have been approved since the beginning of 2013 – and are therefore not reflected in the indicators reported in this chapter – or are in the process of being approved (see Box 2.2), thereby reinforcing the pattern shown in the figure. Interestingly, policy action in this respect was more intense in OECD countries that had the most stringent legislation before the onset of the crisis, notably in Portugal, Italy and Greece, suggesting some policy convergence across the OECD area. In particular, three main reforms were undertaken in Portugal in 2009, 2011 and 2012, which significantly shortened notice periods – while making them dependent on job tenure – and reduced the generosity of severance pay – although preserving entitlements accrued under the old rules to avoid the risk of short-run adverse employment effects in the current difficult economic juncture. In addition, dismissal for personal reasons was made easier – by including the case of

Figure 2.10. **Change in protection of regular workers against individual and collective dismissals, 2008-13**




*Note:* Countries are ranked by ascending order of the index of protection of regular workers against individual and collective dismissals (EPRC) in 2008. Data refer to 2012 instead of 2013 for Brazil, China, India, Indonesia, the Russian Federation, Saudi Arabia and South Africa.
*Source: OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

StatLink *http://dx.doi.org/10.1787/888932852808*

continued reduction of productivity in the definition of valid grounds for termination and limiting possible remedies in the case of simple breaches of procedural requirements to monetary compensation at a reduced rate. Moreover, individual dismissals for reasons of job redundancy no longer need to follow a pre-defined seniority order and the requirement of trying to arrange a transfer to another position within the company prior to dismissal was lifted. In Greece, a reform in 2010, followed by an additional adjustment in 2012, significantly reduced notice periods and severance pay. Finally, in Italy, one of the main changes introduced by the reform of July 2012 consisted in restricting the number of cases in which reinstatement can be ordered by a court to the more severe cases of unlawful dismissal (e.g. discrimination).[44]

Other significant liberalisation reforms, entailing a reduction in the EPRC indicator larger than 0.2 points, occurred in Estonia, the Slovak Republic and Spain. In Estonia, the new Labour Code enforced in July 2009, radically changed the menu of remedies available to courts in the case of unfair dismissals, by making the possibility of reinstatement conditional on the agreement of both parties – except in certain discrimination cases – and halving the amount of compensation that should be paid to the worker. In addition, notification requirements for individual dismissals were simplified and notice periods and severance pay schedules made more progressive with respect to job tenure and, on average, somewhat smaller. In the Slovak Republic, the reform of the Labour Code of September 2011 reduced notice periods, suppressed severance pay conditional on observing notice and lifted the obligation of negotiating with government authorities in the case of collective dismissals. The reference period to identify a collective redundancy was also shortened from 90 to 30 days, even if the size threshold was also reduced from 20 to 10 dismissed workers. These reforms were only partially reversed with the 2012 reform of the Labour Code (enforced on 1 January 2013), which reintroduced severance pay, although at a lower level and with a

### Box 2.2. **Recent and on-going reforms in France, the Netherlands, Portugal, Slovenia and the United Kingdom**

A number of countries have undertaken, or are planning, reforms of EPL in 2013. In the *United Kingdom*, an amendment of the Trade Union and Labour Relations (Consolidation) Act 1992 was approved early in 2013. It stipulates that fixed-term contracts not terminating for reasons of redundancy are no longer included in the provisions on collective dismissals. More importantly, the minimum number of days that must elapse before the first dismissal can take effect – in order to allow for good-faith consultations with unions – was reduced from 90 to 45 days, when the employer is proposing to dismiss 100 or more employees within a period of 90 days or less. This reduces the gap in protection between individual and collective dismissals, bringing it more in line with the OECD average. The new legislation came into effect on 6 April 2013.

In *France*, a reform of the labour code was approved by Parliament in May 2013. The key policy provision is to allow social partners, in times of serious company difficulties, to negotiate a firm-level agreement concerning temporary wage and working-time reductions in exchange for a guarantee of job preservation. Once such an agreement is signed by workers' representatives, a worker who refuses its application can be fairly dismissed for economic reasons, which represents a derogation from the labour code that is currently in force. The new legislation also reduces, for termination cases, the length of the period in which a complaint can be filed (which however remains much longer than the OECD average, in particular in the case of dismissal for personal reasons) and shortens and simplifies the procedures in the case of collective dismissals. Finally, a specific schedule for worker compensation is set for pre-trial conciliation settlements, which is lower than standard levels of compensation awarded by courts when the judge rules that the dismissal is unfair. Finally, a non-conversion tax – in the form of greater employer social security contributions – is introduced as regards fixed-term contracts if they are not transformed into open-ended ones at the end of the fixed term. While this reform clearly relaxes the legislation for regular contracts, it is nonetheless impossible, at the moment, to estimate its impact on the EPL indicators.

In the *Netherlands*, the government concluded an agreement with the social partners in April 2013, which includes proposals for a comprehensive EPL reform, with the aim of improving the current "dual system" (see Section 2). The main novelty is that, in the case of personal reasons, the only possible route to dismissal would be by filing a request to a sub-district court to dissolve an employment contract. By contrast economic dismissals would be possible only subject to approval of the Employee Insurance Agency (UWV). In the case of a negative decision by UWV, the employer would be able to ask the court to dissolve the contract. Moreover, under the new proposed rules, compensation for unfair dismissals could be at most one half of a month's salary for each year of service, with a ceiling of EUR 75 000. The opinion expressed by UWV would be key element in determining the fairness of the termination. Overall, however, it is still unclear whether the reform would effectively reduce dismissal costs for permanent contracts. Protection for employees on fixed-term contracts would also be considerably increased.

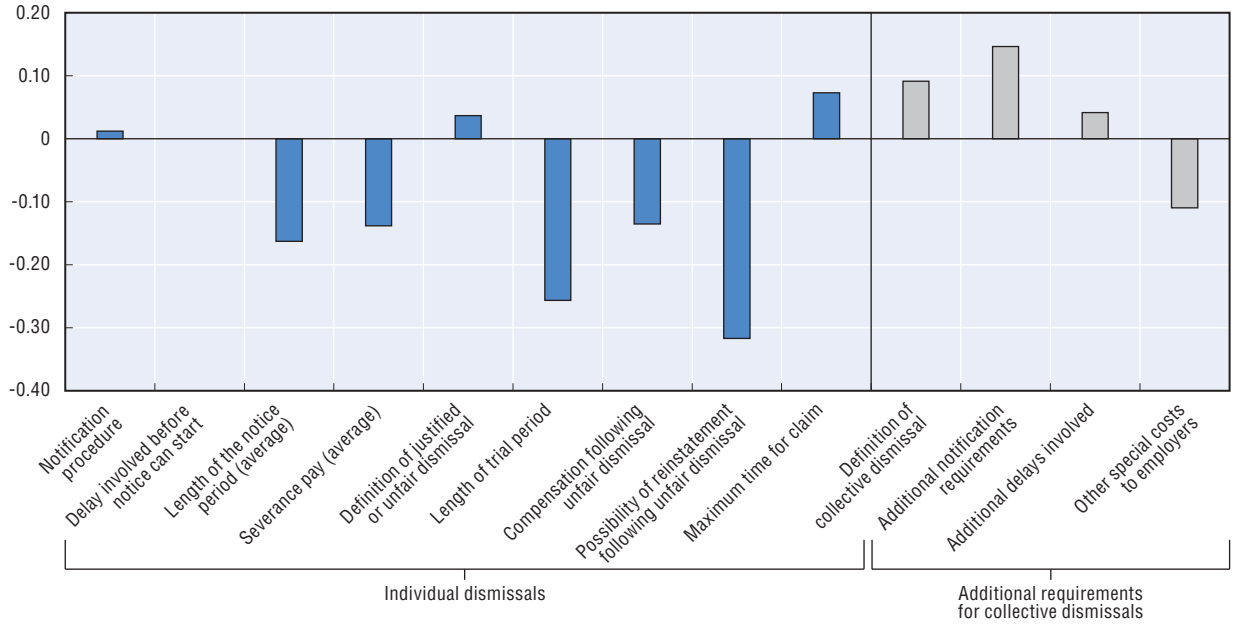
In *Portugal*, following consultation with the social partners, a new schedule for severance payments was agreed. Newly hired workers will be entitled to 12 days per year of service upon dismissal instead of the 20 days as in the 2012 reform (and down from the 30 days before). By contrast, incumbent workers will receive, in the case of layoff, 18 days per year of service for the first three years of service and 12 days for the remaining years. The 12-month cap remains in place. This reform is planned to be implemented in November 2013 and will result in a further – albeit limited – reduction of the EPRC indicator.

Finally, a new Employment Relations Act was approved by the *Slovenian* parliament in March 2013 and entered in force on 12 April 2013. The proposed reform reduces notice periods, making them more dependent on service duration. A few amendments were also made to severance pay. Moreover, the reform suppresses the requirement that employers provide the proof of having attempted redeployment within the company before making redundancies. In addition, the negative opinion of the trade unions can no longer affect the date of dismissal. By contrast, the reform is far more radical as regards temporary contracts. In particular, employers are now forbidden to hire different workers on the same post using fixed-term contracts for more than two consecutive years. In addition a maximum quota is imposed to TWA employment in the user firm. Overall, the reform results in a significant reduction of the EPRC indicator for Slovenia.

schedule more dependent on job tenure. In Spain, the reform of February 2012 halved notice periods, significantly curbed monetary compensation for unfair dismissal – although preserving workers' rights acquired before 12 February 2012 – and greatly simplified procedures for collective redundancy – by suppressing administrative authorisation and shortening delays before notice can start.[45] By contrast, significant re-regulation occurred in Australia in 2009 with the adoption of the Fair Work Act.[46] This act introduced a new provision preventing employers from dismissing a worker on the basis of redundancy without first considering opportunities for redeployment within the company or an associated entity of the company. Moreover, the size threshold for exemption from the main EPL provisions was reduced from 100 to 15 workers.

Overall, the main areas where a loosening of employment protection took place since 2008 were the limitation of the possibility of reinstatement in the case of unfair dismissal and the extension of the duration of the trial period (Figure 2.11). These developments are particularly welcome insofar as the extent of reinstatement and the length of the trial period are the aspects of EPL that have been found in the empirical literature to be those most affecting labour reallocation – and therefore productivity – and, in particular, job-to-job transitions (see Section 1 above). The literature also suggests that reforms affecting *new hires* are also easier to implement (e.g. Saint-Paul, 1996; Boeri, 2011), which can partly explain policy action as regards the trial period. However, following the same argument, one would have expected more action concerning hiring regulations for temporary contracts. By contrast only limited policy interventions occurred in this area in the past five years (Figure 2.12). In this period, the only significant reforms making less restrictive the regulation of temporary contracts were the liberalisation of TWA employment

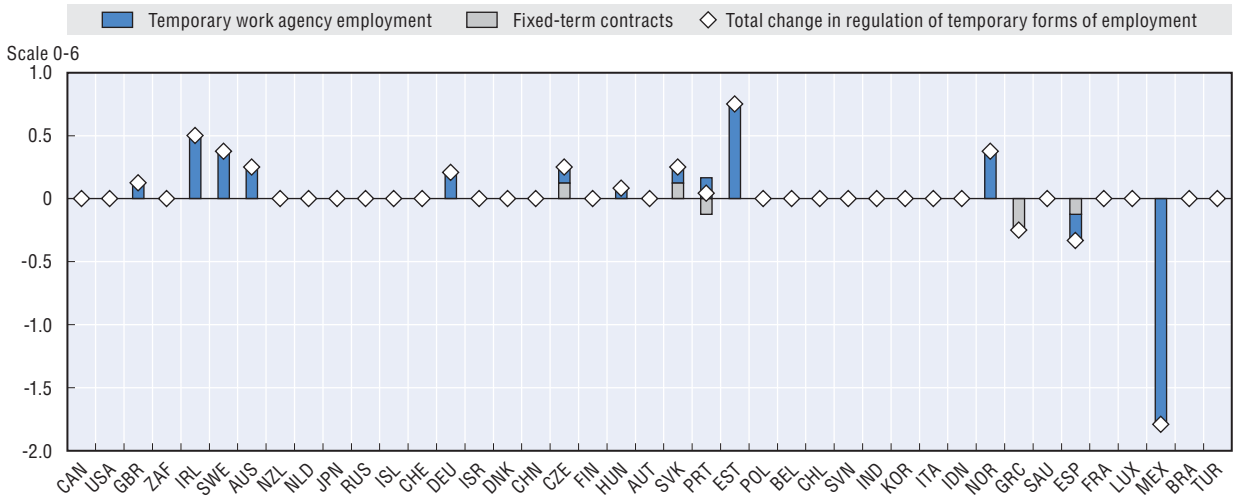
Figure 2.11. **Average change in protection of regular workers against individual and collective dismissals, by component, 2008-13**




*Note:* Each bar in the figure represents the average change of each component. Averages are computed across OECD and G20 countries. Data refer to 2012 instead of 2013 for Brazil, China, India, Indonesia, the Russian Federation, Saudi Arabia and South Africa.
*Source:* OECD *Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

StatLink *http://dx.doi.org/10.1787/888932852827*

Figure 2.12. **Change in regulation for temporary contracts, 2008-13**




*Note:* Countries are ranked by ascending order of the index of regulation for temporary contracts (EPT) in 2008. Data refer to 2012 instead of 2013 for Brazil, China, India, Indonesia, the Russian Federation, Saudi Arabia and South Africa.
*Source:* *OECD Employment Protection Database*, 2013 update, *http://dx.doi.org/10.1787/lfs-epl-data-en*.

StatLink *http://dx.doi.org/10.1787/888932852846*

in Mexico and more limited interventions lengthening maximum duration of fixed-term contracts and TWA assignments in Greece and Spain. By contrast, policy makers in other countries have rather tended to make regulations for temporary contracts more restrictive even though in most cases by simply enforcing more rigorous applications of the principle of equal treatment between regular employees and TWA workers (in Australia, Germany, Greece, Ireland, Norway, Sweden, the Slovak Republic and the United Kingdom). Overall, this tendency suggests some form of convergence between protections for regular and temporary contracts – although simply obtained by reducing protections on open-ended contracts – that can be expected to reduce labour market dualism in the near future (see e.g. Boeri, 2011; Bentolila et al., 2012; Lepage-Saucier et al., 2013).

The pattern of policy reform observed since the onset of the crisis, however, seems to have simply reinforced a trend that was already in motion there since the early 2000s. Between 2003 and 2008, about one-fourth of OECD countries made some reform aiming at relaxing regulation for individual or collective dismissals, while a substantial stability stands out as regards temporary contracts – particularly if a couple of countries that made large interventions in this area are set aside.

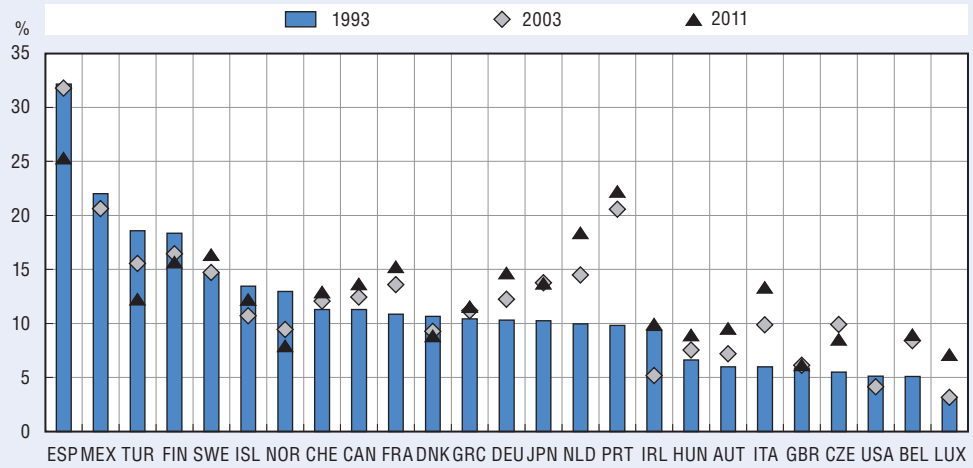
The large reform activity of the past ten years – aimed at making the labour market more flexible by facilitating firm-level staff adjustment through dismissals – is in marked contrast with the reform pattern of the previous decade – where governments often tried to achieve the required degree of flexibility by liberalising temporary contracts while maintaining unaltered protections on regular employees. Between 1993 and 2003, 11 OECD countries made some reform reducing the EPT indicator. By contrast, only eight countries made some action affecting the EPR indicator,[47] and most often reforms in this area were minor. Available evidence suggests that this tendency is likely to have contributed to the rising share of workers on fixed-term contracts in OECD countries (see Box 2.3).

### Box 2.3. **Partial EPL reforms and the growth of fixed-term contracts**

The share of fixed-term contracts has grown significantly in the past two decades (see the figure below). Are the partial reforms of EPL in the 1990s – whereby hiring on temporary contracts was largely deregulated while maintaining stringent restrictions on regular contracts – responsible for this expansion of non-permanent – and often precarious – forms of employment? Identifying a significant relationship between *changes* in regulations and the *stock* of workers on fixed-term contracts is typically difficult (see e.g. OECD, 2004, 2010), in particular because substitution across types of contracts is likely to occur only over time through the process of hiring and separations (see e.g. Boeri, 2011). Moreover, the growth of fixed-term contracts obeys first and foremost to convergence across OECD countries, as shown by the extremely high negative correlation between the levels and changes of this share in this period – the correlation coefficient between the level of this share in 1993 and its change over 1993-2011 being -0.63. This suggests that technological transformations of OECD economies, their greater integration and increasing needs of adapting to change are the likely main drivers of the recent surge in the share of fixed-term contracts.

**Incidence of fixed-term contracts, 1993, 2003 and 2011**

Employees with fixed-term contracts as a percentage of total employees




*Note:* Instead of 1993, data refer to 1994 for the Slovak Republic; 1995 for Austria, Mexico and the United States; 1996 for Norway; 1997 for Canada, Finland, Hungary and Sweden; 1998 for Switzerland. Data refer to the average 2001-05 instead of 2003 for the United States.

*Source: OECD Database on Labour Force Statistics, http://dx.doi.org/10.1787/lfs-lms-data-en.*

StatLink *http://dx.doi.org/10.1787/888932852903*

However, the fact that most deregulation of fixed-term contracts occurred in the 1990s, while regulations remained fairly stable in the subsequent years, is likely to make it easier to identify the role of deregulation since a longer post-deregulation period is observable. In fact, conditional on the share of fixed-term contracts in 1993, there appears to be a significant association between changes in this share and changes in the EPT indicator between 1993 and 2011, independently from controlling or not for changes in regulation for permanent contracts. Correlating changes in the incidence of fixed-term employment and in the EPT indicator over the period 1993-2011 one obtains a correlation coefficient of -0.24, insignificant at conventional levels. However, in a regression setting with robust standard errors, controlling for the initial incidence yields a coefficient on the change in the EPT indicator of -1.18 (with t-stat equal to 2.4). If the change in the EPR indicator is further included, the estimated coefficient of the change in the EPT indicator becomes -1.11 (with t-stat equal to 2.18). Although one needs to be cautious in interpreting these results, which cannot rigorously be interpreted as causality, there is also some limited evidence from cross-country/time-series regressions that, conditional on employment protection for regular workers, relaxing restrictions on temporary contracts led to a greater share of temporary workers in new jobs (Lepage-Saucier et al., 2013).

## 4. Resolving disputes about dismissal

The discussion of employment protection to this point relates to regulation that *should* apply under prevailing legislation and collective agreements.[48] However, the efficiency of the process of dispute resolution is also a key determinant of the costs and effectiveness of employment protection. For employers, costly, complex or time-consuming legal processes can add significantly to the cost of hiring and especially dismissing workers. But equally, if it is difficult or costly for employees to pursue cases of unfair dismissal, the law may be less strictly adhered to by employers. This section will focus mainly on dispute-resolution procedures concerning unfair dismissal claims as this is one of the key areas where the interpretation of the law leaves room for disagreement among the parties, often leading to protracted legal proceedings to establish whether a dismissal was fair or not. However, many of these procedures (workplace-based dispute resolution mechanisms, mediation, labour courts, etc.) apply equally to disputes about other aspects of employment protection regulation (e.g. temporary contracts).[49]

Rules for individual dismissals are typically enforced by an employee making a complaint that his/her dismissal was unfair or did not follow proper procedures *after* the dismissal has taken place. Table 2.2 outlines the procedures involved in resolving non-discriminatory unfair dismissal cases in OECD countries. Most have pre-court dispute-resolution procedures set out in legislation and/or collective agreements designed to help parties resolve disputes before an official complaint is made. In several countries, attempting pre-court dispute resolution is an official prerequisite to lodging a complaint with a court or tribunal (e.g. Chile, Italy, New Zealand, Spain, Sweden) or the court/tribunal takes pre-court negotiation attempts into consideration when making a decision on unfair dismissal cases.

If parties cannot resolve a dispute themselves, the employee can make a complaint of unfair dismissal to a court or tribunal. Many courts and tribunals waive court costs (such as administrative, witness and sitting fees) for parties in labour disputes. However, in order to discourage frivolous legal action, the losing party must pay the other party's legal costs (and any applicable court costs) in much more than half of OECD countries. Legal aid – either direct advice and representation or reimbursement of costs – is available in most countries, although typically only to parties with limited financial resources to fund legal action. Trade unions and employer organisations often provide legal advice and assistance to their members in such situations.

In most OECD countries, the first stage of court or tribunal proceedings involves conciliation or mediation to encourage the parties to resolve the dispute through negotiation. Parties can generally opt out of conciliation, although participation is mandatory (or near mandatory) in Chile, France, Germany, Hungary, Italy, Spain and Switzerland. In a number of countries, an agreement reached in the conciliation phase is legally binding (or becomes legally binding after verification by the court). The final decision of a court or tribunal can be appealed almost everywhere, except in a number of Nordic countries. Most appeals are heard by higher-level ordinary courts, although some countries have higher-level labour courts for hearing appeals.

The employer has the burden of proof in dismissal cases in most countries. This is usually justified on several grounds. One key reason is access to evidence. Often employers have control on the documentation justifying (or not) termination, while workers or their legal representatives cannot easily access it. Another reason is the legal structure of

Table 2.2. **Remedial procedures for resolving non-discriminatory unfair dismissal disputes**

| | Pre-court dispute resolution | | | Court or tribunal | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Regulated through | Required/ considered by court | Govt-funded C/M | Type of court/tribunal | Type of judges | Pre-trial C/M | C/M outcome enforceable | Simplified procedure | Mandatory legal rep. | Burden of proof | Court charges costs | Losing party pays costs | Legal aid | Appeal court/tribunal |
| Australia | CA, Leg. | No | Yes | Labour tribunal | L, P | V | Yes | Yes | No | Employer | Some | Vex. | No | Specialised/ordinary |
| Austria | None | No | No | Special branch | L, P | V | .. | No | No | Employer | No | No | Yes | Specialised |
| Belgium | CA | No | No | Labour tribunal | L, P | V | No | Yes | No | Employer | Yes | Yes | Yes | Specialised |
| Canada | Legislation | Yes | Yes | Labour adjudicator/tribunal | L | None | .. | Yes | No | Employer | No | No | Yes (Quebec) | Ordinary (limited) |
| Chile | Leg. | Yes | Yes | Labour tribunal | P | M | Yes | Yes | Yes | Employer | Yes | Vex. | Yes | Ordinary |
| Czech Republic | CA, Leg. | Yes | Yes | Ordinary court | L, P | V | Yes | No | No | Claimant | Yes | Yes | Yes | Ordinary |
| Denmark | CA | Yes | Yes | Labour tribunal | L, P | V | Yes | Yes | No | Claimant | Yes | Yes | No | None |
| Finland | CA | Yes | No | Ordinary court | P | V | Yes | No | No | Employer | Yes | Yes | Yes | Ordinary |
| France | None | No | No | Labour tribunal | L | M | No | Yes | No | Employer | .. | No | No | Ordinary |
| Germany | CA | Some | .. | Labour court | L, P | M | Yes | Yes | No | Employer | Yes | Yes | Yes | Specialised |
| Greece | Leg. | No | Yes | Ordinary court | P | None | No | Yes | No | Employer | Yes | Yes | Yes | Ordinary |
| Hungary | None | No | No | Labour court | L, P | M | Yes | Yes | No | Claimant | No | Yes | Yes | Ordinary |
| Iceland | .. | No | .. | Labour court | L, P | .. | .. | Yes | No | Employer | .. | No | Yes | None |
| Ireland | Leg. | Yes | Yes | Labour tribunal | L, P | None | .. | Yes | No | Employer | No | Vex. | No | Ordinary |
| Israel | CA | Yes | Yes | Labour court | L, P | V | Yes | Yes | No | Claimant | Yes | Yes | No | Specialised |
| Italy | CA, Leg. | Yes | Yes | Special branch | P | M | Yes | Yes | Yes | Employer | No | Yes | Yes | Specialised |
| Japan | Leg. | No | Yes | Labour tribunal/ordinary court | L, P | V | Yes | Yes | No | Employer | Yes | No | Yes | Ordinary |
| Korea | None | No | No | Labour tribunal/ordinary court | L, P | V | Yes | Yes | No | Employer | Yes | Yes | Yes | Ordinary |
| Luxembourg | Leg. | No | Yes | Labour tribunal | L, P | .. | No | Yes | No | Employer | No | .. | Yes | Ordinary |
| Mexico | Leg. | No | Yes | Labour tribunal | L | V | Yes | Yes | No | Employer | No | No | Yes | Ordinary |
| Netherlands | Int. proc. | Some | No | Ordinary court | P | V | No | No | No | Employer | Yes | Yes | Yes | Ordinary |
| New Zealand | Leg. | Yes | Yes | Labour tribunal | L | V | Yes | Yes | No | Employer | Yes | No | Yes | Specialised |
| Norway | .. | Some | No | Ordinary court | L, P | V | Yes | No | No | Employer | No | Yes | Yes | Ordinary |
| Poland | Leg. | No | .. | Special branch | L, P | V | Yes | Yes | No | Claimant | No | Some | Yes | Ordinary |
| Portugal | None | .. | .. | Labour court | P | V | .. | Yes | No | Employer | Yes | Yes | Yes | Ordinary |

Table 2.2. **Remedial procedures for resolving non-discriminatory unfair dismissal disputes** *(cont.)*

| | Pre-court dispute resolution | | | Court or tribunal | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Regulated through | Required/ considered by court | Govt-funded C/M | Type of court/tribunal | Type of judges | Pre-trial C/M | C/M outcome enforceable | Simplified procedure | Mandatory legal rep. | Burden of proof | Court charges costs | Losing party pays costs | Legal aid | Appeal court/tribunal |
| Slovak Republic | None | Yes | .. | Ordinary court | P | V | No | No | No | Claimant | Yes | Yes | Yes | Ordinary |
| Slovenia | CA, Leg. | No | No | Labour court | L, P | V | Yes | No | No | Employer | Yes | Vex | Yes | Specialised |
| Spain | CA, Leg. | Yes | Yes | Labour court | P | M | Yes | Yes | No | Employer | No | No | Yes | Specialised |
| Sweden | CA, Leg. | Yes | No | Labour court/ordinary court | L, P | V | Some | Yes | No | Employer | No | Yes | Yes | Specialised |
| Switzerland | CA, Leg. | Yes | No | Labour court/ordinary court | L, P | M | Yes | Yes | No | Claimant | Yes | Yes | Yes | Ordinary |
| Turkey | Leg. | No | No | Labour court | P | V | .. | Yes | No | Employer | No | Yes | No | Ordinary |
| United Kingdom | Leg. | No | Yes | Labour tribunal | L, P | V | Yes | Yes | No | Employer | No | Vex. | No | Specialised |
| United States | CA, other contract or none | Depends | No | Ordinary court | P | Depends | Depends | No | Not for claimant | Claimant | Depends | Depends | No | Ordinary |

*Note:* Latest available years.
See Annex 2.A2 for the country notes to the table.
..: Information not available.
CA: Collective agreement.
C/M: Conciliation and/or mediation.
Int. proc.: Internal procedures in some firms.
L: Lay judges;
Leg.: Legislation.
M: Mandatory.
P: Professional judges.
V: Voluntary.
Vex.: Loser only pays costs if the case was vexatiously or irresponsibly brought.
*Source:* 2013 OECD Questionnaire on Employment Protection Legislation; and Venn, D. (2009), "Legislation, Collective Bargaining and Enforcement: Updating the OECD Employment Protection Indicators", *OECD Social, Employment and Migration Working Papers*, No. 89, OECD Publishing, Paris, *http://dx.doi.org/10.1787/223334316804*.

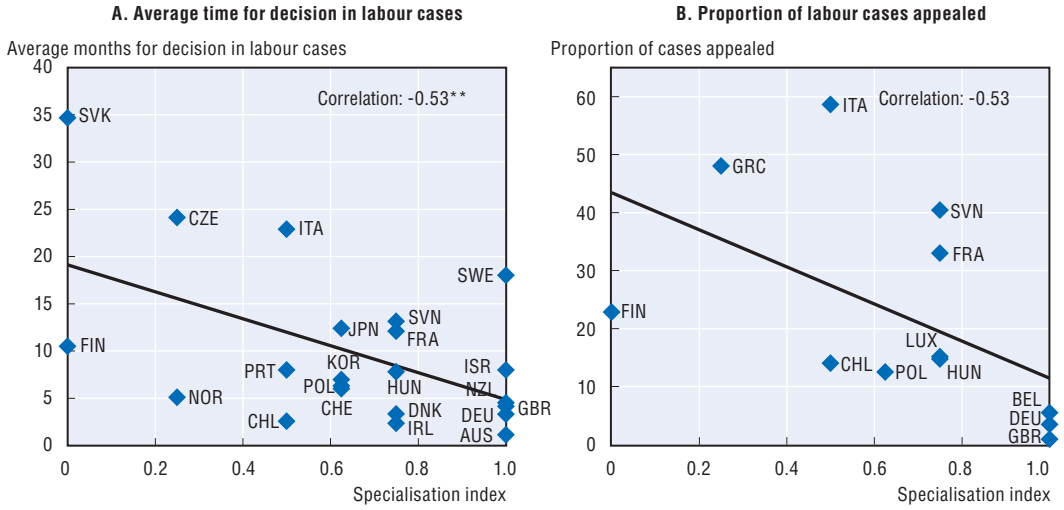
unfair-dismissal legislation. Typically, the employer is allowed to dismiss employees only with a justified reason and in compliance with a due process. This means that where a dismissal occurs, the employer must have the primary burden to prove that he/she had a justified cause and that he/she complied with the prescribed procedural requirements.

### *Are specialised courts better?*

More than half of OECD countries have specialised courts or tribunals to hear labour disputes, while in the remainder disputes are heard by ordinary civil courts (in Austria, Italy and Poland, there are special branches of the ordinary civil court system to hear first-instance labour disputes). Moreover, in an effort to make enforcement of labour law quicker and more accessible, most OECD countries have simplified procedures for dealing with labour law cases in courts and tribunals compared with ordinary civil cases. Even among those countries that use ordinary civil courts, most have simplified procedures for hearing labour law cases. For example, evidence may be taken orally and proceedings are much less formal than in ordinary civil cases. Many countries have lay judges with expertise in labour matters and nominated by employer and employee representatives serving alongside, or instead of, professional judges (see Table 2.2).

The *degree of specialisation* of courts hearing termination cases appears to be an important determinant of enforcement costs and effectiveness in labour law and dismissal cases. An indicator of the degree of specialisation can be constructed using information from Table 2.2, where the degree of specialisation (ranging from 0 for least to 1 for most specialised) increases when specialised rather than ordinary courts hear disputes, where lay judges are involved, where simplified procedures are in place for labour and/or dismissal cases and where appeals are heard by specialised rather than ordinary courts.[50] The evidence based on this indicator and court outcomes shows that specialisation is associated with faster proceedings and fewer appeals (Figure 2.13). This is consistent with

Figure 2.13. **Court specialisation and outcomes**




*Note:* Latest available years.
** statistically significant at the 5% level.
*Source:* 2013 OECD Questionnaire on Employment Protection Legislation; and Venn, D. (2009), "Legislation, Collective Bargaining and Enforcement: Updating the OECD Employment Protection Indicators", *OECD Social, Employment and Migration Working Papers*, No. 89, OECD Publishing, Paris, *http://dx.doi.org/10.1787/223334316804*.

StatLink *http://dx.doi.org/10.1787/888932852865*

evidence from Djankov et al. (2003), who find that, in simple civil court cases, more formalised procedures have been associated with longer court proceedings, less consistency, less fairness and more corruption. However, specialised courts and procedures may also be more accessible to the interested parties as a means of resolving disputes, which might increase the incentive to lodge a complaint (Venn, 2009).

### *Reducing the cost of resolving dismissal disputes*

#### *Resolving disputes early saves time and money*

Early resolution of disputes saves time and money compared with waiting for a court or tribunal decision. In most OECD countries, employers are required to pay employees for the length of time between an unfair dismissal and a court ruling. Early settlement can therefore reduce this cost component for employers. Equally, longer and more legalistic proceedings increase legal and other costs for *both* parties. For example, UK employment tribunal cases resolved by a full tribunal hearing cost, on average, more than twice as much for employers and almost three times as much for employees than cases resolved at the conciliation stage (Knight and Latreille, 2000). Three quarters of UK employers who made a settlement offer for a case before the employment tribunal did so to save time or money (Hayward et al., 2004). Likewise, Mexican dismissal disputes that go to court typically cost firms 50% more than those that are resolved informally (Rojas and Santamaria, 2007). A survey of New Zealand employers found that labour disputes resolved in-house cost up to 20 times less (including legal, compensation, investigation and replacement staff costs) and took one fifth of the time of disputes resolved by formal mediation (New Zealand Department of Labour, 2008).[51]

As well as saving on monetary costs, resolving disputes early can reduce stress and improve the odds that employment relationships can be repaired and continued. Employment disputes generally cause stress to those involved, may reduce workplace productivity and sometimes increase the use of sick leave. These effects are multiplied when disputes are protracted or adversarial (Armstrong and Coats, 2007). Less formal dispute-resolution processes can result in non-monetary outcomes, such as an apology, reference or changes to workplace practices (Seargeant, 2005). Resolving disputes before they escalate can also reduce the volume of cases appearing before courts and tribunals, reducing public expenditure and leaving judges to focus on more complex cases.

The probability that a case will be settled (rather than proceeding to a court or tribunal ruling) depends on the parties' probability of success in the court or tribunal hearing, the amount of compensation awarded if the dismissal is found to be unfair, the cost of pursuing the case and the parties' relative tastes for risk. An examination of the extensive literature on civil litigation shows that pre-trial settlement is more likely where the costs of proceeding to trial are high, where the loser pays litigation costs, where the defendant (in this case the employer) is relatively more optimistic about the outcome of the trial than the plaintiff (employee) or where the potential payout resulting from a trial is more uncertain (Kessler and Rubinfield, 2007).

Knight and Latreille (2000) report that workers with little bargaining power (women, low-skilled, part-time or low-paid workers) are more likely to settle employment tribunal cases at the conciliation or pre-tribunal phase than proceed to a hearing, possibly at the cost of an inferior settlement. This could be because such workers are more risk-averse (and so more willing to accept a lower certain payment than a higher uncertain payment) or because of the high cost of pursuing a case decided by the tribunal. Kaplan et al. (2008)

examine settlements in labour cases in Mexico and find that employees who exaggerate their claims – i.e. those with unrealistic expectations about the likelihood of success – are less likely to settle and end up with lower awards at trial.

### *Keeping cases out of courts*

As shown in Table 2.2, many OECD countries have institutionalised procedures to encourage parties to resolve dismissal disputes before they reach the court. Where pre-court dispute resolution is regulated through collective agreements rather than legislation, uncovered employees may have few formal avenues to resolve disputes other than lodging a complaint with a court or tribunal. However, in countries where collective agreements are the only source of formal dispute-settlement procedures, collective bargaining coverage is often high so it is likely that most disputes are channelled through the dispute settlement process outlined in these agreements. Of course, employees and employers in all countries can resolve many disputes informally, regardless of the prevailing institutional arrangements.

While mandating dispute-settlement procedures in legislation may seem attractive to encourage parties to avoid going to the court, care should be taken to avoid simply adding another administrative step to the dispute settlement process. For example, the United Kingdom introduced regulations in 2004 making it mandatory for employees and employers to follow a three-step procedure when taking disciplinary action (including dismissal) or making a complaint about a workplace grievance. If a dismissal case was subsequently taken to an employment tribunal, there is an automatic finding of unfair dismissal by the tribunal if the procedures had not been followed. The regulations were designed to ease pressure on the employment tribunal system by encouraging parties to resolve disputes as early as possible. However, an independent review found that the regulations, while initially reducing the number of disputes heard by the employment tribunal, had unnecessarily formalised the process of dealing with workplace disputes (Gibbons, 2007). In response, the 2008 Employment Act replaced the regulations with a code of practice alongside measures intended to encourage the use of informal dispute resolution. To maintain incentives for resolving disputes at an early stage, the employment tribunal is able to adjust compensation awards to take into account prior dispute-resolution attempts in line with the code of practice. Such adjustments were automatic under the previous regulations, but are now at the discretion of the employment tribunal.

There is evidence that where unfair-dismissal disputes are settled prior to a complaint being made to a court or tribunal, by far the most likely outcome is the employee accepting the dismissal in return for an additional payment (Venn, 2009). This practice for keeping disputes out of court has been institutionalised in several countries. For example, in Germany, in the case of dismissal for economic reasons, the employee can trade its right to contest the dismissal in court against a guaranteed minimum severance payment (and the right to claim unemployment benefits). France introduced a formalised scheme of termination by mutual agreement in 2008 (the *rupture conventionnelle*). The agreement must be approved by the Labour Ministry and is subject to a cooling-off period, after which the employee is at least entitled to standard severance pay and unemployment benefits. However, in contrast to the German case, neither the agreement nor its official approval prevent the employee from subsequently taking a case to court alleging that the agreement was not made voluntarily (see, for example, the case law review in Grumbach and Serverin, 2011), notably in the case of previous conflicts between the employer and the employee.[52]

Nonetheless, there is evidence that this type of termination is increasingly a substitute for dismissals (see e.g. Paraire, 2012), even though recent court rulings might modify this pattern in the future.

### *Pre-trial mediation and conciliation*

The most widespread use of alternative dispute-resolution procedures occurs after a complaint has been made to a court or tribunal. In almost every OECD country, courts and tribunals attempt to broker a compromise solution between the parties at the start of formal legal proceedings. Typically, half to three quarters of cases lodged with courts and tribunals are resolved without recourse to a court decision (Venn, 2009). However, despite the widespread use of pre-court conciliation in labour law cases, there is little empirical evidence on its effectiveness. Latreille (2007) finds that conciliation in the UK employment tribunal increases both the probability that an employer makes a settlement offer and the likelihood that an employee accepts the offer, possibly by helping parties to tone down their expectations about the outcomes of a tribunal ruling. A key question when examining the efficiency of pre-trial conciliation is whether cases resolved in conciliation are those that would have been settled out-of-court anyway. Almost uniformly high settlement rates across OECD economies, along with a lack of correlation between the existence of pre-trial mediation and conciliation rates, suggest that formal conciliation may play only a minor role in promoting settlement. Clearly, more evaluation of the impacts of pre-trial conciliation in labour law cases is needed.

How can pre-trial conciliation be designed to increase the likelihood of dispute settlement? Mandatory conciliation is unlikely to be constructive if parties are particularly hostile, but mandating an initial conciliation meeting at least provides an opportunity for parties to meet outside court in a non-adversarial environment and may add pressure to resolve disputes amicably. Zack (2006) argues that maintaining confidentiality (by not reporting back to the court on what is said during conciliation) is important to encourage frankness. To this end, having the same judge presiding over conciliation and trial proceedings is less preferable than maintaining a separate conciliation service, either within or external to the court, or at the least having different judges preside over conciliation and the trial. On the other hand, if potential gains for parties are high in the case of winning the court case, and if court rulings cannot be sufficiently predictable in advance, considering the behaviour of parties during the conciliation stage in court proceedings might facilitate settlements.

### *Reducing the cost of participating in court or tribunal proceedings*

When disputes proceed to a court or tribunal hearing, there are a number of ways to reduce parties' costs of participating. One of the major costs for the parties is hiring a lawyer or advocate. Parties can usually represent themselves or be represented by a trade union, employer organisation or other advocate. Trade unions and employer organisations often provide free or subsidised advice and legal representation to members and legal aid may also be available for parties with few financial resources, and when legal representation in mandatory, legal aid is always offered (see Table 2.2).

Simplified procedures make it easier and less daunting for parties to represent themselves. Nevertheless, many employees and employers appearing in dismissal cases are represented by a lawyer. The limited empirical evidence available suggests that legal representation has little impact on court outcomes in labour disputes. Latreille (2007) finds

that employers with legal representation are more likely to make a settlement offer in UK employment tribunal cases, possibly because legal advice reduces excess optimism about the likelihood of succeeding at trial. However, there is no impact of representation on the likelihood that employees will accept a settlement offer. Harcourt (2000) finds that hiring a lawyer in Canadian arbitration and labour board cases only helps an employee to win the case if the employer does not hire a lawyer. For employers, hiring a lawyer only prevents an employee from winning when they have hired a lawyer, but has no impact on the likelihood of winning if the employee has not hired a lawyer. If the main benefit of legal representation is in improving information to inform settlement decisions, courts and tribunals could help reduce costs by providing accurate information to parties about the likelihood and outcome of succeeding at trial to help parties make better decisions about pre-trial settlement without resorting to costly legal advice.

Kritzer (2008) examines the use of lawyers in civil (including employment) cases in seven countries (Australia, Canada, England and Wales, Japan, the Netherlands, New Zealand, and the United States). He finds very little evidence that the probability of using a lawyer increases with income, suggesting that reasons other than affordability play a role in determining representation. Far fewer parties use a lawyer in employment disputes than in other civil disputes (e.g. divorce, housing), which may indicate that the simplified procedures adopted in labour disputes in most countries make it easier for parties to appear unrepresented.

In around half of OECD countries, the losing party pays court and/or legal costs for the winning party. Such arrangements can reduce the workload of courts or tribunals by discouraging frivolous cases and encouraging early settlement (Kessler and Rubinfield, 2007). The rise in lawfulness and availability of contingent-fee arrangements (where lawyers are only paid if there is a payout made in the case) has raised concern about an increase in labour law complaints, but research is inconclusive on this issue. On the one hand, a study by the New Zealand Department of Labour found no evidence that contingent-fee arrangements have lead to a dramatic increase in disputes, although they might slightly delay settlement in cases that use them. Lawyers are reluctant to commit much effort to meritless claims and contingent-fee arrangements play an important role in providing legal representation to low-income employees (New Zealand Department of Labour, 2008). Contingent-fee cases are more common in UK employment tribunal cases where employees do not have trade union representation, or in high-value cases. In contrast to New Zealand, contingent-fee cases in the United Kingdom are more likely to be settled than pursued to a full hearing (Hammersley et al., 2004). On the other hand, there is some evidence, based on US-Canada comparisons, that the "loser pays" system of awarding trial costs is more efficient in discouraging unfounded lawsuits than contingency fees (Nielsen, 1999).

## Conclusions

This chapter has presented a review of employment protection legislation – including provisions established by national or branch-level collective agreements and case law – across OECD countries and selected emerging economies, relying on updated and revised EPL indicators for 2013 (2012 for non-OECD G20 countries). One clear fact that emerges from the chapter is that, since the onset of the recent economic crisis, a large number of countries with relatively strict EPL undertook some action to relax their regulations on individual or collective dismissals, thereby reducing the gap in the stringency of regulations affecting

permanent and temporary contracts. In some cases, notably in Estonia, Greece, Italy, Portugal, the Slovak Republic and Spain, the breadth of reforms was significant. These developments reinforce a tendency that emerged since the beginning of this century and is in marked contrast with the typical trend of the 1990s, whereby a number of countries implemented partial reforms of employment protection legislation, in which regulations on temporary contracts were loosened while maintaining stringent restrictions on regular contracts, thereby contributing, in many cases, to the emergence of dual labour markets. Based on a large theoretical and empirical literature, summarised in the chapter, it can be expected that this new wave of reforms will increase labour reallocation and yields dividends in terms of job creation as well as efficiency and productivity growth in the near future. This should also help reducing labour market duality and provide more opportunities to outsiders to get into career job paths. In addition, the evidence also suggests that a number of workers will benefit from these reforms because greater job creation will allow better matches and higher wage premia to job change.

However, not all workers are likely to gain from these reforms in the same way. In particular, the evidence also suggests that reforms involving the relaxation of overly strict regulatory provisions on individual and collective dismissals are likely to increase the number of dismissed workers. Even if the evidence suggests that, in normal times those who lose their jobs in the aftermath of these reforms – but would have not lost their job otherwise – are likely to find another job relatively quickly, these workers are nonetheless likely to experience income losses both during their search for another job and at re-employment (see Chapter 4). Moreover, in the current context as of mid 2013 with labour demand remaining weak in many OECD countries, finding a job is likely to be harder, due to labour market congestion, and wage penalties at re-employment larger. For equity and political-economy reasons, therefore, it is important that governments consider putting in place a comprehensive policy mix to reduce these individual losses, including adequate unemployment-benefit schemes – where, however, eligibility is conditional on strictly enforced work-availability conditions – coupled with effective re-employment services for jobseekers.

### *Notes*

1. Similar considerations are suggested by Soskice (1997) and Hall and Soskice (2001) when comparing innovation patterns in Germany with those in the United Kingdom and the United States. While Germany mainly specialises in incremental innovation, the United Kingdom and the United States specialise in emerging radically new technologies. These two models require different types of labour market regulations, with stable and co-operative relationships between employers and employees supporting the incremental path. However, as suggested by Wasmer (2006), by inducing substitution of specific for general skills, firing restrictions may have a negative effect on productivity in the presence of major shocks, when workers need to be reallocated across industries, thereby making industry-specific skills useless.
2. This result, however, is based on an estimator (the Fixed Effect Vector Decomposition – FEVD) whose validity has been seriously questioned in the econometric literature (Greene, 2010).
3. The academic literature typically does not distinguish between standard fixed-term contracts and temporary-work-agency employment. As the share of workers on standard fixed-term contracts is much larger than that of temporary-work-agency employment (see the subsection on "Regulation of temporary contracts in 2013" in Section 2 below), the empirical findings reviewed here are likely to hold for fixed-term contracts, while no firm conclusion can be drawn as regards temporary-work-agency employment.
4. See e.g. Neal (1995), Gregory and Jukes (2001), Kletzer and Fairlie (2003), von Wachter and Bender (2006), Schmieder et al. (2012) and Chapter 4.

5. By contrast, additional employment protection provided by firm-level collective agreements or individual contracts is not taken into account, because this is viewed as the result of unconstrained negotiation among parties.
6. Country notes describing prevailing regulations in each country and the details concerning measurement of sub-components and the procedure used to aggregate the indicators are available at *www.oecd.org/employment/protection*.
7. While, the OECD Secretariat retains the whole responsibility for the revised database, the contribution of Alexander Muravyev for the revision and update of EPL data concerning the Russian Federation is gratefully acknowledged. Qualitative information on a number of other countries, although limited to statutory law, can be found on the ILO EPLex website.
8. This scoring algorithm can be criticised for not giving enough weight to the real burden that each component represents for employers. Indeed, the arbitrariness of this procedure led a few researchers to try to measure dismissal costs directly, mostly based on quantifying the mandatory payments and notice periods as a percentage of labour costs (see, for example, Heckman and Pages, 2004). The drawback of this alternative method is that it is highly data-intensive, generates somewhat endogenous indicators and can hardly be extended to all components that represent a cost for employers. Moreover, evidence suggests that the cross-country rank correlation between OECD indicators and indicators obtained with this method is very high (see Venn, 2009). A re-assessment of the scoring grid for each component, as well as of the weights used to aggregate them, is probably warranted but it is left for future work.
9. This section focuses only on regulations in force on 1 January 2013. See the next section for reforms enacted in 2013.
10. Excluding the United States, there is a significant negative correlation between average indicators of notice periods and severance pay (correlation coefficients are -0.41 on the whole country sample and -0.36 if it is restricted to OECD countries). This correlation is stronger for long-service employees, while notice and severance pay are substantially orthogonal at nine months of job tenure.
11. The cases of Belgium and the Czech Republic are somewhat different, however. While for white-collar workers Belgium is characterised by high statutory notice periods that are nonetheless steeply increasing with tenure, in the Czech Republic a flat period of notice of two months is imposed for all dismissals. If this is below the OECD average at high tenure, it represents a very high value at low tenure. A similar length of the mandatory notice period before one completed year of service can be found in only three other OECD countries (Belgium, Luxembourg and, because of collective agreements, Iceland).
12. China also has similar regulations.
13. In Chile, the scheme accounts for only about 20% of the amount due by the employer upon fair dismissal. In Brazil, dismissal can be with or without justified reason (*com justa causa* or *sem justa causa*). The latter covers all possible grounds for dismissal (including no reason) except misconduct and force majeure, and typically accounts for an overwhelming share of all dismissals (see e.g. DIEESE, 2011). The balance in their individual account scheme can be accessed by workers in the case of unjustified dismissal but employers must top it up by an additional 40%. Moreover, in this case, employers must pay as social security contributions an additional 10% of the total amount deposited in the fund.
14. In a limited number of countries (e.g. Japan, Switzerland, the United Kingdom and some United States), notification of dismissal can be oral but a written statement stating the reasons for dismissal must be provided to the worker upon request.
15. In most countries, however, previous warning is required in the case of dismissal for personal reasons. Since often no information is available to assess how much time after such a warning notice can be served, the previous warning requirement is evaluated at six days in the indicators, even though delays involved are often longer. As a result, the figures on additional delays before notice can start presented here are somewhat underestimated.
16. The United States, Argentina, Brazil and most Canadian provinces are the only partial exceptions. In these countries or provinces, the principle that an employment relationship can be terminated even for no reason dominates (the so-called *employment-at-will* doctrine). However, individual and collective labour contracts can restrict the reasons for which dismissal is admissible in these countries. Moreover, in the United States, case law exceptions have eroded the employment-at-will doctrine (see the previous section). Finally, protection against discrimination and/or violation of civil right legislation is in all cases granted in these countries.

17. In the Russian Federation, a worker can also be fired in the case of insufficient skills, but this needs to be proved by an internal certification. The latter requires establishing a special internal regulation on the certification procedure, informing the workers concerned that a certification regarding them will be issued, and establishing an attestation committee that includes a trade union member (if a union organisation exists in the firm). Even if a worker is found not suitable for a job at the end of this procedure, the employer has to offer him another job before he/she can be dismissed.

18. Indeed, Bassanini and Garnero (2013) find that the contribution of compensation for unfair dismissal to the cross-country distribution of gross worker flows is close to nil.

19. These figures refer to estimated typical compensation at 20 years of tenure. Ordinary severance pay and payments in lieu of notice periods, if any, must be added to them.

20. There are, however, exceptions to this pattern. In Denmark, for example, collective agreements typically specify up to a nine-month probationary period for blue collars, while for white collars the trial period is three months.

21. In Poland, there is no exemption period on regular contracts. However, an open-ended employment relationship is customarily preceded by a non-renewable employment contract for a trial period (*umowa o prac na okres próbny*) for a duration of no more than three months, which, in contrast with other types of fixed-term contracts, can be terminated with notice before the end date even if no special provision is added in the contract.

22. Once three outliers (China, India and Indonesia) among non-OECD member countries are excluded, the correlation coefficient among indicators for reinstatement and the length of the period in which a claim is possible is -0.39, statistically significant at the 5% level.

23. In Figure 2.3, for the sole purpose of calculating the indicator of difficulty of dismissal, missing values of specific subcomponents are set equal to the average of other non-missing subcomponents for the same country, excluding the maximum time for claim insofar as the latter indicator is typically not or negatively correlated with the other indicators (see above).

24. Among OECD countries, the cross-country average of the indicator of difficulty of dismissal is 2.31 (with standard deviation equal to 0.76).

25. Note, however, that the indicator of difficulty of dismissal does not take into account enforcement considerations, such as institutions affecting the duration of court proceedings and the number of cases that end up in the courts, which inevitably co-determine dismissal costs and the effectiveness of workers' protection (see Section 4).

26. This indicator is obtained as the simple average of the three intermediate indicators of: i) procedural inconveniences; ii) notice and severance pay; and iii) difficulty of dismissal.

27. The OECD average of EPR is 2.04 and its standard deviation 0.56.

28. However, in Portugal, the only additional, effective burden in the case of collective dismissals is represented by the notification requirement to the labour authority and the stricter obligations concerning negotiations whith trade unions.

29. However, while redundancy procedures are more cumbersome in the case of collective dismissals in Italy, collective dismissals are less likely to be considered substantively unfair. In fact, while judges typically examine the validity of the economic justification for redundancy in the case of individual dismissal, in the case of collective dismissals, it is an established court practice that judges verify only that the procedure has been respected, except in cases of hidden personal reasons (see Cass. 6/7/2000, No. 9045; Trib. Vallo della Lucania, 1/2/2011, est. de Angelis; as well as Cass. 11/03/2011, No. 5888 and references therein). As a consequence, while possibly higher on average, dismissal costs are more predictable in the case of collective dismissals.

30. For example, in all the other countries where the lowest threshold is at five workers or more, the reference period is 30 days (Austria, Estonia, Germany, Ireland and Latvia), except in Sweden where collective-dismissal procedures apply for the simultaneous dismissal of five workers or dismissal of 20 workers within 90 days.

31. However, social partners signed a framework agreement in January 2013, which envisages a significant reduction in these delays. This agreement will be extended by law during the course of 2013 (see Section 3 below).

32. The correlation coefficient is -0.27 (-0.36 if countries with no additional restrictions are excluded), significant at the 10% statistical level.

33. Although, in general, country rankings have been shown to be little dependent on the weights given to each component (see e.g. Venn, 2009), it can be argued that the weight of EPC is too high and in some cases can produce counter-intuitive results. Consider, for example, the case of a hypothetical country where notifications to public employment services and trade unions are required, even if only one worker is concerned. Consider then a reform in which these notification requirements are lifted and a simple notification to the worker is left for individual dismissal, while procedures remain unchanged for collective dismissals. There is no doubt that this would represent a relaxation of employment protection against individual dismissals, albeit perhaps very weak. It would also increase the number of *additional* restrictions on collective dismissals (with respect to individual dismissals). The overall stringency of employment protection for regular workers should however go down (or at best remain unchanged). Consistently, the EPR indicator would go down by one third of a point, while the EPC indicator would go up by 1.5 points. But inconsistently, the EPRC indicator would go up by almost 0.2 points. If relative weights were slightly modified so as to neutralise this inconsistency, the ranking of countries would remain essentially the same (the Spearman rank correlation coefficient between the two distributions is 0.96), but the United States would be, by far, the country at the bottom of the distribution.

34. For the purpose of this chapter, a FTC is defined as a generic employment contract with a precisely specified end date (in the form of day, month and year at which the employment relationship is set to end, if the contract is not renewed). By contrast, TWA employment is defined here as the employment of workers with a contract under which the employer (i.e. the agency), within the framework of its business or professional practice, places the employee at the disposal of a third party (i.e. the user firm) in order to perform work (i.e. the assignment) under supervision and direction of that user firm by virtue of an agreement for the provision of services between the user firm and the agency. The extension of indicators to cover regulations for other temporary and atypical contracts is instead left for future research.

35. As regards legislation concerning regular contracts, enforcement issues are more frequently relevant in low-income and emerging economies. For example, a study of labour tribunal cases in Mexico finds that 60% of monetary awards made to employees in unfair dismissal cases are not collected. The process of enforcing payment is time-consuming. The winning employee must accompany a court clerk to the firm's place of business to serve notice. If payment is still not made, an additional hearing is required to seize the firm's assets in order to pay the award. Workers with large payouts (based on long tenure) compared with the fixed costs of enforcement are more likely to successfully collect their compensation (Kaplan and Sadka, 2011). Similarly, in Chile, according to a survey conducted in the early 2000s, only 44% of the unemployed dismissed for economic reasons claimed that they had received some form of compensation. Among those who should have received a payment but did not, 22% said that they had reached an agreement with their employer, while 44% stated that the employer had simply refused to pay (Sehnbruch, 2006). For a general discussion concerning enforcement issues in OECD countries, see Bertola et al. (2000).

36. In some instances, these restrictions apply only in the case of *successive contracts* for the *same job*. For example, in France, a worker can be employed repeatedly by the same company on a standard fixed-term contract if this is done on different posts each time. In other cases, it is possible to *derogate* from restrictions imposed by regulations if the justification of the fixed-term contract changes. For instance, in Sweden, the two-year maximum cumulative duration of contracts applies for each type of contract, so that one worker can be employed on fixed-term contracts for more than two years by changing the reason for a fixed-term contract, provided that these reasons can be successfully defended in courts (see Engblom, 2008).

37. In Japan, however, even if there are no limits for the cumulative duration of FTCs, each contract cannot be concluded for a term exceeding three years, except if concluded for the completion of a specified project (Labour Standards Act – 労働基準法 – Article 14).

38. According to Boston Consulting Group and CIETT (2012), when questioned about the added value of agency work, user firms make reference to both a higher degree of flexibility (76%) and a much faster hiring process (47%) compared with fixed-term contracts.

39. In Turkey, Saudi Arabia and, until the 2012 reform, Mexico, TWA employment is even illegal, in the sense that the tripartite relationship – characterised by an employment contract between the worker and the agency and a commercial contract between the agency and the user firm that places the worker under the direct supervision of the user firm – is not recognised by the law and the user firm is considered, in terms of all legal implications, the employer of the worker.

40. The Spearman rank correlation coefficient, in this case, is 0.79.

41. Among other emerging economies, regulations are also particularly restrictive in Brazil, where the maximum duration of assignments is limited to three months, except with special government permission.

42. EU Directive 2008/104/EC.

43. Similar considerations also apply as regards the comparison of the cross-country distributions of the EPT and EPRC indicators.

44. Reinstatement can now be ordered only in three cases: i) when dismissal is based on discrimination; ii) when it is based on reasons for which it is explicitly forbidden in collective agreements; or iii) when the facts adduced by the employer to justify the dismissal are manifestly false. In addition, the Italian reform also touched other aspects of regulation that are not considered in OECD indicators, such as the introduction of a lighter and faster procedure for dispute resolution; the suppression of the right of employers to terminate certain atypical contracts at will; and the enforcement of legal tests for the presumption of an employment relationship in order to identify cases of sham self-employment.

45. In addition, a new type of employment contract was created in 2012, the Permanent Employment Contract to Support Entrepreneurs available exclusively to firms with less than 50 employees that did not make unfair or collective dismissals in the six months preceding hiring. This contract sets the duration of the trial period to 12 months.

46. China also significantly raised the degree of stringency of EPL in 2008 by lengthening the maximum time to file a complaint on unfair dismissal from 2 to 12 months. Moreover, some Brazilian regional courts have recently handed down rulings in which, for large mass dismissals, employers have been required to make additional severance payments in the absence of consultations with trade unions before dismissals (see e.g. Muller, 2011). The best known of these cases was overturned by a subsequent Superior Labour Court decision in 2009. Yet, the Court established, for future cases, that negotiations among social partners must precede a mass dismissal (see e.g. Superior Labour Court decision TST-RODC 309/2009-000-15-00.4).

47. Information on regulation for collective dismissals is not available in this period.

48. This section draws heavily from Venn (2009), although underlying data have been revised and updated.

49. While this chapter focuses mainly on the costs of procedures of dispute resolution, corruption and evasion mean that laws are not always adequately enforced, regardless of the cost. This problem is likely to be more acute in lower-income countries lacking adequate enforcement resources (see e.g. Venn, 2009).

50. The specialisation index is the unweighted average of the following indicators from Table 2.2: Court: equal to 0 if dismissal cases are heard in ordinary civil court; 0.5 if heard in a special branch of ordinary court; 1 if heard in a specialised court. Judges: equal to 0 if only professional judges hear dismissal cases; 1 if lay judges participate. Procedures: equal to 0 if ordinary civil procedures; 1 if simplified procedures for dismissal cases. Appeals: equal to 0 if appeals are heard in ordinary court; 1 if heard in specialised court.

51. None of the studies mentioned, however, controls for unobservable characteristics that affect both the likelihood that cases be included in a study and the likelihood that they be resolved early.

52. See, for example, Cass.soc., 30 January 2013, No. 11-22332.

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# ANNEX 2.A1

## *Revisions of the EPL indexes*

Table 2.A1.1. **Revision of the EPL indexes, 2008**

| | Item number | Item name | Published score | Revised score |
|---|---|---|---|---|
| Australia | 1 | Notification procedures | 2 | 1 |
| | 8 | Possibility of reinstatement following unfair dismissal | 3 | 2 |
| Austria | 9 | Maximum time for claim | 1 | 0 |
| | 13 | Types of work for which TWA employment is legal | 1.5 | 0.75 |
| Belgium | 1 | Notification procedures | 1 | 2 |
| | 2 | Delay involved before notice can start | 1 | 2 |
| | 7 | Compensation following unfair dismissal | 3 | 0 |
| | 10 | Valid cases for use of fixed-term contracts | 1 | 0 |
| | 20 | Additional delays involved in case of collective dismissals | 3 | 4 |
| | 21 | Other special costs to employers in case of collective dismissals | 3 | 6 |
| Canada | 6 | Length of trial period | 4 | .. |
| | 16 | TWA: Authorisation and reporting obligations | 0.6 | 0.52 |
| | 18 | Definition of collective dismissal | 1.5 | 2.745 |
| | 19 | Additional notification requirements in case of collective dismissals | 6 | 4.29 |
| | 20 | Additional delays involved in case of collective dismissals | 3 | 4 |
| | 21 | Other special costs to employers in case of collective dismissals | 0 | 0.84 |
| Chile | 4 | Severance pay at 4 years tenure | 6 | 5 |
| | 4 | Severance pay at 20 years tenure | 4 | 3 |
| | 8 | Possibility of reinstatement following unfair dismissal | 0 | 1 |
| | 12 | Maximum cumulated duration of successive fixed-term contracts | 3 | 4 |
| | 14 | Restrictions on the number of renewals of TWA assignments | 2 | 4 |
| | 16 | TWA: Authorisation and reporting obligations | 0 | 1 |
| Czech Republic | 15 | Maximum cumulated duration of TWA assignments | 2 | 4 |
| Denmark | 1 | Notification procedures | 2 | 4 |
| | 2 | Delay involved before notice can start | 1 | 2 |
| | 6 | Length of trial period | 2 | 3 |
| | 7 | Compensation following unfair dismissal | 2 | 1 |
| | 11 | Maximum number of successive fixed-term contracts | 5 | 4 |
| | 12 | Maximum cumulated duration of successive fixed-term contracts | 2 | 3 |
| | 20 | Additional delays involved in case of collective dismissals | 2 | 1 |
| Estonia | 1 | Notification procedures | 2 | 4 |
| | 3 | Length of the notice period at 9 months tenure | 5 | 4 |
| | 12 | Maximum cumulated duration of successive fixed-term contracts | 0 | 1 |
| | 19 | Additional notification requirements in case of collective dismissals | 6 | 0 |
| Finland | 10 | Valid cases for use of fixed-term contracts | 4 | 2 |
| | 13 | Types of work for which TWA employment is legal | 0 | 0.75 |
| | 15 | Maximum cumulated duration of TWA assignments | 0 | 1 |
| | 19 | Additional notification requirements in case of collective dismissals | 3 | 0 |

Table 2.A1.1. **Revision of the EPL indexes, 2008** *(cont.)*

| | Item number | Item name | Published score | Revised score |
|---|---|---|---|---|
| France | 4 | Severance pay at 20 years tenure | 3 | 2 |
| | 9 | Maximum time for claim | 5 | 6 |
| | 19 | Additional notification requirements in case of collective dismissals | 0 | 3 |
| | 20 | Additional delays involved in case of collective dismissals | 1 | 3 |
| Germany | 4 | Severance pay at 4 years tenure | 2 | 1 |
| | 4 | Severance pay at 20 years tenure | 2 | 1 |
| | 14 | Restrictions on the number of renewals of TWA assignments | 4 | 2 |
| | 17 | Equal treatment of TWA workers | 6 | 3 |
| | 20 | Additional delays involved in case of collective dismissals | 3 | 1 |
| | 21 | Other special costs to employers in case of collective dismissals | 3 | 4.5 |
| Greece | 2 | Delay involved before notice can start | 0 | 1 |
| | 6 | Length of trial period | 5 | 6 |
| | 7 | Compensation following unfair dismissal | 1 | .. |
| | 10 | Valid cases for use of fixed-term contracts | 6 | 4 |
| | 11 | Maximum number of successive fixed-term contracts | 2 | 3 |
| Hungary | 7 | Compensation following unfair dismissal | 2 | 3 |
| | 9 | Maximum time for claim | 1 | 0 |
| | 14 | Restrictions on the number of renewals of TWA assignments | 4 | 2 |
| | 20 | Additional delays involved in case of collective dismissals | 1 | 3 |
| Iceland | 17 | Equal treatment of TWA workers | 6 | 3 |
| Ireland | 1 | Notification procedures | 3 | 2 |
| | 7 | Compensation following unfair dismissal | 4 | 2 |
| | 18 | Definition of collective dismissal | 4.5 | 6 |
| | 19 | Additional notification requirements in case of collective dismissals | 3 | 6 |
| Israel | 1 | Notification procedures | 3 | 4 |
| Italy | 2 | Delay involved before notice can start | 0 | 2 |
| | 3 | Length of the notice period at 9 months tenure | 1 | 4 |
| | 3 | Length of the notice period at 4 years tenure | 2 | 3 |
| | 3 | Length of the notice period at 20 years tenure | 1 | 2 |
| | 5 | Definition of justified or unfair dismissal | 0 | 4 |
| | 6 | Length of trial period | 6 | 4 |
| | 7 | Compensation following unfair dismissal | 3 | 4 |
| | 8 | Possibility of reinstatement following unfair dismissal | 4 | 6 |
| | 16 | TWA: Authorisation and reporting obligations | 4 | 6 |
| | 21 | Other special costs to employers in case of collective dismissals | 6 | 3 |
| Japan | 1 | Notification procedures | 3 | 2 |
| | 8 | Possibility of reinstatement following unfair dismissal | 6 | 2 |
| | 10 | Valid cases for use of fixed-term contracts | 1 | 0 |
| | 11 | Maximum number of successive fixed-term contracts | 0 | 1 |
| | 17 | Equal treatment of TWA workers | 3 | 1.5 |
| | 19 | Additional notification requirements in case of collective dismissals | 3 | 6 |
| | 20 | Additional delays involved in case of collective dismissals | 0 | 1 |
| | 21 | Other special costs to employers in case of collective dismissals | 0 | 3 |
| Korea | 1 | Notification procedures | 3.5 | 3 |
| | 6 | Length of trial period | .. | 4 |
| | 13 | Types of work for which TWA employment is legal | 2.25 | 3 |
| | 14 | Restrictions on the number of renewals of TWA assignments | 2 | 4 |
| | 15 | Maximum cumulated duration of TWA assignments | 2 | 4 |
| Luxembourg | 8 | Possibility of reinstatement following unfair dismissal | 6 | 0 |
| | 16 | TWA: Authorisation and reporting obligations | 3 | 2 |
| | 18 | Definition of collective dismissal | 4.5 | 6 |
| | 19 | Additional notification requirements in case of collective dismissals | 0 | 3 |
| | 20 | Additional delays involved in case of collective dismissals | 5 | 2 |
| | 21 | Other special costs to employers in case of collective dismissals | 6 | 4.5 |

Table 2.A1.1. **Revision of the EPL indexes, 2008** *(cont.)*

| | Item number | Item name | Published score | Revised score |
|---|---|---|---|---|
| Mexico | 4 | Severance pay at 9 months tenure | 6 | 2 |
| | 5 | Definition of justified or unfair dismissal | 6 | 5 |
| | 6 | Length of trial period | .. | 6 |
| | 8 | Possibility of reinstatement following unfair dismissal | 2 | 3 |
| | 9 | Maximum time for claim | .. | 2 |
| | 16 | TWA: Authorisation and reporting obligations | .. | 6 |
| | 17 | Equal treatment of TWA workers | .. | 6 |
| | 20 | Additional delays involved in case of collective dismissals | 0 | 1 |
| | 21 | Other special costs to employers in case of collective dismissals | 3 | 4.5 |
| Netherlands | 1 | Notification procedures | 4 | 5 |
| | 4 | Severance pay at 4 years tenure | 4 | 3 |
| | 4 | Severance pay at 20 years tenure | 3 | 4 |
| | 12 | Maximum cumulated duration of successive fixed-term contracts | 0 | 1 |
| | 14 | Restrictions on the number of renewals of TWA assignments | 4 | 2 |
| | 15 | Maximum cumulated duration of TWA assignments | 1 | 0 |
| | 17 | Equal treatment of TWA workers | 6 | 4.5 |
| New Zealand | 14 | Restrictions on the number of renewals of TWA assignments | 4 | 2 |
| | 19 | Additional notification requirements in case of collective dismissals | 1.5 | 0 |
| Norway | 1 | Notification procedures | 2 | 3 |
| | 6 | Length of trial period | 4 | 3 |
| | 9 | Maximum time for claim | 3 | 2 |
| | 14 | Restrictions on the number of renewals of TWA assignments | 4 | 3 |
| | 17 | Equal treatment of TWA workers | 0 | 1.5 |
| | 19 | Additional notification requirements in case of collective dismissals | 6 | 4.5 |
| Poland | 4 | Severance pay at 9 months tenure | 0 | 1 |
| | 4 | Severance pay at 4 years tenure | 0 | 2 |
| | 4 | Severance pay at 20 years tenure | 0 | 1 |
| | 6 | Length of trial period | 5 | 4 |
| | 21 | Other special costs to employers in case of collective dismissals | 6 | 3 |
| Portugal | 2 | Delay involved before notice can start | 2 | 3 |
| | 3 | Length of the notice period at 9 months tenure | 2 | 6 |
| | 3 | Length of the notice period at 4 years tenure | 2 | 4 |
| | 5 | Definition of justified or unfair dismissal | 4 | 5 |
| | 7 | Compensation following unfair dismissal | 3 | 4 |
| | 8 | Possibility of reinstatement following unfair dismissal | 4 | 6 |
| | 9 | Maximum time for claim | 2 | 1 |
| | 13 | Types of work for which TWA employment is legal | 3 | 2.25 |
| | 17 | Equal treatment of TWA workers | 6 | 4.5 |
| Slovak Republic | 4 | Severance pay at 9 months tenure | 4 | 2 |
| | 4 | Severance pay at 4 years tenure | 3 | 2 |
| | 7 | Compensation following unfair dismissal | 2 | 1 |
| | 11 | Maximum number of successive fixed-term contracts | 0 | 4 |
| | 13 | Types of work for which TWA employment is legal | 0 | 3 |
| Slovenia | 1 | Notification procedures | 6 | 4.5 |
| | 2 | Delay involved before notice can start | 2 | 1 |
| | 7 | Compensation following unfair dismissal | 3 | 2 |
| | 9 | Maximum time for claim | 1 | 0 |
| | 12 | Maximum cumulated duration of successive fixed-term contracts | 2 | 3 |
| | 13 | Types of work for which TWA employment is legal | 1.5 | 0.75 |
| | 20 | Additional delays involved in case of collective dismissals | 1 | 3 |

Table 2.A1.1. **Revision of the EPL indexes, 2008** *(cont.)*

| | Item number | Item name | Published score | Revised score |
|---|---|---|---|---|
| Spain | 1 | Notification procedures | 4 | 3 |
| | 4 | Severance pay at 9 months tenure | 2 | 1 |
| | 4 | Severance pay at 4 years tenure | 5 | 4 |
| | 4 | Severance pay at 20 years tenure | 5 | 4 |
| | 5 | Definition of justified or unfair dismissal | 2 | 4 |
| | 6 | Length of trial period | 5 | 4 |
| | 7 | Compensation following unfair dismissal | 2 | 4 |
| | 15 | Maximum cumulated duration of TWA assignments | 6 | 2 |
| | 19 | Additional notification requirements in case of collective dismissals | 3 | 4.5 |
| | 20 | Additional delays involved in case of collective dismissals | 2 | 3 |
| Sweden | 6 | Length of trial period | 4 | 3 |
| | 8 | Possibility of reinstatement following unfair dismissal | 2 | 0 |
| | 13 | Types of work for which TWA employment is legal | 0 | 0.75 |
| | 15 | Maximum cumulated duration of TWA assignments | 2 | 0 |
| | 17 | Equal treatment of TWA workers | 0 | 1.5 |
| | 20 | Additional delays involved in case of collective dismissals | 6 | 1 |
| Switzerland | 1 | Notification procedures | 1 | 2 |
| | 2 | Delay involved before notice can start | 0 | 2 |
| | 4 | Severance pay at 20 years tenure | 1 | 0 |
| | 9 | Maximum time for claim | 2 | 0 |
| | 17 | Equal treatment of TWA workers | 4.5 | 3 |
| | 20 | Additional delays involved in case of collective dismissals | 2 | 1 |
| Turkey | 7 | Compensation following unfair dismissal | 5 | 2 |
| | 9 | Maximum time for claim | 1 | 0 |
| | 16 | TWA: Authorisation and reporting obligations | .. | 6 |
| | 17 | Equal treatment of TWA workers | .. | 6 |
| | 19 | Additional notification requirements in case of collective dismissals | 0 | 3 |
| United Kingdom | 1 | Notification procedures | 2 | 2.5 |
| | 17 | Equal treatment of TWA workers | 0 | 1.5 |
| United States | 1 | Notification procedures | 0 | 0.54 |
| Brazil | 1 | Notification procedures | 0 | 2 |
| | 3 | Length of the notice period at 9 months tenure | 3 | 2 |
| | 4 | Severance pay at 9 months tenure | 0 | 1 |
| | 4 | Severance pay at 4 years tenure | 0 | 3 |
| | 4 | Severance pay at 20 years tenure | 0 | 3 |
| | 5 | Definition of justified or unfair dismissal | 6 | 0 |
| | 7 | Compensation following unfair dismissal | 1 | 0 |
| | 8 | Possibility of reinstatement following unfair dismissal | 2 | 1 |
| | 9 | Maximum time for claim | 5 | 6 |
| | 17 | Equal treatment of TWA workers | 3 | 4.5 |
| China | 4 | Severance pay at 20 years tenure | 4 | 6 |
| | 7 | Compensation following unfair dismissal | 6 | 4 |
| | 9 | Maximum time for claim | 5 | 2 |
| | 11 | Maximum number of successive fixed-term contracts | 4 | 6 |
| | 13 | Types of work for which TWA employment is legal | 3 | 1.5 |
| | 15 | Maximum cumulated duration of TWA assignments | 1 | 0 |
| | 17 | Equal treatment of TWA workers | 6 | 3 |
| India | 1 | Notification procedures | 4 | 5 |
| | 7 | Compensation following unfair dismissal | 6 | 1 |
| | 13 | Types of work for which TWA employment is legal | 3 | 2.25 |
| | 18 | Definition of collective dismissal | 0 | 0.75 |
| | 20 | Additional delays involved in case of collective dismissals | 0 | 1 |

Table 2.A1.1. **Revision of the EPL indexes, 2008** *(cont.)*

| | Item number | Item name | Published score | Revised score |
|---|---|---|---|---|
| Indonesia | 1 | Notification procedures | 6 | 5 |
| | 13 | Types of work for which TWA employment is legal | 3 | 1.5 |
| | 17 | Equal treatment of TWA workers | 0 | 3 |
| Russian Federation | 1 | Notification procedures | 3 | 4 |
| | 2 | Delay involved before notice can start | 1 | 2 |
| | 3 | Length of the notice period at 9 months tenure | 6 | 3 |
| | 3 | Length of the notice period at 4 years tenure | 4 | 2 |
| | 4 | Severance pay at 9 months tenure | 4 | 3 |
| | 5 | Definition of justified or unfair dismissal | 4 | 5 |
| | 11 | Maximum number of successive fixed-term contracts | 0 | 1 |
| | 13 | Types of work for which TWA employment is legal | 1.5 | 0 |
| | 14 | Restrictions on the number of renewals of TWA assignments | 2 | 3 |
| | 17 | Equal treatment of TWA workers | 0 | 3 |
| | 18 | Definition of collective dismissal | 1.5 | 3 |
| | 19 | Additional notification requirements in case of collective dismissals | 1.5 | 0 |
| South Africa | 5 | Definition of justified or unfair dismissal | 0 | 1 |

*Note:* 2009 instead of 2008 for France and Portugal. Published scores refer to scores as published in Venn (2009).
*Source: OECD Employment Protection Database*, 2013 update; and Venn, D. (2009), "Legislation, Collective Bargaining and Enforcement: Updating the OECD Employment Protection Indicators", *OECD Social, Employment and Migration Working Papers*, No. 89, OECD Publishing, *http://dx.doi.org/10.1787/223334316804*.

# ANNEX 2.A2

## *Country notes for Table 2.2*

**Australia:** Refers to cases heard in the Fair Work Australia (FWA). About 2% of cases are heard in federal courts. Appeals are heard by a full bench of the FWA. Higher appeals are heard by the specialised tribunal for the first appeal, then by the ordinary courts for higher appeals. Among finalised cases in FWA during 2011-12, 81% were finalised at, or before, conciliation, 15% were finalised thereafter without requiring a decision of the tribunal, and 4% were finalised by a decision (FWA Annual Report, 2011-12). In 2011-12, 90% of applications were conciliated within 36 days and half were conciliated within 28 days (FWA Annual Report, 2011-12).

**Austria:** Vienna has a specialised labour and social security court. In cases of dismissal by reason of discrimination for disabled people there is a mandatory pre-trial conciliation and the outcome is enforceable. In cases of unfair dismissal for legally inadmissible motives (trade union or works council activity) the burden of proof is on the employee.

**Canada:** Only three jurisdictions provide a remedy for unjust dismissals. Federal: complaints of unjust dismissal can be filed with the Labour Program of Human Resources and Skill Development Canada. If mediation is unsuccessful, the Minister of Labour is to appoint an adjudicator. Quebec: complaints can be filed with the Commission des Normes du Travail, which may appoint a mediator. If the complaint is not settled, it is referred to the Commission des Relations du Travail. Free legal assistance is provided in Quebec. Complainants are expected to make use of lawyers provided by the Commission des Normes du Travail. Nova Scotia: complaints can be filed with the Director of Labour Standards for investigation and mediation. The director may make an order for compensation and/or reinstatement. Decisions of the director may be appealed to the Labour Board. Appeals: in all three jurisdictions, judicial review by ordinary courts is possible in limited circumstances.

**Chile:** When lodging a lawsuit before the labour court, conciliation under the Labour Inspector is mandatory. And the court usually considers the official meeting records in the conciliation procedure admissible evidence. In the case the employee challenges the termination before the court for wrongful dismissal, the employer has the burden of proof of the truthfulness of the facts stated in the termination letter, not being allowed to claim any different facts supporting his/her dismissal decision. In the case of dismissal violating employee´s fundamental rights at work, the judge may put the burden of proof on the employer if the preliminary evidence submitted by the employee provides sufficient indication that such violation occurred.

**Czech Republic:** Act on mediation entered into force on 9 January 2012. The mediation agreement is legally binding. But to be enforceable, it has to be included in a notary or execution act with consent to execution or be part of the conciliation process promoted by the court. The court may offer to the parties the possibility to contact a registered mediator and try to solve their dispute in a mediation agreement.

**Denmark:** Apart from the Labour Tribunal, special dismissal bodies have been set up by social partners for unfair dismissal cases for parties covered by collective agreements. The decision can be appealed to ordinary courts. Unfair dismissal cases involving employees not covered by collective agreements are heard in ordinary civil courts. The burden of proof can lie with the employer in special cases.

**Finland:** Labour courts also exist, but only hear disputes relating to collective agreements. All civil courts in Finland have simplified procedures.

**France:** Professional judges only adjudicate a judgement when lay judges are split evenly. The Labour Code – Article L1235-1 – states that both parties should provide proofs of their arguments – in particular, for the employer, proof of misconduct or proof of economic reasons for dismissal – and that, if a doubt remains, courts must rule in favour of the worker.

**Germany:** The losing party pays court costs, but not the other party's legal costs. If the case is resolved in conciliation, court costs other than the initial filing fee are usually waived.

**Greece:** Disputes about dismissal are subject to the special labour disputes procedure in the magistrates or court of first instance with a single judge, depending on the amount involved. Parties can request that the Labour Inspectorate mediate the dispute at no cost.

**Hungary:** Most court costs are borne by the state. Only a few large firms have workplace-level dispute resolution processes in place. The labour cases can be solved through court proceeding or out-of court proceeding – both before the competent court. The Hungarian Labour Mediation and Arbitration Service (MKDSZ) deals with pre-court and pre-trial conciliation, and gave advice in 37 cases in 2011. The average time for decision in labour cases in local courts was 234 days. In cases where the court of second instance was involved it was 586 days (in 2011). In 2011, 24 704 labour cases were brought before the local court and 3 633 before the court of second instance. The number of labour cases per 1 000 workers was 6.0 in 2011.

**Iceland:** Decisions of the labour court can only be appealed to the Supreme Court in exceptional circumstances (e.g. disputes about Labour Court jurisdiction).

**Ireland:** Pre-court dispute resolution refers to Rights Commissioners. Court/tribunal refers to the Employment Appeals Tribunal. The burden of proof is on the employee (complainant) in case of claims for "constructive" unfair dismissal. In 2012, 80% of determinations in the Employment Appeals Tribunal were issued within ten weeks of a hearing.

**Israel:** If it is addressed by consent to Alternative Dispute Resolution (ADR) processes, it is forbidden to use their proceedings in the Labour Courts. In cases of discrimination, the burden of proof shifts to the employer, if the worker proved an allegedly discrimination. Appeals from the District Labour Court will be addressed to the National Labour Court.

**Italy:** In the case of redundancy parties must attend pre-trial conciliation organised by the Provincial Labour Office or through dispute settlement procedures set out in collective agreements. If no settlement is reached, the behaviour of parties in the conciliation stage is considered in court rulings.

**Japan:** Parties can submit their claim to a Labour Tribunal (LT) in a district court for mediation. If mediation fails, the LT will make a decision, which can be appealed to the district court. Parties can also file a complaint directly with the district court without using the LT procedure. The lay judges participate in the LT procedure only. Simplified procedures are applicable only in LT complaints. In principle, the employer has the burden of proof with respect to facts regarding termination of a labour contract. Usually, a defeated party has to pay court/tribunal costs in a civil litigation proceeding, but each party bears his/her own costs in a LT proceeding.

**Korea:** Labour tribunal refers to the Labor Relations Commission (LRC). Disputes can also be filed in civil courts, but most are heard in the LRC because it is quicker and less costly. In unfair dismissal lawsuits, employers have to prove that dismissal is justifiable. Costs may be charged only in court procedures, not in LRC procedures.

**Luxembourg:** The parties may apply to the Standing Committee on Employment within the Labour Inspectorate to conciliate an individual labour dispute. If the parties agree to the conciliated recommendation, this ends the dispute.

**Mexico:** An employee can make a complaint to the Public Labor Defender's Office, which will give advice and attempt to resolve the dispute amicably. If the dispute is not resolved, it can be dealt with by the Conciliation and Arbitration Boards.

**Netherlands:** An employee can challenge a dismissal authorised by the Employee Insurance Agency (UWV) or a summary dismissal in the civil courts. There is no legally required mediation, but courts may refuse to give a verdict if they think that the parties have not done enough to resolve the problem themselves.

**New Zealand:** Mediation by the government (the Department of Labour was merged into the Ministry of Business, Innovation and Employment on 1 July 2012) is possible. If an agreement is not reached during the mediation, parties can agree to let the mediator determine the outcome, which is legally binding. Otherwise, the dispute can be referred to the Employment Relations Authority (ERA). Parties may attend mediation voluntarily before applying to the ERA to make a determination on a matter. Reviews by the Employment Court are not appeals, but involve full judicial hearing of the original dispute. The settlement rate for all mediation services completed in 2011 was 80%.

**Poland:** The employee can request that a matter be heard by the workplace conciliation committee. If no agreement can be reached, the matter is referred to the district court. Pre-trial mediation is on voluntary basis, but the court may direct the parties to mediation by order. The employee/complainant has the burden of proof except for the cases of discrimination. The ratio of settlement by mediation is about 0.1% of the entire labour cases in 2011.

**Portugal:** Judicial reviews on the regularity and lawfulness of dismissals are special proceedings, which are considered of urgent nature by the Code of Labour Procedure.

**Slovak Republic:** The parties must attempt to settle the dispute at the workplace prior to making a complaint to the district court, but there is no institutionalised process. There is a pilot project in selected courts whereby the court will suggest mediation as an alternative to using the court.

**Slovenia:** Pre-court arbitration and mediation are regulated by the Arbitration Act (9.8.2008) and Mediation in Civil and Commercial Matters Act (21.6.2008), respectively. All Alternative Dispute Resolution (ADR) proceedings are confidential, unless the parties agree otherwise. As regards pre-trial mediation/conciliation, the Act on ADR in Judicial Matters

was adopted in 2009. It is applied in all disputes arising from commercial, labour, family and other civil relationships. The employer has to cover the costs of the procedure, irrespective of its outcome, except in the case of frivolous lawsuits or unconstructive behaviour during the procedure.

**Spain:** Administrative conciliation is compulsory before filing a claim in court and collective agreements often contain procedures for resolving disputes. The losing party pays court/tribunal costs only in appeals.

**Sweden:** Individual disputes concerning employees who are covered by a collective agreement are dealt with by the Labour Court in the first instance. Where an employee is not covered by a collective agreement or the union does not want to pursue the claim in the Labour Court, the dispute must be heard in the district court in the first instance. Disputes can only be referred to a Labour Court if there has been an attempt at negotiating a resolution at the workplace level, and, if that fails, at the national or branch level. If the case is first heard by a district court, the judgment of the district court may be appealed to the Labour Court.

**Switzerland:** Conciliation is mandatory in principle, but only after the filing of the action and optional when the amount in dispute is less than CHF 100 000 (new Federal Code of Civil Procedure as of 1 January 2011). Thirteen out of 26 cantons have Labour Courts which hear all labour disputes, or labour disputes concerning amounts up to around CHF 30 000. In the remainder (and in cantons where labour courts can only hear small claims), individual labour disputes are heard by ordinary civil courts. Labour courts generally have both lay and professional judges, except in Geneva where the court has only professional judges; ordinary courts have professional judges. There are simplified procedures. Court costs are exempted in case of dispute with an amount not exceeding CHF 30 000 and the cantons may provide fee waivers for larger amount (e.g. Geneva, free up to a value in dispute of CHF 75 000 or more).

**Turkey:** Disputes about unfair dismissals can be resolved in arbitration if the parties agree or if outlined in a collective agreement.

**United Kingdom:** Unfair dismissal cases can also be resolved using private arbitration. In doing so, parties waive their rights to be heard in the Employment Tribunal (ET). The government funds conciliation provided by Acas (Advisory, Conciliation and Arbitration Service). From summer 2013, all prospective claimants will first submit their details to Acas before being able to lodge an ET claim. Acas will then offer parties the opportunity to conciliate. If they decline, or the conciliation fails, the matter will then be taken to tribunal. The tribunal will have no regard into conciliation proceedings, other than to make sure that the obligation to contact Acas was complied with. Fees will also be introduced for all stages of the conciliation process. The share of tribunal cases resolved in pre-court and pre-trial conciliation/mediation was 60% in 2011-12.

**United States:** There is no standard procedure for dispute resolution in the United States. In the employment context, a collective bargaining agreement or a contract may set forth a grievance procedure. An agreement may require arbitration as the "exclusive, final and binding" method of resolving workplace disputes under the contract and therefore, if an employee covered by that agreement files a lawsuit over a purported violation of the agreement, the judge would likely dismiss the suit. With few exceptions, the terms of the agreement govern. Unless an agreement states otherwise, mediation or arbitration may take place prior to filing the complaint or after filing a complaint, depending on the situation. Procedures vary depending on in which court an individual files a complaint, the specific claim and the terms of an agreement if any, among other factors.

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*Chapter 3*

# Activating jobseekers: Lessons from seven OECD countries

*This chapter provides a comparative review of key developments in the design and implementation of benefit systems, employment and training programmes and employment service arrangements in seven OECD countries. An active orientation of these policies helps to mobilise jobseekers into employment and avoid benefit dependency. The chapter draws on a series of country reviews of activation policies in Ireland, Norway, Finland, Switzerland, Japan and Australia as well as on the preliminary findings from the United Kingdom review. It provides insights into the lessons that can be learnt from the activation policies that have worked in these countries as well as the pitfalls to avoid.*

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## Key findings

OECD reviews of activation strategies for getting the unemployed and inactive into work have been completed for Ireland, Norway, Finland, Switzerland, Japan and Australia, and preliminary findings are available from the review of the United Kingdom. One key finding is that the design and implementation of benefit systems, employment and training programmes and employment service arrangements are important drivers of the levels of unemployment and benefit dependency rates.

All seven countries had, prior to the global financial and economic crisis, relatively good labour market performance with higher employment and lower unemployment than the OECD average. All but Ireland also weathered the crisis relatively well. Ireland was hit hard by the crisis: the employment rate for 15-64 year-olds reached a pre-recession peak of 69.2% in 2007, above the OECD average, but it fell to 58.8%, and unemployment reached 15.3%, in 2012. Even in the other countries, specific demographic and labour market challenges remain: Finland, Norway and the United Kingdom have above-average disability benefit recipiency rates; Australia's lone-parent employment rate remains relatively low; the incidence of long-term unemployment in Switzerland remains fairly high; and Japan's low unemployment is not reflected in a high employment rate for women.

However, this comparatively good labour market performance in six out of the seven countries reviewed reflects different activation strategies. Across the review countries, there are substantial differences in eligibility conditions for benefits and their generosity, in the operation of the public and private employment services and resources devoted to active labour market programmes (ALMPs). While the formal conditions attached to unemployment benefits are strict in all of the review countries, there is some variation in the types of jobs that an unemployed person must accept, the degree of geographical mobility that is required and requirements concerning job referrals and active job search.

Moreover, the standard range of active labour market measures for unemployed workers rarely applies across the whole target group for activation as the measures may be very different for people with partial work incapacity, lone parents and social assistance recipients. The review countries also have distinctive arrangements for unemployed youth including "youth guarantees" in the Nordic countries and the prioritisation of education over job search for early school leavers in Australia. Programmes that fully exempt older unemployed workers from job-search requirements have now generally been abolished, and partial exemptions from intensive activation measures are also becoming more restricted.

### *General lessons for policy*

Although institutional arrangements, benefit systems and other components in labour market policies are often unique to each country, a number of general lessons for activation strategies emerge from the reviews:

- *All countries with a well-developed system of income support for unemployed people can benefit from a strong employment-focused activation system* which assists with job search, matching

and reducing barriers to employment, backed up where necessary, and certainly after six months or a year of unemployment, by mandatory referrals, enforced by benefit sanctions, to employment and training programmes. However, there is no unique formula for effective activation. Simple "best practice" measures which at first sight are the same in two countries may not be equally effective, due to differences in detailed implementation and the country-specific context. A few techniques such as the "individual action plan" are quite widely used, but the detailed procedures remain very variable, and such a technique is at most one element in an activation strategy.

- *Reforms to activate recipients of benefits that previously were not conditional on availability for work require care and may take time to show up in higher employment rates for these groups.* Measures in the review countries along these lines included reforms of lone-parent benefits in Norway in 1998 and parenting payments in Australia in 2006 and 2007; and steps that halted earlier growth of disability benefit caseloads by the mid-2000s in Australia, Switzerland and the United Kingdom. Since 2008 Ireland has restricted access to lone-parent benefits and the United Kingdom has restricted access to both lone-parent and incapacity benefits. Reforms of this kind tend to increase unemployment rather than reduce it, but if unemployment is kept fairly low through activation measures, the net effect is to increase the employment rate. However, care is needed to avoid overloading employment services with new client groups. In particular, the transfer of workers with restricted work capacity to unemployment benefits risks a build-up of long-term unemployment, and this could divert resources that are needed to contain levels of unemployment among workers with full capacity to work. Activation requirements may be targeted on new claimants to test and refine new provisions, and only extended later, or not at all, to people who were already on the inactive benefit at the time of the policy reform.
- *Institutional reforms have been a critical component of activation strategies.* Reforms have included organisational mergers or co-location of services that combine employment assistance with benefit administration. In the case of Norway, it is too early to tell whether the ambitious recent reform effort has been successful. The UK experience suggests that merging the public employment service and benefit agency has improved employment outcomes and services for clients and has been cost-effective. Experience from other countries, such as Finland, Ireland, Switzerland and Australia, suggests partnership approaches between organisations and agencies (including those in the private and not-for-profit sector) can improve the co-ordination of service delivery, especially for disadvantaged client groups or high-unemployment areas. In Finland, the alignment of institutional incentives, as national government and local governments agreed to share the cost of benefit payments to the target group, accompanied the development of jointly managed service centres for the very-long-term unemployed.
- *The effectiveness of public and private employment services can be improved through performance management.* Performance is often measured in terms of job placements and, especially for harder-to-help groups, longer-term employment outcomes. However the targets for these outcomes are often set at the national, regional and local office levels, by ad hoc methods such as negotiation or incremental improvements on the previous year's performance. Australia and Switzerland, by contrast, rate local employment office performance in terms of gross outcomes with regression adjustments for jobseeker and local labour market characteristics. This approach encourages the robust operational measurement of the variables involved, and helps to identify further factors influencing performance and, when well-developed, it generates relatively accurate and objective

ratings of local office performance. In practice, a mixed approach is needed to allow all the available information to be fully used, since some types of data are not accurate and available at the level of every individual employment office.

### *Lessons from national experiences*

The OECD's activation reviews also highlights a number of interesting lessons based on the experience of individual countries which may be of interest to other countries facing similar issues or with a similar institutional set-up:

- In *Japan*, employment services can be effective at relatively low cost in the context of a "chasm" in benefit coverage which helps to keep unemployment low relative to other countries. Unemployment insurance (UI) entitlements are quite restricted: for a person aged less than 45 with less than five years of contributions since their previous claim, duration is limited to three months, and social assistance is restricted by asset tests and strict administration. UI recipients are required to attend counselling sessions once a month, listing two job-search actions, which helps to maintain contact with the jobs market and the range of employment services available. The ratio of registered vacancies to registered unemployment approaches one, far higher than in most EU countries. The integrated structure of the public employment service (PES) ensures the consistent implementation of national policies in a cost-effective way. For example, after the Great East Japan Earthquake, the nationwide network of placement agencies provided effective support for displaced workers. ALMPs (e.g. vocational training and hiring subsidies to aid the placement of disadvantaged workers) support the job placement work. Japan's experience may be relevant for other countries that do not provide broad benefit coverage of unemployment, but do aim to tackle labour market problems by providing both basic social protection and publicly funded employment services.
- *Ireland* had fairly high levels of expenditure on ALMPs, but little activation, illustrating that there is no automatic link between the two. In the 2000s, ALMP expenditure was about 0.6% of GDP but the unemployed had (almost) no obligation to visit employment offices or report their job search. A range of employment services were funded, but with participation being voluntary some of them struggled to attract clients. The ratio between unemployment benefit recipients and labour force survey unemployment (B/U ratio) was among the highest in the OECD. A number of reforms have been recently introduced to address these issues. The Irish experience demonstrates that the activating nature of ALMPs depends on factors such as the voluntary/compulsory nature of participation, the level of income support paid and content in terms of job search and links to the labour market.
- *Australia,* where employment services are delivered by contracted employment service providers, now has relatively low unemployment and a high employment rate. The Australian experience demonstrates that a quasi-market for employment services can operate effectively but it requires an active national management framework. The benefit administration body, Centrelink, implements the Job Seeker Classification Instrument and other jobseeker assessment tools, manages job-search requirements so that only people who are somewhat able to benefit from employment services are referred to a provider, and investigates reports by providers of individual non-compliance that may justify a benefit sanction. The Department of Employment defines complex contracts with employment service providers, maintains a national database of jobseeker characteristics and estimates comparative measures of employment service provider performance as the basis for renewing or terminating contracts. It also audits provider activity on an ongoing

basis using a range of techniques, which helps to ensure uniformity in the criteria for payment of Service Fees and Outcome Payments to providers. Although the management framework has a cost, it does tend to ensure that the quasi-market rewards the right outcomes and that only high-performing providers can remain in the market.

- In *Switzerland*, unemployment benefits are financed at the national level and local employment-services offices are managed by cantons. However, cantons follow the national objective of minimising the duration of unemployment spells. This is in their interest because the assistance benefits paid after UI exhaustion are fully funded at the cantonal or municipal level. Employment services are federally funded, and local employment office placement performance is regularly rated using information on the national IT system. Public employment service (PES) caseworkers are relatively experienced professionals, responsible for referring their client to jobs or ALMPs or for benefit sanctions. Thus, while there is a risk that national funding of unemployment benefits with local management of employment services could lead to a weak activation stance, Switzerland has been able to avoid this through federal performance oversight and disciplined management.
- *Finland* has a unique labour market policy history, and in the 1990s it had particularly high unemployment. Although local PES staff are employees of the national government, PES management is highly decentralised: local employment offices enjoy a high degree of flexibility, and have direct management contacts only with regional-level Employment and Economic Development Centres. Until recently, Labour Committees attached to each employment office, with local representation, interpreted benefit eligibility criteria and took decisions about benefit sanctions in individual cases. National financing of benefits and ALMPs with *de facto* local management was a factor behind the policies of the 1980s and the persistent high unemployment in the 1990s, but recently outcomes have progressively improved. Local actors do not appear to support strict job-search reporting requirements for jobseekers, while they do support activation through referrals to job vacancies and to ALMPs with benefit sanctions in cases of refusal. In 2006, municipalities accepted responsibility for half the cost of assistance benefit payments to the very-long-term unemployed, and new structures jointly managed by employment service offices and municipal welfare offices were set up. Finland's experience illustrates both the risks and potential rewards of its local-consensus-based system, with increasing attention to activation principles and willingness to prioritise them in recent years.
- In *Norway*, activation measures for the unemployed – along with possible substitution towards incapacity benefits, including the sickness benefit which pays 100% of the previous wage – have kept unemployment low. However, it may be preferable to treat more of the people who are currently on sickness, rehabilitation and disability benefits as unemployed, albeit addressing the specific barriers they may face through appropriate job-search assistance. The review identified a need to strengthen the gatekeeping function of the PES, expanding the role of the occupational doctors employed by the PES and increasing their number, along with the need for new measures to assess employability, which were subsequently introduced in 2010 together with the Work Assessment Allowance.

## Introduction

During the last three decades governments in many member countries of the OECD have sought to activate their welfare states. There is no common definition of activation but core objectives are to bring more people into the effective labour force, to counteract the potentially negative effects of unemployment and related benefits on work incentives by enforcing their conditionality on active job search and participation in measures to improve employability, and to manage employment services and other labour market measures so that they effectively promote and assist the return to work.

Activation strategies first emerged as governments grappled with increased youth and long-term unemployment associated with the economic shocks and policy errors of the 1970s and 1980s. Rapid increases in unemployment were initially viewed as cyclical or transitory, and at least into the 1980s there was a tendency to increase the level and duration of unemployment benefits, expand large-scale temporary employment programmes and encourage older workers to leave the labour market.

By the late 1980s there were marked differences in how well countries with developed welfare states were dealing with high levels of unemployment and increased benefit caseloads. In response, the OECD and the European Commission undertook comprehensive studies of how member countries had responded to prolonged recession and long-term unemployment. These studies assessed relative levels of joblessness and economic performance and how they were influenced by labour market institutions and welfare state arrangements. The studies sought to explain how some countries had kept unemployment relatively low, whilst others had not, and the analysis informed the policy recommendations outlined in *The OECD Jobs Study* (OECD, 1994) and the European Employment Strategy that was developed following the Delors White Paper on "Growth, Competitiveness and Employment" (European Commission, 1993).

High levels of unemployment, and persistent long-term unemployment were found to be more entrenched in countries where lengthy periods of unemployment benefit entitlement were combined with weaknesses in related policies and institutions. In several countries this included unco-ordinated delivery of employment services and unemployment benefits and the weak definition and implementation of benefit conditionality. It was argued that unemployment levels either had been contained or would more rapidly be reduced in countries that prioritised and effectively managed active measures to encourage a return to work of those on welfare benefits.

OECD policy makers since then have encouraged member countries to implement activation reforms for the unemployed, and increasingly in the 2000s argued for the extension of such policies to employable people of working age in receipt of disability, early retirement, and lone-parent or other "inactive" minimum income benefits (OECD, 2006). Activation polices are intended to bring long-term unemployed and inactive people into the effective labour supply, enhance their employability and prevent long spells on benefits from occurring in the first place. They are regarded as a response to the challenge of ageing populations and an effective way to reduce poverty and social exclusion whilst containing the costs of social protection systems.

Activation measures are particularly important in the wake of the global financial crisis of 2007-08 when demands on social protection systems have increased at the very time when their financing becomes more difficult. In most OECD countries the first priority was to stabilise the economy and to mitigate the impacts of economic contraction on those who

had lost, or were at risk of losing, their jobs. These measures, and wider stimulus packages, limited the negative effects of the immediate crisis but outcomes have varied with unemployment increasing to very high levels in several countries whilst others have experienced smaller increases. Some countries have contained or reversed any increase in unemployment through maintaining strong activation regimes, as in Austria or Switzerland, or with restricted benefit coverage and milder activation, as in Japan. Other countries that had implemented activation reforms in the 1990s and 2000s, such as Australia, Germany and the United Kingdom, were better placed to contain subsequent increases in unemployment after the global financial crisis.[1]

The purpose of this chapter is to take stock of the lessons that can be learned from country experience over the past two decades with implementing activation policies. While it builds upon the findings of previous reviews of country developments (OECD, 2001; 2003; 2005; 2007), the main focus of the chapter is the findings from recent in-depth reviews of seven OECD countries that give further insight into the design and implementation of activation policies. Of these, six country reviews were completed by the OECD between 2007 and 2012, covering Ireland (Grubb et al., 2009), Finland (Duell et al., 2009a), Norway (Duell et al., 2009b), Japan (Duell et al., 2010a), Switzerland (Duell et al., 2010b) and Australia (OECD, 2012a). A review of the United Kingdom is ongoing, and this chapter includes some information about its policies. The timing of these reviews should be borne in mind when interpreting the findings reported in the chapter.[2]

Activation principles can be successfully implemented in different ways depending on the national context. The studies provide a wealth of grounded insights into pitfalls to avoid and the activation policies that have worked in particular circumstances and contexts. They also often give particular attention to unique national policies that could be adapted and adopted by other countries. For example, the Australia review describes and evaluates many features that are specific to the management of a quasi-market for employment services.

The chapter is structured as follows. Section 1 gives an overview of expenditure on labour market programmes in the review countries. Working-age benefits in each country are described in Section 2. The key findings in the country reviews on how benefit caseloads and employment levels are shaped by the interaction between entitlements, labour market trends and employment services are discussed in Section 3. Specific types of intervention in the unemployment spell are considered in Section 4. In particular, an in-depth assessment is given of the intervention regimes in two countries with contrasting activation strategies, Switzerland and Ireland. In Section 5, the focus switches to general institutional arrangements, including the front-line organisation of benefits and employment services and the monitoring and management of performance of providers of employment services. In the concluding section, some general considerations for activation policy are put forward, especially in the context of dealing with the long shadow that the economic and financial crisis has cast on the labour market.

## 1. Patterns of spending on labour market programmes

There are marked variations in the balance between what are categorised as active and passive programmes. ALMPs can be activating in nature if they increase jobseeker obligations (e.g. participation is compulsory, and participants stay on unemployment benefits) or have close links to the regular labour market (improving the prospects of a

regular job offer). However with voluntary participation, levels of income support above the unemployment benefit level or little opportunity for job search during participation, the "active" measures can also slow the return to regular work, perhaps favouring patterns of cycling between open unemployment and programme participation. Time-series relationships between unemployment and active spending are similarly complex. In a recession, active expenditure may not keep pace with increases in passive expenditure.

### *Expenditure on active programmes*

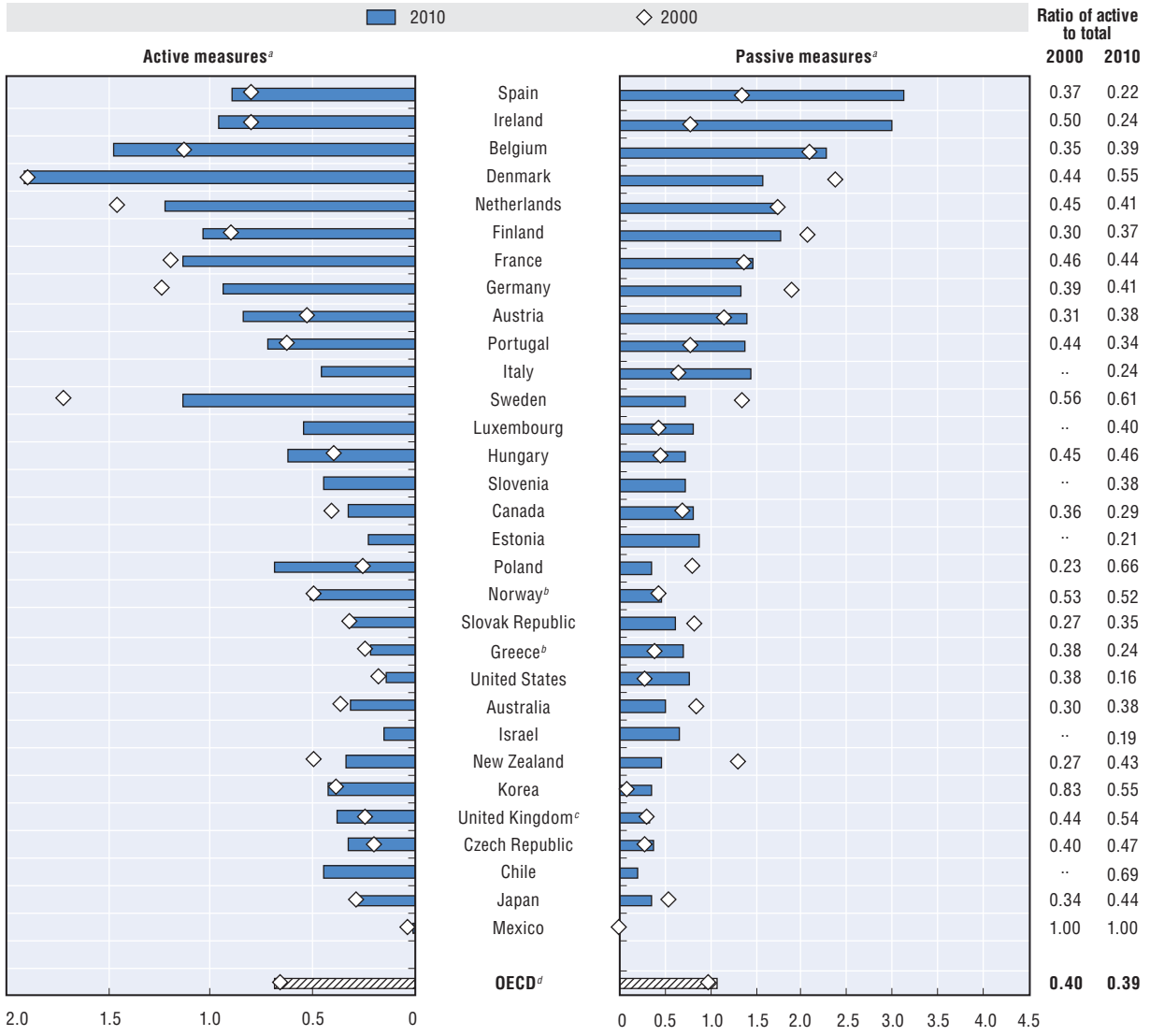
Figure 3.1 shows how patterns of labour market policy expenditure in OECD countries (where such data are available) changed between 2000 and 2010. Recent declines in the share of total spending devoted to active programmes in many countries reflect the impact of the global economic and financial crisis, with increased expenditure on unemployment benefits. Relative to GDP, spending on passive measures in Ireland in 2010 was more than three times its level in 2000. In Australia and the United Kingdom, both active and passive spending have been consistently below the OECD average. There is no obvious cross-country relationship between the proportion of GDP spent on ALMPs and unemployment levels (see Figure 3.2). Patterns of expenditure reflect policy choices in the different countries, as well as cyclical unemployment variations.

Detailed breakdowns of expenditure by programme are invaluable for understanding national policies, but it is important to recognise limitations in the cross-country comparability of category aggregate data.[3] In Finland and Norway, participants in training programmes are paid allowances rather than unemployment benefits and these are included within the total spent on training programmes. In Australia, by contrast, up to 80 000 unemployed people participating in training programmes continue to receive unemployment benefit payments. If they were identified as training participants and their unemployment benefit payments were classified as active expenditure, consistent with definitional guidelines, reported "active" expenditure would be about 20% higher and "passive" expenditure would be lower.

Despite data limitations, levels of expenditure on public employment service (PES) and administration and on other active programmes are an important indicator of the capacity of national systems to implement activation policies. For example, as self-reported job search and occasional interviews alone do not constitute reliable evidence of availability for work, front-line PES advisers need other options to which they may refer unemployed people, especially when jobs are scarce, to help offset the disincentive effects of high earnings-related unemployment benefits. At the same time it is noticeable that Norway and Switzerland, which have enjoyed consistently low unemployment rates, have only intermediate levels of ALMP expenditure, which they combine with a focus on job search and placements of jobseekers into unsubsidised jobs. High levels of ALMP expenditure have not necessarily been more effective. It is clear that programmes in the same broad category vary greatly in their effectiveness. Indeed in Australia, Finland and the United Kingdom, more-effective activation regimes were developed partly due to a perception that earlier large-scale training and employment programmes "warehoused" the unemployed and then recycled most of them back into unemployment.

Figure 3.1. **Active and passive labour market programmes in OECD countries**

Public expenditure as a percentage of GDP




*Note:* Countries are ranked in decreasing order of the total of both active and passive measures. Data refer to fiscal years 2010-11 for Australia, Canada, Japan, New Zealand and the United States.

*a)* Active measures refer to Categories 1-7, passive measures to Categories 8-9 of the *OECD/Eurostat Labour Market Programme Database*.

*b)* Expenditure on PES and administration is not included.

*c)* Data refer to fiscal year 2009-10.

*d)* Unweighted averages for countries where both active and passive measures are shown for 2000 and 2010, i.e. except Chile, Estonia, Israel, Italy, Korea and Slovenia.

*Source: OECD/Eurostat Labour Market Programme Database*, *http://dx.doi.org/10.1787/data-00312-en*.

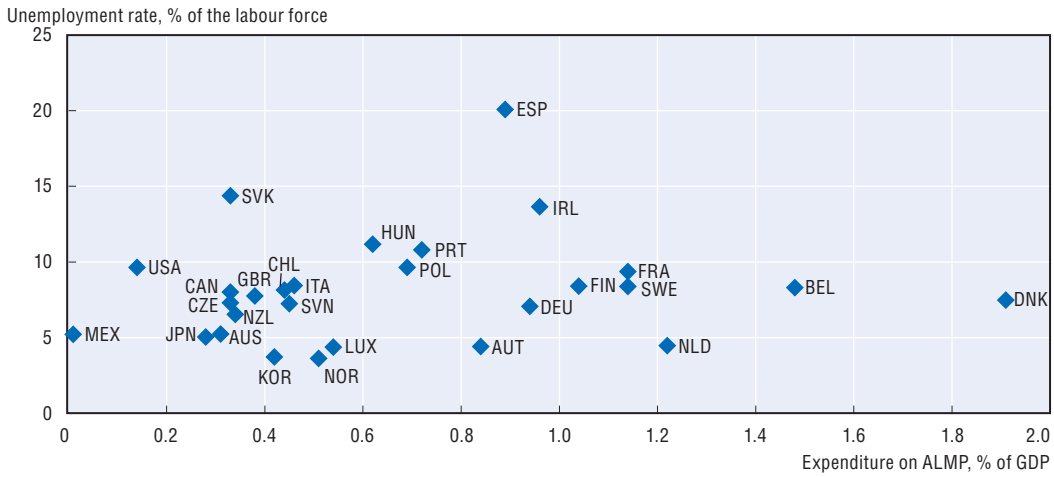
StatLink http://dx.doi.org/10.1787/888932852922

### *Adjustment of active expenditure in the recession*

The review countries increased active expenditure as a percentage of GDP in response to the recession that resulted from the global economic and financial crisis.[4] By 2010, expenditure on the PES and administration as a percentage of GDP had increased (relative to fiscal year 2007/08) by nearly 50% in Ireland, and (relative to calendar or fiscal year 2008) by 20% in Finland, Japan, Switzerland and the United Kingdom, but only by 5% in Australia. This expenditure increases automatically in a recession in Switzerland because the federal

Figure 3.2. **Incidence of unemployment and expenditure on active labour market programmes, selected countries**

Percentages, 2010




*Note:* For Norway, expenditure on PES and administration is not included. Data for the United Kingdom refer to 2009-10.
*Source: OECD/Eurostat Labour Market Programme Database, http://dx.doi.org/10.1787/data-00312-en; OECD Labour Force Statistics Database, http://dx.doi.org/10.1787/data-00309-en.*

StatLink http://dx.doi.org/10.1787/888932852941

grants to cantons to cover the administrative costs of running the local and cantonal employment offices depend on the yearly average number of jobseekers. It is also linked to the number of jobseekers in Australia, since fees are paid to employment service providers on a per-jobseeker basis, but here the change in expenditure was modest.[5] In the United Kingdom, a very large budget increase (which in the end was not fully spent) was allocated at the start of the recession; at first, less time-consuming activities with clients were prioritised but by 2011/12 the number of staff in local jobcentres had increased by more than 50% (see Box 3.7 and NAO, 2013).[6] In Ireland, the number of registered jobseekers increased by about 150%, far outstripping the increase in PES resources.

Expenditure on other ALMPs such as training, recruitment incentives and direct job creation is often several times greater than expenditure on the PES and administration. Japan reported an increase of over 100% in 2009/10, followed by some scaling-back in 2010/11 and renewed expansion of direct job creation measures in 2011/12 in response to the Great East Japan Earthquake. This expenditure increased by 30% in Finland and by 50% in Ireland, as compared with two or three years earlier. It may be difficult to achieve a rapid expansion in these measures in an efficient way, since employer take-up of recruitment incentives tends to fall slightly in recessions (Grubb and Puymoyen, 2008), and time is needed to hire new supervisory staff and set up infrastructure such as training centres.

## 2. Working-age benefits in the review countries

Each review country has a distinctive combination of income-replacement benefits for people of working age. The main benefits include unemployment benefits (UB), health-related (sickness and disability) benefits, early retirement, social assistance, and targeted benefits for other groups such as students and lone parents. The configuration of each country's benefit system has an important bearing on its overall activation stance. Where unemployment benefits are high and of long duration, activation measures for the unemployed need to be intensive to limit benefit costs and caseloads, although in some

extreme cases (such as unemployment benefits paid through to retirement) this effort has not always been considered worthwhile. In European countries, unemployed people who exhaust Unemployment Insurance (UI) benefits often move onto assistance benefits and commonly UI benefits are nationally financed and managed, while assistance benefits are locally financed and managed. However, deviations from this pattern are also common and then activation measures may be ineffective due to misalignment of financing and management responsibilities. Eligibility conditions for unemployment benefits can be seen as activation measures, but the strength of this activation will depend on interventions in the unemployment spell such as job-search monitoring that implements the conditions. Activation measures are not targeted only on unemployment benefits and the reduction of unemployment. Measures have also been introduced to shift target groups from inactive benefits onto unemployment benefits, so that availability-for-work requirements apply to them. This strategy is expected to increase the employment rate, rather than reduce the unemployment rate. In some cases, full availability for work is not required but participation in work-preparation activities is required, resulting in complex configurations of benefit subcategories associated with distinctive and interrelated activation measures.

The reviews provide brief histories of the benefit systems for working-age people in each country, and information on contribution and job-search-related eligibility rules, wage-replacement rates, coverage, levels of expenditure, and trends in caseloads. The thumbnail descriptions below give an overview of the primary working-age benefits at the time of the reviews but do not attempt to cover all of the detailed provisions and unique features within each national system.

Each country, except for Australia, combines a contribution-based social insurance system with more-or-less comprehensive safety-net benefits for eligible poor people who either do not qualify for insurance benefits or have exhausted them. In Switzerland, federal social insurance schemes cover unemployment, sickness and accidents, old age and maternity leave. Unemployment benefits are comparatively high relative to previous wages, and potential benefit duration is one to two years, depending on age and contribution record. The schemes are controlled at the federal level, but 38 unemployment funds administer UI claims, with 26 cantonally managed public funds handling about 60% of the claims. PES funding is national but is also channelled through the cantons. The main element of federal control is through legislation and the publication and benchmarking of the comparative performance of local PES offices. Social assistance is managed and financed at the cantonal level or, in some areas, at the municipal level.

The two Nordic countries, Norway and Finland, both have a UI benefit duration of about two years, and also both have social assistance (SA) benefits that are financed and administered by municipalities, but in other respect their benefit systems differ significantly.

In Norway, unemployment benefits, sickness benefits, rehabilitation (medical and vocational), disability and old-age pensions, as well as benefits related to pregnancy, birth and childcare, are part of a National Insurance System. The component funds are financed by employer and employee contributions, with 29% of total expenditure financed out of the national budget. Out-of-work social insurance benefits are generally determined in relation to a basic amount of annual earnings with the amount adjusted by Parliament once or several times a year. In contrast with the situation in other Nordic countries, UI contributions are compulsory and there are no independent UI funds. Those not

covered by the social insurance system, or whose entitlements are low, can receive means-tested SA which is financed by the municipalities, although they receive from central government a block grant based on estimated expenses.

In Finland, the 36 independent unemployment funds and the national Social Insurance Institution (KELA) are responsible for financing and delivering social insurance benefits. Fund membership is voluntary. Employee contributions finance only a small proportion of the benefits paid to members, the remainder being covered by employer contributions and a state subsidy. The funds pay their qualifying members earnings-related unemployment, sickness and other benefits and KELA pays a basic allowance to those who are not members of any unemployment fund, if they fulfil earnings and employment duration conditions. The earnings-related and basic allowance unemployment benefits are normally paid for a maximum of 500 days (100 weeks). Jobseekers who are not entitled to an allowance or who have exhausted their allowance can claim "Labour Market Support" (LMS), a nationally financed means-tested unemployment assistance (UA) benefit. Municipalities provide also relatively generous SA benefits, but these most often function as a "top-up": in 2006 and 2007 an estimated 35% of LMS recipients lived in households receiving SA, and nearly 90% of SA recipients had some income from another income-replacement benefit.

The benefit systems of the English-speaking countries, Australia, Ireland and the United Kingdom, share some common features. Replacement rates (i.e. the ratio of benefits to former or average earnings) are significantly lower for a single person than for a single-earner married couple. They are below the OECD average in the initial phase of unemployment, but are above the OECD average when considering long-term claims taking SA "top-ups" into account. The unemployed rely significantly more on assistance benefits than in the three other European review countries. Working-age benefits are managed nationally, with only a limited role played by local government.

Ireland and the United Kingdom have social insurance schemes, financed by worker and employer contributions and central government, which cover risks such as unemployment and sickness or disability. Ireland's Jobseeker's Benefit for most of the 2000s paid benefits for up to 15 months (reduced to 12 months in 2008 and to 9 months in 2013), and was paid to 40% of unemployment benefit recipients. The United Kingdom pays a flat-rate Jobseeker's Allowance for up six months, paid to 20% of unemployment benefit recipients. In both countries, the unemployed can claim a means-tested Jobseeker's Allowance if they do not qualify for the insurance benefit or if the means-tested benefit payment will be higher. There are also separate national benefits for people with health problems and disabilities and, in Ireland, for lone parents. Both countries currently have safety-net SA benefits – Supplementary Welfare Allowance in Ireland and Income Support in the United Kingdom (where it is payable to lone parents). As in other countries, the receipt of means-tested unemployment benefits often gives access to "secondary" or "passported" benefits that can provide, for example, support with rent and other costs.

The Australian social security system, in contrast, is solely funded from general taxation and provides flat-rate, means-tested, income support payments for people of working age. The primary benefits are Newstart Allowance for the adult unemployed; Youth Allowance for unemployed young people or those participating in allowable full-time education or training; Disability Support Pension for those with a long-term disability; and Parenting Payments for partnered or single principal carers of dependent children up to six or eight years of age. Each payment type has different eligibility criteria including, in

specified circumstances, job-search or other "participation" requirements. All the payments are both income- and asset-tested, with benefit levels being significantly higher for "pensions" than for the "allowances", although in the case of lone parents this distinction is blurred and intermediate levels of benefit are paid.

In the 2000s, UB replacement rates declined significantly in Australia and rose significantly in Ireland. In Australia, this reflects a decision in the 1990s to index unemployment benefits to prices rather than wages, which led to an increasing gap between the level of unemployment and disability benefits. In Ireland, in connection with the National Anti-Poverty Strategy the government made a commitment to raise the lowest rate of benefit by more than 25% from 2002 to 2007. According to recent OECD estimates, net replacement rates for a basket of typical cases increased by about 20% on average between 2002 and 2009, and by 2009 the average across a hypothetical five-year unemployment spell was the highest or second highest among OECD countries, although the representativeness of these estimates has been questioned.[7] Since then both benefit levels and UI duration have been cut back, due to fiscal pressures as well as a desire to boost work incentives.

In Japan, contributions for Labour Insurance (Workers' Accident Compensation and Employment Insurance) and Social Insurance (Health and Pension) have been harmonised and levied together from 2007. Employment insurance (EI) is calculated in relation to previous earnings and paid for a period that varies from 90 to 360 days according to age, the reason for job loss and the claimant's contribution record. Until recently, a large proportion of all employees – according to some sources over a third – were not contributing to EI, since some types of non-regular work, in particular, until 2009, any work expected to last for under a year, did not qualify for coverage. Local authorities finance 25% of the costs of Public Assistance (which is Japan's SA benefit). Few unemployed people qualify for it, and it was estimated that in Japan in 2004 recipients of EI and SA (not including payments on grounds of disability) totalled only 1.2% of the working-age population – far below the nearly 7% average rate for 15 other OECD countries with data.

The low benefit coverage of the unemployed indicates success in terms of limiting benefit dependency and costs, but may also be seen as a sign of inadequate social protection. The Japanese model of unemployment provision may be particularly relevant to many middle-income countries with a significant informal sector, because the short-duration benefits conditional on contribution record ensure initial jobseeker contact with the PES, and the PES plays a significant role in the hiring process and jobseekers without a benefit entitlement continue to use it (see Box 3.1).

## 3. Employment rates, benefit caseloads and participation requirements

As noted above, the employment rate for 15-64 year-olds is above the OECD average in six of the seven review countries. In Ireland, it reached a pre-recession peak of 69.2% in 2007, but fell to 58.8% in 2011. Also unemployment rates in 2011 were at or below the OECD average in six of the countries. Norway and Switzerland have some of the highest employment rates and lowest unemployment rates (3.3% and 4.0% respectively) in the OECD.

Despite the comparative success of most of the review countries in terms of their labour market outcomes, each has faced and continues to negotiate particular challenges. Some common factors included the decline of manufacturing and the growth of service sector employment; increased female labour force participation, especially in part-time

### Box 3.1. **Japan's unemployment protection and activation policies**

Japan's unemployment rate has been continuously below 6%: in early 2013 it stood at 4.2%. The core elements of the Japanese approach to activation can be summarised as:

- Short potential benefit durations (except for some long-tenure older workers): Employment Insurance benefits cover only about 25% of the unemployed as measured in labour force surveys.
- A strong PES with mandatory attendance at a briefing session for new claimants and in-person reporting to the PES every four weeks, with relatively low participation in other ALMPs, although there are training options and some hiring subsidies for people with disabilities or other barriers.
- Very strict conditions for Public Assistance (Japan's social assistance benefit), such that relatively few unemployed people qualify. The key factors seem to be the asset test, which prevents unemployed people from qualifying until they have exhausted their savings and disposed of non-essential household goods; the eligibility requirement for "full use of one's capacity to work", which often leads to rejection of applications or the provision of assistance only for short periods, except for the most highly disadvantaged applicants; and strict administration by local welfare offices, which includes home visits that check on the ownership of assets. Lone parents are entitled to a separate Child-rearing Allowance which, although it is not high enough to live on by itself, facilitates the strict administration of Public Assistance for this group (see Section 3 of the main text).

These arrangements limit the disincentive effect of benefit entitlements, while also ensuring that:

- Job losers receive basic advice and familiarisation with the available job openings and employment services.
- There is significant take-up by the unemployed of PES services which include, for example, action plan procedures for some target groups. The PES does not need to make participation in its specialised services compulsory because unemployed jobseekers are generally well-motivated.
- Unemployed people who exhaust UI benefits generally avoid destitution, usually through their own efforts or means (re-entering work or family support), but also through social assistance in cases with relatively severe problems.

Social assistance coverage has increased since the ministry advised local welfare offices in the early 2000s that work capacity should not in itself preclude applicants from eligibility for Public Assistance. Job losses in 2009 also increased the number of applicants. Although welfare offices should strictly monitor job search, they and the PES face a new challenge to ensure the more systematic organisation of activation measures for this group.

*Source:* Duell, N., D. Grubb, S. Singh and P. Tergeist (2010), "Activation Policies in Japan", *OECD Social, Employment and Migration Working Papers*, No. 113, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5km35m63qquc-en.*

employment; and the wider development of more-flexible and non-regular employment patterns. Other common challenges included population ageing, the increased participation of young people in full-time education, and changes in family formation.

In each country the impacts of economic and demographic changes on unemployment and welfare caseloads were shaped and for some groups in large part explained by interactions between benefit entitlements, activation requirements, administrative

structures and labour market institutions. This section reviews the impact of benefit entitlements and other labour market policy parameters on the caseloads of benefits for the unemployed, disabled, older workers, and lone and couple parents.

### *Unemployment benefit caseloads and labour force survey unemployment*

Activation measures are expected to reduce the number of people who are receiving unemployment benefits, but are not unemployed as recorded in the labour force survey (LFS) because they are not searching for work. However, the relationship between administrative data and LFS data is complex since, for example, unemployment benefit recipients may not be LFS unemployed for a range of reasons, including part-time work. The reviews do not provide cross-tabulations showing unemployment benefit recipients distributed by LFS status and vice versa, which would be helpful. Nevertheless, data is available to calculate the ratio between the number of unemployment benefit recipients and the number of LFS unemployed (the B/U ratio) and this ratio varies widely across the review countries (Table 3.1). An examination of this ratio helps to identify the target group for activation measures and how activation is likely to influence the LFS measure of unemployment.

Several country-specific factors influence the ratios shown in Table 3.1, notably:

- On the one hand, the UB recipient total includes some people who are not unemployed, as defined by the detailed conditionality requirements of their benefit payment. In Australian official statistics about 50% of the recipients of Newstart or Youth Allowance (other) – conventionally described as Australia's unemployment benefits – are not formally classified as jobseekers, although there are borderline situations and the

Table 3.1. **Ratio of the number of unemployment benefit recipients to the number of labour force survey unemployed (the B/U ratio)**

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2000-11 average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Australia | 1.06 | 0.95 | 1.03 | 1.00 | 1.03 | 1.01 | 1.00 | 1.01 | 0.97 | 0.94 | 1.04 | 1.01 | 1.00 |
| Finland | 1.23 | 1.30 | 1.29 | 1.33 | 1.34 | 1.31 | 1.25 | 1.22 | 1.37 | 1.39 | 1.30 | 1.37 | 1.31 |
| Ireland | 1.43 | 1.81 | 1.68 | 1.67 | 1.48 | 1.32 | 1.28 | 1.30 | 1.80 | 1.32 | 1.27 | 1.20 | 1.46 |
| Japan | 0.34 | 0.34 | 0.30 | 0.25 | 0.23 | 0.23 | 0.23 | 0.23 | 0.25 | 0.27 | 0.21 | 0.23 | 0.26 |
| Norway | 0.73 | 0.73 | 0.72 | 0.80 | 0.82 | 0.66 | 0.55 | 0.47 | 0.38 | 0.68 | 0.67 | 0.63 | 0.65 |
| Switzerland | 0.80 | 0.76 | 0.89 | 0.88 | 0.88 | 0.82 | 0.81 | 0.72 | 0.70 | 0.77 | 0.75 | 0.66 | 0.79 |
| United Kingdom | 0.66 | 0.68 | 0.61 | 0.62 | 0.58 | 0.59 | 0.55 | 0.50 | 0.54 | 0.61 | 0.58 | 0.59 | 0.59 |

*Note:* Benefit caseload data relate to end June in Australia, end December in Finland and Ireland (in these countries the B/U ratio is calculated using the average of December data for the current and the previous year), annual averages of monthly data in Japan (data for the fiscal year starting in April), Norway and Switzerland, and an average of figures for February, May, August and November in the United Kingdom. Benefit caseload data exclude unemployment benefits paid to participants in active labour market programmes (*OECD/Eurostat Labour Market Programme Database*, Categories 2 to 7) if possible, but the data for Australia include participants in vocational training. They omit unemployed recipients of social assistance benefits. Labour force survey unemployment data relate to ages 15-64, on an annual average or similar basis.

*Source:* FaHCSIA (2012), "Income Support Customers: A Statistical Overview 2011", *Statistical Paper*, No. 10, *www.fahcsia.gov.au/about-fahcsia/publications-articles/research-publications/social-policy-research-paper-series*; Kela (2012), *Statistical Yearbook on Unemployment Protection in Finland 2011*; Department of Social Protection (2012), *Statistical Information on Social Welfare Services 2011*, Table C9; Table 4.3 in Duell et al. (2010a), updated using *www.mhlw.go.jp/toukei/itiran/roudou/roukei/shihyou/index.html* for regular *EI beneficiaries and Japan Statistical Yearbook* (online), for beneficiaries of employment insurance for daily employees; Ministry of Labour (2012), "Proposal for State Budget 2013", Chapter 2541, *www.regjeringen.no/nb/dep/ad/dok/regpubl/prop/2012-2013/prop-1-s-20122013/7/8/1.html?id=701419*, and earlier numbers in this series and as cited in Carcillo, S. and D. Grubb (2006), *www.amstat.ch/v2/index.jsp?lang=fr*; Benefit Caseload National Statistics (WPLS) data at *http://83.244.183.180/100pc/jsa/tabtool_jsa.html*.

StatLink http://dx.doi.org/10.1787/888932853397

proportion not subject to any type of job-search requirement is probably closer to 40%. The benefit paid in other cases is functionally equivalent to a training allowance (a payment to people participating in vocational training), an in-work benefit (a payment to people who are working at least part-time that is not conditional on being available for additional hours of work), or an inactive benefit (in cases where the job-search requirement is waived on grounds of personal circumstances, such as short-term illness). Some exemptions from job-search requirements for UB recipients apply also in other countries, but they are not so frequent and not so well documented.

- On the other hand, the UB recipient total does not include the following groups that receive a benefit payment that is subject to labour market conditionality:
  - Social assistance recipients who are not also receiving UI or UA, and are considered fit for work (rather than unable to work): this group represents roughly 20% of the unemployed in Norway and Switzerland and a smaller proportion in Finland and Japan.
  - In Australia, recipients of parenting payments that are subject to work-availability and job-search requirements: they correspond to about 20% of the conventional UB caseload.
  - In Norway, recipients of rehabilitation benefit "in between measures": they corresponded to about 50% of the number of UI recipients, and were (until a benefit-system reform in 2010) reported as unemployment benefit recipients in the *OECD/Eurostat Labour Market Programme Database*. They are required to participate in ALMPs to prepare for work. They are not usually required to be actually available for work, which is the defining feature of an unemployment benefit, but some proportion of them are likely to be unemployed as recorded in the LFS.

Abstracting from problems of data comparability, benefit-system entitlements can be seen as influences on the benefit coverage of LFS unemployment:

- In Finland, the high B/U ratio partly reflects the combination of relatively long duration UI benefits (nearly two years) with a UA benefit (LMS) payable separately to each member of an unemployed couple, including payments (at a reduced rate) to spouses with a partner in work on close-to-average earnings (see Box 3.4).
- In Japan, the low B/U ratio reflects the relatively short duration of UI benefits except for people with a long contribution record (for example, people aged less than 45 with less than five years of contributions since their previous claim are entitled to at most three months).
- In the United Kingdom, the low B/U ratio reflects the short duration of the UI entitlement (six months), the payment of the UA benefit to only one member of a couple even when both members are subject to job-search requirements, and strict means-testing, with a one-for-one reduction in the benefit amount for any income (including spousal income) above a low threshold. Here, a spouse with a partner in a full-time job, even with relatively low earnings, does not qualify for a payment. Several of these factors also apply in Ireland but with less force (e.g. the UI duration was 15 months until 2009, whereas in the United Kingdom it has been six months since 1996).

Other factors can be seen as influences on the number of UB recipients who are not LFS unemployed:

- Some countries impose work-availability conditions but not regular reporting of job-search activity, and some tolerate infrequent job-search activity, or rarely verify it. Due to these factors, UB recipients can be recorded as inactive, rather than unemployed,

in the LFS. High B/U ratios in Finland and Ireland appear to arise primarily because a significant group of unemployed benefit recipients do not report that they have actively looked for work in the past four weeks.[8]

- A person who works one or more hours in the survey reference week is employed in terms of their LFS status, but can still be a UB recipient if he/she has relatively low earnings and the benefit is conditional on continuing availability for additional hours of work or for a full-time job. The proportion of UB recipients who are employed, according to administrative records, seems to be relatively low in Japan and the United Kingdom. A seventh of UB recipients in Finland, an eighth in Ireland,[9] and nearly a fifth in Australia either receive an adjusted payment, or are in casual or part-time work, or have some work income (however, different countries use different concepts, and the reference dates for these estimates vary). In Norway, about 30% of unemployment benefit caseload is on partial lay-off or is available only for part-time work. In Switzerland, beneficiaries of the intermediate earnings ("intermittent pay") scheme total around 20% of the UB caseload, but these beneficiaries are not in the UB caseload used to calculate Table 3.1.

Between 1990 and 1994, Finland experienced the sharpest recession of any OECD country since 1945. The employment rate fell from 74.9% in 1989 to 60.7% in 1994. The recovery from high unemployment took longer than in other OECD countries and even at the low point of 6.4% in 2008, the unemployment rate remained above the levels of the 1980s. The scale and "stickiness" of Finland's unemployment was largely attributable to poor design of benefit policies, their interactions with temporary employment programmes, and the comparatively slow introduction of activation measures (see Box 3.2).

Analogous factors help to explain why Ireland has at most times over the past two decades had the highest ratio of unemployment benefit recipients to survey unemployment of any OECD country. Despite favourable economic conditions between 2000 and 2007, recipiency rates (caseloads as a percentage of the working-age population) for both unemployment payments and disability payments increased relative to the rates in the two other English-speaking review countries with comparable benefit systems, becoming the highest for unemployment and equal highest for disability. Australia and the United Kingdom had by 2007 done more in terms of activation and benefit gatekeeping. At the same time, by the late 2000s benefit replacement rates in Ireland were closer to those of Nordic countries, which are able to contain benefit dependency only through strict and expensive activation measures, which Ireland did not have in place. Benefit administration and employment service delivery were fragmented, with weak enforcement of job-search and other activity requirements, as there was no requirement on UB recipients to regularly visit the employment service offices.

### *Disability benefits*

Older worker and lone-parent caseloads are often successfully activated by applying the types of measures used for unemployment benefits to new subgroups defined by age, or children's ages. However, sickness and disability are typically the largest category of working-age income-replacement benefits, and the design of activation measures for disability benefit recipients is relatively complex. Reforms involve revised or new assessment procedures and categories, specialised employment and rehabilitation services, and ongoing support and/or permanent wage subsidies for people with disabilities who are in employment. Participants in disability assessment procedures and activation measures have an added incentive to minimise their apparent employability if they hope to be transferred to partial work incapacity or full work incapacity status.

### Box 3.2. **Activation and the unemployment aftermath of the 1990-94 recession in Finland**

Finland's experience in the early 1990s provides strong evidence that benefit and activation policies can be amongst the key drivers of employment outcomes during and in the wake of recessions. In this period Finland experienced shocks to export demand and the financial sector, but recovery in these areas was rapid, whereas the scale and subsequent persistence of high unemployment was unprecedented. Several policy variables contributed to this hysteresis outcome.

Before 1985, UI benefit in Finland was low, unrelated to past earnings and limited to 40 weeks. The reform which introduced earnings-related UI led to an increase of about 50% in typical benefit levels net of tax, and increased potential benefit duration to 100 weeks. However, the 1987 Employment Act guaranteed a six-month subsidised public-sector job for people who had been unemployed for 12 months. This job generated an entitlement to a new period of UI benefit, which after another 12 months would generate entitlement to another temporary job. This "carousel effect" made UI entitlements effectively indefinite. By a special rule, benefit levels after a temporary subsidised job were not reduced in line with the typically lower level of earnings in the subsidised job, and this feature created a long-term disincentive to taking a new job in the open labour market with lower earnings than the previous job.

The job guarantee applied also to UA recipients with no work record: they were entitled to a temporary subsidised job, after which they moved onto the UI benefit. In other countries, municipal social assistance administrations sometimes use subsidised jobs to generate a UI entitlement for their SA recipients, but this is usually seen as a dysfunctional procedure that should be suppressed; certainly no other country ever made this into a legal entitlement for SA recipients. Public-sector employers were required to create posts for the long-term unemployed, and the PES was also generating temporary subsidised jobs in the private sector for them (by paying large wage subsidies), so that job vacancies increasingly were not open to short-term unemployed candidates. Conventional job broking and placement in unsubsidised jobs were squeezed out.

From the mid-1990s as the economy recovered, direct job-creation programmes were scaled back and training programmes were expanded. The policy settings were significantly modified by reforms in 1997 for UI recipients and in 1998 and 2000 for LMS recipients. Finland, however, still has an earnings-related benefit of nearly two years' duration, without requirements for full-time participation in active measures after a certain time comparable to those in Denmark in the 1990s and Sweden in the 2000s. The social protection system prevented hardship associated with unemployment and mitigated the sense of crisis, and this helps to explain why there was not a strong consensus in Finnish society for significant benefit reductions or more-intensive activation measures and new types of activation measures such as job-search monitoring were implemented only cautiously. The gradual nature of reforms may also be related to the high cost of any intensive activation measures when benefit caseloads are high, and the limited ability to implement decisions taken at the national level in a country where PES offices and decisions about individual benefit eligibility are managed largely at the local level.

*Source:* Duell, N., D. Grubb and S. Singh (2009), "Activation Policies in Finland", *OECD Social Employment and Migration Working Papers*, No. 98, OECD Publishing, Paris, *http://dx.doi.org/10.1787/220568650308*.

The reviews identified a combination of "push" and "pull" factors that contributed to increases in the number of people claiming disability and health-related benefits in most of the countries with stricter activation regimes. "Push" factors included the relative laxity of medical and eligibility tests and the strictness of the activation regime for the unemployed. At certain points employers, the PES and other agencies seem to have encouraged groups such as older unskilled manual workers to claim disability benefits. "Pull" factors included the relative generosity of invalidity and disability benefits compared with those paid to the unemployed. Other factors in play include an increase in the number of people reporting qualifying mental health conditions and new types of work incapacity associated with changing patterns of employment.

In Norway, Switzerland, Australia and the United Kingdom, stricter activation of the unemployed in the 1990s was associated with higher numbers of working-age people claiming sickness, rehabilitation or disability benefits. Each of these countries has introduced reforms of disability and long-term sickness benefits, combining a tightening up of eligibility rules and work capacity assessments with changes to employment services, and except in Norway the upward trend in disability benefit caseloads was halted in the mid-2000s.

In Norway, where the LFS unemployment rate is just over 3%, some 18% of the working-age population receive health-related income-replacement benefits, which partly represent disguised unemployment and early retirement. About a third of disability benefit claimants are aged below 50, but they have little contact with PES services, and in 2008 just 0.5% exited their benefit to enter employment. Successive agreements between the government and social partners have sought to contain the problem by reducing sickness absence and promoting re-entry to work by disabled people, but the changes have had only limited success.

In Switzerland, after 1990 the inflow into the invalidity pension system was amongst the highest in OECD countries and the stock of claimants aged 20 to 64 years doubled, reaching over 5% of the age group by 2006. Over the past decade the number of invalidity pensioners has been about twice as high as the number of unemployment beneficiaries. Entitlement changes from 2003, establishing a principle of "integration over pensions", were coupled with the introduction of new regional medical services operated by the cantonal authorities, with the aim of reducing the benefit role of GPs and providing uniform and qualitatively better disability assessments throughout the country. Such changes have contributed to a fall in new disability benefit claims from 2004 with the overall caseload slowly declining from 2006. Other changes included the introduction of placement services and employment programmes specifically targeted at disability benefit recipients. These are voluntary programmes delivered through cantonal offices separate from the PES.

In Australia and the United Kingdom, reductions in claimant and survey unemployment in the 1990s were offset by increased recipiency of inactive working-age benefits, especially disability benefits but also lone-parent benefits. In both countries inflows to disability and lone-parent benefits were relatively steady but the average duration of benefit claims increased.

Australia in 2006 restricted new claims of Disability Support Pension to those capable of working less than 15 hours a week (previously it was less than 30 hours a week). In the United Kingdom, reform started slightly later but was more comprehensive (see Box 3.3). In

### Box 3.3. **From Incapacity Benefit to Employment and Support Allowance in the United Kingdom**

The Employment and Support Allowance (ESA) replaced Incapacity Benefit (IB) for new claimants from 27 October 2008. The change transformed an inactive benefit to an active benefit for many of its claimants, and also removed incentives to stay on the benefit for a long period of time. Under the previous system the IB payment increased after six months and then again after one year. An age addition for those who started their claim before the age of 45 years was also removed.

There are two forms of ESA: contributory ESA, for those who have a sufficient National Insurance contribution record; and income-related ESA, which is means-tested. Longer-term qualification for ESA depends on a Work Capability Assessment (WCA), which should be applied to most claimants within the first 13 weeks of their claim. The WCA first determines whether the individual has a limited capability for work, and if so, whether the person is placed in the Support Group or the Work-related Activity Group. For those in the latter group, access to the full rate of benefit is conditional on participation in Work-focused Interviews and undertaking other work-related activity, but not on being available for work or applying for jobs. For this group, from April 2012 contribution-based eligibility for benefit was limited to one year Those who are found by the WCA to be fit for work usually apply for Jobseeker's Allowance.

The WCA is based on the principle that a health condition or disability should not automatically be regarded as a barrier to work. Points to determine capability for work are scored against descriptors for different physical, mental, cognitive and intellectual functions, looking at the impact of a health condition or disability on an individual's ability to carry out a range of everyday activities such as walking, reaching, speech, hearing, sight, memory and concentration. Developments in healthcare and the modern workplace, and certain additional criteria that do not directly measure function (such as terminal illness), are taken into account. A DWP decision maker uses the WCA along with all other available evidence (including any medical evidence provided by the individual's GP or specialist) to determine an individual's capability for work and work-related activity.

The design and implementation of the ESA has been controversial with much criticism of Atos Healthcare, the private sector company with which the DWP contracts to deliver WCAs, which employs the healthcare professionals who undertake the assessments. The assessment methodology has been subject to revisions following internal and external reviews. Despite continuing controversy, the UK Government has pushed ahead with reform, including the reassessment of 1.5 million IB claimants from 2010 to 2014. The outcome of reassessments of the first 600 000 people has been that over 30% of IB claimants were assessed as fit for work, 41% allocated to the Work-related Activity Group and 27% to the unconditional Support Group, although the proportion finally assessed as fit for work is likely be lower due to decisions on appeal.

*Source:* DWP (2010), "Incapacity Benefits – The Reassessment Process", available at *www.dwp.gov.uk/adviser/updates/ib-reassessing-claims/ib-reassessment-process/*; DWP (2013), *A Guide to Employment, and Support Allowance – The Work Capability Assessment, Department for Work and Pensions*, available at *www.direct.gov.uk/prod_consum_dg/groups/dg_digitalassets/@dg/@en/@disabled/documents/digitalasset/dg_177366.pdf*; DWP (2013), "Employment and Support Allowance – Incapacity Benefits Reassessments: Outcomes of Work Capability Assessments, Great Britain", *Quarterly Official Statistical Bulletin*, No. 29, Department for Work and Pensions, available at *http://research.dwp.gov.uk/asd/workingage/esa_ibr/esa_ibr_jan13.pdf*; DWP (2013), "The Universal Credit Regulations 2013", available at *www.legislation.gov.uk/ukdsi/2013/9780111531938/pdfs/ukdsi_9780111531938_en.pdf*.

both countries, the reforms to disability benefits combined tighter eligibility rules, changes to tests of work capacity and increased engagement with employment services. In Australia, rates of return to work for the group of people targeted by the reform increased, but they remained lower than for most other groups of disadvantaged jobseekers.

### *Older workers*

The importance of the design and implementation of activation polices is evident also in the deterioration and subsequent improvement in employment rates for older workers. Historically, benefit entitlements may often have been contribution- and age-related in order to promote participation in social insurance schemes. Policies in the 1980s and sometimes the 1990s then sought to reduce unemployment by encouraging and facilitating early retirement. In the 2000s, many OECD countries reversed these policies. Increases in the employment rates of 60-64 year-old males correspond closely to restrictions on benefits, mainly the abolition of early retirement benefits, the reduction or removal of extensions of UI benefit durations for older workers, and the reintroduction of job-search obligations which previously were waived for older workers on unemployment benefits. In many countries, there is still some remaining scope for eliminating exemptions and relaxation of benefit rules targeted at the older unemployed, encouraged by evidence of the impact of the reforms that have already been implemented.

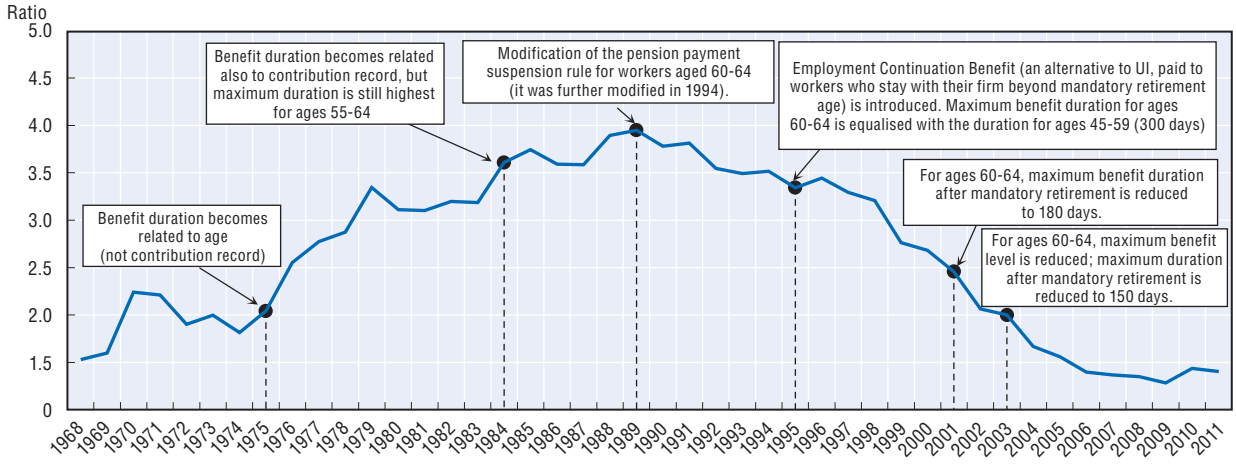
Finland is experiencing particularly rapid population ageing, and was among the first OECD countries to act to tackle it. After the deep recession of the early 1990s, the employment rates of older workers grew faster than those of other age groups, and the unemployment rate for workers aged 55 to 64 fell from roughly 20% in the mid-1990s to 7% or less since 2004. Several factors led to this change. They included sustained high growth rates and labour market reforms which increased employment across all age ranges; reforms of the pension and disability benefit systems; a cohort effect as the baby boom generation, which had relatively high employment rates, entered the older age range; and the changing educational background of older workers. Since the early 1990s, Finland has conducted extensive research into occupational health in the workplace and introduced a series of programmes, involving information campaigns and training of workers and managers, to enhance the "workability" of older employees. However, whilst the hiring rate of older workers (aged 50-64) was comparatively high, the prospects of finding a new job were comparatively poor for unemployed older workers (rather than job changers). One factor continues to be the so-called "unemployment tunnel", which refers to the extension of unemployment benefit to the statutory retirement age for people who enter unemployment after a certain age. Before 1997, this "tunnel" started at the age of 53 years and one month. After reforms in several steps, from 2007 it started at 57 years and one month, and from 2013 it starts at 58 years and one month.

Similar developments occurred in Australia which, in response to high unemployment, in 1994 introduced the Mature Age Allowance, an inactive benefit paid to men aged over 60 who had been unemployed for 12 months or more.[10] By 2003, when this allowance was closed to new entrants, it had a caseload of over 40 000, which was about 8% of the 60-64 year-old male population. By 2009 the number of such claimants had fallen to zero. About 40%-50% of the fall in the Mature Age Allowance caseload appears to have been offset by an increase in the number of unemployed older men claiming Newstart Allowance (NSA): even within the comparatively strict NSA regime, participation requirements are reduced for those aged 50 or more. The closure of another benefit,

Partner Allowance, also tended to increase older-male employment rates. In Ireland, the Pre-Retirement Allowance was closed to new entrants in 2007. In the United Kingdom, income support is still paid without an availability requirement to men above the female pension age, which for many years was 60, but is now being increased to 65.

In Japan, because many workers have a relatively low age-pension entitlement, workers above 60 – and even workers above 65 – have a stronger incentive to work than in most other OECD countries. This contributes to the willingness of older people to accept work with relatively low wages. From 1975, however, Japanese unemployment benefit entitlements were made age-related, reaching a peak of ten months for workers aged 55 or more. After this reform, it increasingly became standard practice for workers to claim UI when they reached the age of mandatory retirement from their "lifetime" job (which in the 1970s could be as low as 55, but by the 2000s was typically set at 60), illustrating the powerful influence of unemployment benefits on labour market outcomes. Indeed, from 1979 to 1998, the unemployment rate for 60-64 year-old Japanese males was three to four times the rate for prime-aged (25-54 year-old) males – which itself more than doubled over this period (Figure 3.3). Towards the end of this period, around 70% of workers in their early 60s collected unemployment benefits and only about 20% of those who started a ten-month benefit claim found a job during those ten months.

Figure 3.3. **Ratio of the unemployment rate of 60-64 year-old males to the unemployment rate of 25-54 year-old males, Japan, 1968-2011**




*Source:* Duell, N., D. Grubb, S. Singh and P. Tergeist (2010), "Activation Policies in Japan", *OECD Social, Employment and Migration Working Papers*, No. 113, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5km35m63qqvc-en*; and *OECD Labour Force Statistics Database*, *http://dx.doi.org/10.1787/data-00309-en*.

StatLink *http://dx.doi.org/10.1787/888932852960*

In 1995, in an early measure aimed at tackling the systematic claiming of UI from the date of mandatory retirement, Japan introduced an Employment Continuation Benefit, which is paid to workers who are rehired by their employer after their company's age of mandatory retirement. In the 2000s, legislation was introduced requiring companies to increase their age of mandatory retirement beyond 60, but it left them the option of implementing this by systematically offering rehiring to all employees who want it and who meet certain criteria, the details of which can be determined by the company. Rehiring is usually on a non-standard contract with a significantly lower wage, supplemented by payment of the company pension and, to a limited extent, by the Employment

Continuation Benefit. As compared with European arrangements, this approach sharply lowers the cost of continuing employment for employers, and encourages older workers to switch to a different job when this meets their needs and suitable opportunities exist, rather than going directly from their "lifetime" job into retirement.

In 2001 and 2003, the maximum benefit entitlement at mandatory retirement age was also reduced from 300 days to 150 days, and the ceiling level of benefits in this case was lowered. By 2006, most of the difference between the unemployment rates of 60-64 year-old males and prime-age males had been eliminated. Older workers continue to be seen as relatively difficult-to-place – as in other countries – but the combination of "soft" legislative requirements on companies to raise the age of mandatory retirement and retain older staff, PES efforts, EI reforms, subsidies and the flexible labour market for older workers are keeping their unemployment spells far shorter than the multi-year unemployment spells ending in retirement that became a major feature of labour market outcomes, and to some extent continue, in some other OECD countries.

### *Lone parents and the treatment of spouses and partners in couple-households*

#### *Lone parents*

The employment situation of lone parents has also been shaped by their treatment within the benefit system. For example, until recently in Australia, the United Kingdom and Ireland, lone parents were expected to care for their children full-time, and were not required to seek employment until their youngest child left school or full-time education. In Ireland this exemption could last until the youngest child was aged 18, or 22 if the child was in full-time education. Higher benefit levels as compared with unemployment benefits, the high cost and restricted availability of childcare services, and poor maternal and parental leave provision, were also disincentives to work. The employment rates of lone parents in these countries are exceptionally low in comparative terms, especially when contrasted with Japan.

Australia promoted part-time work through generous benefit tapers, and from 2003 significantly increased lone-parent participation in employment services and labour market programmes. However, efforts to improve work incentives and access to employment and training programmes and related services had more impact when work-availability and job-search requirements were introduced. This was mainly in 2006 and 2007 in Australia (now applying to lone parents with a child aged 6 or over), and progressively from 2008 to 2012 in the United Kingdom (now applying to lone parents with a child aged 5 or over). In Ireland, which has the lowest lone-parent employment rate in the OECD, some changes to the One-Parent Family Payment were made in 2011, and benefit claims that started after April 2012 will be closed when the youngest child reaches age 12, but it is too early to assess the impact of the changes.[11]

The Nordic states generally have high employment rates of mothers in both couple and single-parent households, but in Norway by the mid-1990s lone-mother employment rates were lower than for married mothers, and ten percentage points lower than in Sweden and Denmark. Until 1998, no work test or time limit applied to Norway's "transitional benefit" for lone parents, which could be claimed until the youngest child was aged 10, and was rapidly withdrawn as earnings increased. In 1998, lone parents with children aged over 3 years (now 1 year) were required either to work part-time, enrol in education or a labour market programme, or register with the PES and be actively involved

in job search. Earnings disregards were made more generous. The benefit was time-limited: as a general rule, it is now granted for a maximum of three years, until the youngest child is 8 years old, although eligibility may be extended for a further two years for those parents participating in education that is necessary for employment. From 2013, lone parents who have previously received a full period of transitional benefit can only receive benefit until the new child is entitled to child care, which is when the child is 1 to 2 years old.

Evaluation results indicate that by 2001 the 1998 reform resulted in increased earnings by lone mothers with young children aged between three and nine, but had insignificant effects on earnings of mothers with younger children although there were positive impacts on their participation in education (Mogstad and Pronzato, 2012). The policy changes were successful in improving labour market attachment of both new lone mothers (i.e. those whose claim started in 1999 or later, who were subject to the reformed regime from the outset) and "persistent" lone mothers (i.e. those who had been on transitional benefit for at least four years before the reformed regime applied to them). The persistent lone mothers experienced larger gains in earnings than the new lone mothers, but they also experienced a much larger loss of out-of-work benefits, resulting in a net decrease in mean disposable income and increase in the poverty rate. From a policy perspective, the positive impact on outcomes for new lone mothers gives a more representative view of the expected long-term impact of the reform. The 2006 Welfare to Work reforms in Australia also had much less impact on job-finding rates for existing claimants of Parenting Payment Single as compared with new claimants, but this was partly because the existing claimants stayed on a higher rate of payment (further reforms are taking place in 2013).

The exceptionally high employment rate of Japanese lone parents, at 85%, is also related to their differential access to benefits in and out of work. Estimates vary but there are at least 600 000 and may be up to a million single-mother households in Japan, of which only 93 000 were receiving Public Assistance in 2006. In addition to the social stigma of claiming the benefit, municipal welfare offices are inclined to evaluate lone-parent capacity to work rigorously and suggest also that other family members support them.

By contrast, 956 000 single mother households in Japan in 2006 were receiving the Child-rearing Allowance, which is means-tested but not conditional on labour market status. This can be claimed until the youngest child is aged 18. The benefit amount is set well below subsistence level, which enables the benefit withdrawal rate in relation to earnings to be set at a low level. This more easily available benefit leaves a stronger financial incentive to work long hours than is present in most other OECD countries. The benefit, when combined with preferential access to places in day-care centres, at heavily subsidised rates for mothers on low incomes, makes it possible even for mothers with rather low earnings capacity to achieve net incomes similar to – although probably still below in some cases – Public Assistance rates. These factors help to explain why a large proportion of this group works full-time and Japan has nearly the highest lone-parent employment rate in the OECD. Unfortunately, the high lone-parent employment rate does not translate into low levels of child poverty and many single mothers report that their lives, working full-time with still relatively low net incomes, are difficult.

### *Spouses and partners*

In several countries, the focus on lone-parent dependency rates has been accompanied or followed by greater attention to the treatment of spouses and partners

who are supported by family-based payments. When social assistance is claimed, job-search and related requirements now usually apply to a partner or spouse unless they are the principal carer for young children, which was not always the case in the 1990s. However, in Finland the unemployment assistance benefit has long been paid separately to both members of a couple, if both register as unemployed, and this is associated with high female employment rates (see Box 3.4).

### Box 3.4. **Individual benefit treatment of couples in Labour Market Support (LMS) in Finland**

A significant feature of the LMS unemployment assistance benefit in Finland is that, although means-tested, it is payable separately to both members of a couple if both are registered as unemployed. Although each spouse's benefit is means-tested on the couple's joint income, high disregards ensure that this does not reduce the amounts payable if the couple has no income from other sources. This seems to have been a feature of LMS and the previous form of unemployment assistance ever since its introduction in 1971.

The rate of reduction of LMS when the household's income is above a disregard level was reduced from 75% to 50% in 1997. In situations where the spouse is working, a spouse's earned income disregard applies, and this was sharply increased to EUR 236 per month in 2000, and further to EUR 536 per month in 2003. Calculations suggest that since 2003 even a person with a spouse on Average Production Worker earnings could qualify for LMS, although the rate of payment would be significantly reduced by means-testing. In the 2013 budget, means-testing with respect to spousal income was abolished.

Unemployment benefit claimants, even the parents of young children, must declare themselves to be seeking full-time work. The financial incentive for spouses to register independently, which in turn requires them to be available for full-time work, probably contributes to the high incidence of full-time work in Finland. Van Gerven (2001) notes that "the statistics also reflect that women rather register themselves as unemployed rather than remain at home as housewives. This tells us about the strong norm of wage work… (the) Finnish welfare state supports women strongly to enter the labour market with universalistic and individualistic benefits and services". If the women added to total labour supply are on average one-quarter unemployed and three-quarters (full-time) employed, the taxes and social security contributions paid on the salaries of the additional employed women will probably more than cover the cost of the benefits paid to the additional unemployed women. Although the high rate of unemployment benefit recipiency in Finland with low levels of active job search is a cause for concern, the potential positive effects of benefit arrangements such as this should also be kept in mind.

*Source:* Duell, N., D. Grubb and S. Singh (2009), "Activation Policies in Finland", *OECD Social Employment and Migration Working Papers*, No. 98, OECD Publishing, Paris, *http://dx.doi.org/10.1787/220568650308*; Ministry of Finance (2012), *Budget Review 2013*, available at *www.vm.fi/vm/en/04_publications_and_documents/01_publications/01_budgets/20120917Budget/Budget_review_september2013_MEDIA.pdf*.

In 1995 Australia individualised means-tested benefits along the same lines as in Finland. Women in couples who had previously been considered dependent spouses were required to claim benefit in their own right. Those without children could in most cases only claim unemployment benefits, which imply participation in job-search monitoring and assistance measures. Those with children who were designated as the "principal carer" could claim Parenting Payment (Partnered). This was at first an inactive benefit, but reforms in 2002 introduced activity requirements for recipients of Parenting Payments

(both Single and Partnered) with teenaged children, and from 2006 Parenting Payment (Partnered) was restricted to parents with a child aged less than 6, approximately matching the reforms applied to lone-parent benefits.

In the United Kingdom, Joint Claims requirements are applied to a variety of out-of-work benefit payments. In the case of means-tested unemployment benefit (Jobseeker's Allowance) claims, requirements for able-bodied spouses or partners without children to make a Joint Claim (i.e. separately register as unemployed) were applied in 2001 to couples with one member aged 25 or less, and then progressively extended to cover couples of all ages from 2012. However, until 2013, couples with a child were not required to make a Joint Claim until the child reaches age 16 (or 20 in some circumstances).[12] In Ireland, one member of a couple can still claim Jobseeker's Allowance with an addition for a dependent spouse who does not sign on as unemployed, although a wide-ranging reform is under discussion.

### *The impact of extending activation requirements*

The country reviews contain considerable evidence suggesting that for demographic groups with work capacity, a lack of activation requirements attached to their entitlements contributed to increased benefit caseloads. Conversely, the extension or reinvigoration of activation requirements for such groups can reverse increases, sometimes significantly.

As discussed previously, Australia targeted reforms at such inactive groups from 1995, but particularly from 2003 to 2007, and for most inactive benefits activation has been a success. The reforms in some cases lowered the benefit amount payable to a particular demographic group. However, their impact can mainly be attributed to the participation requirements and employment assistance measures associated with unemployment benefits, without which claims would merely have been diverted from one benefit to another. By 2010 or 2011, the combined caseloads of Mature Age Allowance, Partner Allowance, Widow Allowance, and the two Parenting Payments were about 400 000 below peak levels prevailing earlier in the 2000s, equivalent to 4% of the labour force. In most cases where access to an inactive benefit was restricted, long-term and net transfers of the target group to other inactive types of income support were relatively small. In many cases, people in the target group no longer claimed income support at all. For those who did make a claim for unemployment benefit, claim durations tended to be shorter than had been the case when they could claim an inactive benefit. Although only partial evidence is available concerning the impact of the reforms on employment rates, before-and-after comparisons suggest that lower benefit recipiency was fully matched by higher employment rate in the case of older workers, but only about 2/3 matched by higher employment rates in the case of lone parents.

The Australia review highlights experiences when Partner Allowance, an assistance benefit without job-search requirements that previously was payable to older spouses, was closed to new entrants. Inflows by 45-64 year-old married women onto Partner Allowance fell from about 2 000 per month to zero, while their inflows onto unemployment benefits (which had the same monetary value increased by only 800 per month. However, at the same time inflows to income support by older married males also fell by slightly more than 1 000 per month. It seems that in the case of a couple with one partner unemployed, the closure of Partner Allowance represented an increase in total participation requirements, and in many cases this led to male partner to start work (or in some cases, retain an existing job).

## 4. Activation regimes and interventions in the unemployment spell

Interventions in the unemployment spell by PES offices can include the direct placement of jobseekers by employment counsellors (a process which requires work on vacancy acquisition), encouragement and monitoring of independent job-search efforts, help to tackle or better manage barriers that diminish employability and capacity to take jobs, and referrals to different types of ALMPs.

OECD comparative studies have documented the design, sequencing and intensity of these interventions. Evaluation studies of particular interventions often report that they increase the rate at which jobseekers enter employment or otherwise cease claiming benefits, and are relatively cost-effective, although for some interventions (e.g. benefit sanctions) a more-rapid return to work may be associated with lower earnings.

A "work-first" approach may be implemented through intensive interventions with a focus on job search, job matching and referrals. It would typically start with an emphasis on a speedy return to work from the very first contact, and the early agreement of an individual action or "back to work" plan. This would be followed by regular monitoring, seeking information on job-search activities and confirmation of unemployment status. Regular face-to-face contact with an employment counsellor (also called a personal adviser, or a case manager) is an important determinant of system effectiveness. The counsellor can check job-search activity, raise awareness of job-search techniques, make referrals to vacancies, improve motivation and self-confidence and, where necessary, refer a claimant to a "menu" of further support, ranging from job-search training, Job Clubs, skills assessment, and short basic skills or training programmes, through to longer-duration skills or employment programmes. Often all types of referral may in principle be compulsory, although some programmes such as Job Clubs and longer-term vocational training are suitable for mainly voluntary participation.

This section reviews some of these issues and then considers in more detail the pattern of interventions implemented in Switzerland which was considered to have a strict activation regime for the unemployed, contrasted with the situation in Ireland where the regime was not effectively activating the unemployed.

### *Interventions in the unemployment spell*

Interventions in the unemployment spell help to enforce eligibility criteria for unemployment benefits, achieve immediate job placements and improve the chances of future job entry. The requirements for reporting, attendance, or participation as a condition for benefit often also deter some claims and/or have a motivation effect, increasing rates of exit from benefit.

Each of the review countries participated in an earlier and more comprehensive survey of PES "interventions in the unemployment spell" which summarised findings from 29 member countries based on a survey distributed in 2004, with results published in OECD (2007). National practices reported in the reviews identified additional features of the situation and additional practices, and recent or planned changes.

Table 3.2 gives comparative information on processes at the start of a claim to unemployment benefit and the subsequent frequency with which claimants had to confirm their unemployment status and report any changes in circumstances. The focus here is on reassessing the summary information reported in 2007 (given the risks of misreporting due to varied interpretations of the concepts, and difficulties in defining a unique correct response) using the information in the reviews.

Table 3.2. **Registration procedures, benefit entitlement and confirmation of status**

As reported in 2007

| | Benefit entitlement starts before (B), simultaneously with (S) or after (A) registration for placement[a] R = benefit pay retroactive back to date of loss of work | Length of waiting period (for which benefit is not payable at the start of unemployment), if any | Timing of first intensive interview and extent of profiling and Individual Action Plan (IAP) at that interview | Reporting of status, by being regular (R) or not, length of intervals, and in-person attendance (P) or not |
|---|---|---|---|---|
| Australia | B | Seven days | At registration, often with profiling and IAP | R, P, every two weeks |
| Finland | S | Seven days | Within a month, with profiling | R, every month |
| Ireland | B, R (if justified) | Seven days | After one month | R, once a month, P (in most cases) |
| Japan | A | Seven days | At registration | R, P, every four weeks |
| Norway | A | Four days | Within three weeks | R, every two weeks |
| Switzerland | B | Five days | After 16 days on average | R, P, every month |
| United Kingdom | S | Three days | Usually within a week | R, P, every two weeks |

*a)* Classification as B = before includes countries that offer retroactive pay, and those where the first contact with the PES has no or little placement contact.

*Source:* OECD (2007), "Activating the Unemployed: What Countries Do?", Table 5.1, Chapter 5 in *OECD Employment Outlook 2007*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/empl_outlook-2007-en*.

### *Profiling*

Jobseeker profiling procedures allocate jobseekers across a small number of categories. Frequently profiling is implemented at the start of the unemployment spell; a specific questionnaire is addressed to clients to gather additional information about their characteristics; allocations to categories are based upon a regression model, which predicts the client's probability of becoming long-term unemployed as a function of their characteristics; the categories range from easiest-to-place to hardest-to-place; and the different categories are referred to different services.

In 2007 a jobseeker profiling procedure, conducted not long after initial registration, was reported for Australia and Finland. Australia has profiled all people claiming unemployment benefits since 1998, and the review describes this background and details the 2009 revision of the Job Seeker Classification Instrument (JSCI) and its implementation processes. Conduct of the JSCI questionnaire is a significant task for Centrelink (the benefit agency), and there are debates about its adequacy, and procedures for revising an individual's JSCI score if new information becomes available. By contrast, in Finland the IT system generates a score representing the risk of long-term unemployment automatically based on existing data. Counsellors can use this to allocate jobseekers to two categories of service requirements (information services, or development of working life skills), but this is not mandatory, and the actual impact of the profiling tool has been limited (Riipinen, 2011). Norway introduced, from 2010, a procedure where future clients of all working-age benefits are assessed to determine their "work-capability" as defined by their personal characteristics and the counsellor's judgement of the need for special assistance. As part of this procedure, people with health problems will get an individual action plan involving employment-related activity. Evaluations find that implementation of the procedure has been a challenge. Ireland's Department of Social Protection (DSP) now also implements a profiling model as part of its new activation policy (see Box 3.6).

### *Individual Action Plans (IAPs)*

Individual Action Plans (IAPs) are written plans for job-search-related actions by the client and services to be delivered by the PES, established in an interview between the client and a PES counsellor. Frequently participation in the IAP procedure is a requirement for benefit and failure to carry out the actions in the plan can lead to a benefit sanction. Frequently IAPs are set up at the start of the unemployment spell and then updated at intervals, although the earliest IAP procedures in the 1990s tended to be implemented after some months of unemployment, and of limited duration, and often expired after some months.

Table 3.2 did not report an IAP procedure at the time of the first intensive interview in Norway, Switzerland and the United Kingdom, but the reviews identified procedures that merit mention under this heading. In Norway at the initial interview, all registered unemployed sign an "individual service declaration" which outlines job-search activities to be carried out in the period up to the next interview with the employment officer. In Switzerland, the cantons could use a profiling system and set up an IAP with new jobseekers, but most did not except for Geneva, which identifies hard-to-place jobseekers for possible outsourcing to a private provider. However, new jobseekers had to sign a "personal job-search agreement" with their counsellor acknowledging the approximate number of job-search actions that they have agreed to report per month. Similarly, the United Kingdom requires new jobseekers to have a Jobseeker's Agreement, which sets out their actions to find work and any agreed restrictions on the type of work sought, before unemployment benefit can be paid.

Finland and Japan each had several types of IAP. In Japan, participation was voluntary and participant numbers were only about 4% of the annual jobseeker inflow. In Finland, the "initial job search plan" was not set up at the first intensive interview or subject to any general rules about its timing, and the measures within it were not obligatory. Updated plans designed for use later in the unemployment spell could foresee obligatory measures, including participation in ALMPs, but PES officials tended to see them as helpful for finding the path towards the open labour market, or for the accurate targeting of information concerning jobs or other relevant services. An "activation plan" was established after 500 days (100 weeks) or 680 days of unemployment, which is the time at which the municipality becomes responsible for paying half the cost of the LMS benefit, and at which the jobseeker can be referred to a joint service centre (LAFOS) (see further below).

### *Regular reporting of status and regular counselling interviews*

As reported in 2007 (see Table 3.2), the review countries all required regular reporting of unemployment status every two or four weeks, with in-person attendance except in Finland and Norway. In Finland, this procedure is being increasingly implemented through e-services: in 2012, 32% of these reporting procedures were carried out in person, 40% though local PES phone services, 6% through national phone services and 22% by Internet. In Australia, from July 2010 jobseekers already assigned to an employment service provider have been allowed to and encouraged to submit fortnightly payment renewal applications by telephone or online; and there are likely to be similar developments in other review and non-review countries.[13]

In Japan, Switzerland, and the United Kingdom, the reporting sessions with in-person attendance requirements shown in Table 3.2 include employment counselling and possible referral to vacancies, which is not the case in Ireland. In Australia, the 2010 revision added

counselling content to Centrelink interviews for non-disadvantaged (Stream 1) jobseekers in the first three months of unemployment, who are not expected to visit their Job Services Australia (JSA) provider.

In Australia, except for non-disadvantaged (Stream 1) clients in the first three months of unemployment, as a condition for payment employment service providers are required to have in-person interviews with clients once a month during the first year of unemployment and once every two months subsequently (when the client is in the Work Experience Phase, which involves different types of contact). In Finland, after initial registration a second interview is held within a month, and after that there is no set procedure, although one local office reported that during the first three months people are asked to visit every four weeks. In Norway, intensive interviews covering a range of topics take place at least once every three months.

### *Job-search requirements*

Table 3.3 shows much variation in the number of job-search actions that claimants were required to report. Often this involves listing job applications and providing suitable documentation when required, although in several countries guidelines allow a variety of actions or steps other than direct job applications, such as researching advertised vacancies, to count as job search. Requirements could be from as little as two job-search actions per month in Japan to as many as 20 in Australia.

Table 3.3. **Job-search requirements**

As reported in 2007

| | Frequency at which unemployed have to report on their job search | Number of actions to be reported in a month |
|---|---|---|
| Australia | Every two weeks | From 8 to 20 |
| Finland | From one week to one month | Variable requirements (depending on individual action plan) |
| Ireland | Variable requirements | Not specified |
| Japan | Once every four weeks | Two |
| Norway | Every three months | Not specified |
| Switzerland | Once a month | From four to ten |
| United Kingdom | Every two weeks | Ten |

*Source:* OECD (2007), "Activating the Unemployed: What Countries Do?", Table 5.2, Chapter 5 in *OECD Employment Outlook 2007*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/empl_outlook-2007-en*.

In Japan, attendance at a PES seminar can count as a job-search action, whereas in Europe attendance would typically be obligatory, and not counted as an independent search action. The Australia review reports that short-term unemployed jobseekers are issued with a Job Seeker Diary requiring up to ten job-search actions per fortnight, but often fewer outside active urban labour markets; in this case actions involving some kind of employer contact seem to be expected. However this procedure is not used for the longer-term unemployed; they may instead report job-search actions in regular interviews with the benefit agency Centrelink, or job-search activities may appear in their Employment Pathway Plan, which is set up and monitored by their employment service provider, with cases of non-compliance being referred to Centrelink. The Swiss review confirms the information in Table 3.3, noting that counsellors have substantial leeway to reduce the number of actions required per month below ten, but jurisprudence has considered that three actions per

month are normally insufficient. In the United Kingdom, the number of actions can be below the ten per month shown in Table 3.3 but requirements of three actions per week, and recently sometimes six actions per week, are also reported.[14]

In Norway, although the number of job-search actions per month is not specified, the initial interview specifies job-search activities to be carried out for the next interview, and jobseekers must report their independent job-search activities either by showing copies of job applications or by filling in a "job log" which lists the jobs and employers contacted and their outcomes. This seems fairly similar to the situation in Australia, Switzerland and the United Kingdom. In Ireland, job search was verified only through availability reviews conducted after seven months and again after 12 or 15 months of unemployment, and there was no evidence of jobseekers being given a required number of actions per month. In Finland, a 1998 reform called for the employment service to establish job-search plans and monitor independent job search after five months of unemployment, but in 2004 it was reported that employment offices had found this procedure not at all useful. The review did not find evidence that regular job-search reporting as shown in Table 3.3 is taking place, and it states that job-search monitoring procedures still had little effect at local employment office level.[15]

### *Direct referrals*

Direct referrals are procedures where the PES counsellor refers a client to a job vacancy, with benefit recipients being at risk of benefit sanction if they fail to apply. Direct referrals can assist employers by speeding up the matching process, bring jobseekers who use inefficient job-search strategies into contact with vacant jobs and serve as a work-test. OECD (2007) estimated the annual frequency of direct referrals per person in the average stock of registered unemployed and concluded that, even in high-referral countries, the number of referrals was "surprisingly low" given the potential advantages and the opportunity counsellors had during intensive interviews to orient their clients to advertised vacancies. However detailed procedures are quite varied – for example the counsellor may refer the client to a list of job vacancies, suggesting that they apply for one or two – and the coverage of any statistics reported is likely to vary. Statistics may relate only to procedures where the jobseeker is given a form to be returned by the employer, not necessarily including referrals when this explicit reporting procedure was not required.

The reviews report that in Ireland direct referrals were used to only "a minor degree", but there was more or less regular use of direct referrals in Finland, Japan, Norway, and Switzerland:

- In Finland, the Ministry of Labour set itself a target of increasing the number of direct referrals, and 80 800 referrals were made in 2007, which is about 0.34 per year per person in the average stock of UB recipients.[16] The proportion of notified vacancies filled by direct referrals was still only 8.6% in 2007 compared with 30% ten years previously, reflecting the advance of self-service matching and expansion of PES e-services. However, the number of placements achieved through direct referrals fell less sharply, and annual benefit sanctions for refusal of suitable work increased from 2.5% of the stock of claims in 1997 to 5% in 2007, a high level in international comparative terms.
- The Japan report cites the existing estimate (OECD, 2007) that in 2006 about 4.2 direct referrals per year per registered unemployed person were made.

- In Norway in 2006, about 38 600 direct referrals were made for 48 000 UI recipients, an average of about 0.8 per recipient. Here PES officers usually send out letters to unemployed clients detailing the vacancy, including a warning of possible sanctions upon job refusal.
- In Switzerland, in the latter 2000s, counsellors made between 200 000 and 300 000 referrals per annum for a stock of 100 000 to 150 000 unemployed people, i.e. about two direct referrals per UI recipient. PES vacancy registrations in Switzerland in 2007 were only 11% of the number of hirings (compared with over 50% in Finland, Japan, Norway, and the United Kingdom) which suggests that many jobseekers find jobs through independent job search, and that direct referrals are concentrated at the lower end of the labour market.

In Australia, direct referrals are made by Job Services Australia (JSA) providers and there are no national statistics for them. However, larger employment service offices tend to employ one "reverse marketer" for every five or six counsellors, whose role is to find undeclared job vacancies in the local economy or, more often, persuade an employer to create a vacancy suitable for a particular jobseeker client. This suggests that direct referrals play a large role in the placement process for disadvantaged jobseekers. Although short-term and non-disadvantaged unemployed might get useful advice from their service provider, they are usually motivated to find work independently.

### *Referrals to active labour market programmes (ALMPs)*

Mandatory referrals can be to short job-search assistance courses or to longer term work experience or skills programmes. Referral to more-intensive ALMPs (i.e. a full-time or significant part-time activity other than job search) also may act as a quasi-work test and assist participants in improving their employability and other skills. In Japan, with its short UI eligibility period, participation in more-intensive programmes was voluntary. In all the other review countries benefit recipients were liable to sanctions if they failed to comply with certain types of referral to an ALMP by a PES counsellor. The risk with longer-duration programmes is that the advantages of participation may be reduced by a "lock-in" effect due to lower levels of job search. This is partly offset where job-search and work-availability requirements continue to apply during programme participation. However, in the case of vocational training where course completion is required to acquire an adequate skill set and certification, interruption of participation to take up a job offer may be counterproductive.

Only Australia has a general obligation to participate in an ALMP, usually training or work experience, at a certain threshold in the unemployment spell. Non-disadvantaged clients also have to complete 40 or 60 hours in job-search training or another activity after their first three months of unemployment. Until 2009, the main obligation applied after six months of unemployment, but it now applies after one year, when clients enter the Work Experience Phase and their JSA provider must organise up to 390 hours of participation in work experience, training and related activities. Participants who remain unemployed stay in the Work Experience Phase in subsequent years; from 2012, the maximum annual hours requirement applying in the second year was increased. In the United Kingdom, since 2011, unemployed claimants enter the Work Programme after nine months if aged 18 to 25, or a year if older, but providers are not obliged to refer clients to an ALMP at a particular time, or at any time. In Norway, in parallel with the introduction of the National Employment and Welfare Service (NAV), the role of municipal workfare has been

reduced for social assistance clients, as the Qualification Programme gave them greater access to state ALMPs with a new benefit set at a higher level than social assistance (Schafft and Spjelkavik, 2011).

In Finland, Ireland and Japan, vocational training is a significant ALMP, and participants in full-time training are not treated as jobseekers. In Ireland, a participant in part-time training or the Community Employment scheme might in principle be required to apply for a job vacancy. In Norway, participants in ALMPs are required to be available for ordinary work but "the PES will seldom instruct jobseekers to discontinue ALMP participation since completion is considered to increase job possibilities" (Venn, 2011). In the three other countries, jobseeker status is maintained during participation in certain types of ALMP:

- In Switzerland, participants in ALMPs are still registered with the local employment office and must in principle continue their job-search activities, with exceptions for Start-up incentives and occasionally for other kinds of ALMP.
- In Australia participants in Work for the Dole, which involves attendance for no more than 15 hours per week, can still be required to report multiple job applications each fortnight to Centrelink, or referred to job vacancies by their employment service provider. Since 2009, Work for the Dole activities are delivered by the client's employment service (JSA) provider, which facilitates such referrals. However, since 2010 the average stock of participants in Work for the Dole has been around 10 000, whereas about 80 000 UB recipients in training programmes are generally exempt from job-search and related requirements.
- In the United Kingdom, apart from specialist disability programmes which typically are not targeted on unemployment benefit recipients, until 2010 the main longer-term programmes were the New Deal options for young people (Full-time Education and Training; Voluntary Sector; Employment Option; and Environmental Task Force), and the "Intensive Activity Period" for long-term unemployed claimants aged over 25. Both variants required participation for 30 hours per week and the programmes by design included elements of job-search training. However, participants went onto a wage or training allowance and would not normally be referred to unrelated job vacancies or required to report their independent job applications each fortnight. Currently, jobseeker status is maintained during participation in Mandatory Work Activity but this is a short (four-week) programme. As in Australia, the contracted employment service providers can probably refer clients to job vacancies even during their participation in training or work-experience activities.

### *Variation of activation requirements*

In the review countries, benefit regulations only sheltered all benefit recipients from strict activation requirements to a very limited extent. In Australia and Norway, from the start of the unemployment spell the person should accept any kind of work they can do. In Finland, Ireland and the United Kingdom, jobseekers are able to restrict their job search to work in their normal occupation, or refuse work that does not correspond to their skills (the exact concept differs by country), for the first three months of their unemployment spell, but after three months any job is considered suitable, subject to standard safeguard clauses (which concern ability to perform the job, and regular work conditions). By contrast, legislation in Switzerland states that a suitable job should take reasonably into

account the jobseeker's ability and previous occupation (although this clause is not applicable to people aged less than 30), and should not significantly compromise prospects of a return to the previous occupation, if there are prospects for this within a reasonable time. However, this sits alongside a provision that the unemployed person must do everything within their power to avoid unemployment or shorten their unemployment period, and statements that the first clause can be waived "if necessary", which leaves counsellors with considerable discretion.

In Switzerland, unemployed persons can refuse a job offer if it pays less than 70% of previous salary, but elsewhere references to previous conditions are time-limited or not allowed at all. However, there are other circumstances in which the general requirement to search for and be available for full-time work is relaxed, allowing claimants to limit the hours, conditions and locations in which they are expected to take employment:

- In Australia, unemployment benefits are maintained during sickness, and this is probably true in several other countries.
- Until the 2000s and sometimes into the 2010s, as discussed in Section 3, many OECD countries paid older workers an unemployment benefit or similar benefit without an availability-for-work requirement but have now reapplied this requirement. However, some age-related variations of activation provisions are still in place. In Australia, workers aged 55 who are engaged in voluntary work are required to accept a suitable offer of paid work, but are otherwise exempt from activity requirements. In Finland, the UI benefit entitlements extended to retirement age are not formally exempt from availability requirements, but job-finding rates for this group are low in practice.
- In Australia and the United Kingdom, parents with child-care responsibilities can claim full unemployment benefits while being available only for part-time work. When working part-time, in Australia the benefit claim can be maintained at a reduced rate (depending on earnings) without further activity requirements. By contrast, in the United Kingdom for work of less than 16 hours per week, job-search and related requirements are maintained, and for work of 16 or more hours, an in-work tax credit, without job-search requirements, is often payable instead, although this will change with the introduction of the Universal Credit (DWP, 2013c).
- Claimants with reduced work capacity are only required to be available for hours of work in line with their assessed capacity. Assessments that allow a person working at capacity to retain an unemployment benefit payment on a long-term basis are probably rare in some countries.

In Switzerland, when workers with full requirements take up part-time work, and continue to receive unemployment benefits under the "intermittent pay" scheme, the requirements are relaxed. Although these workers must continue their search for better-paid work, they have PES counselling interviews every two months rather than monthly, and they are allowed up to two months to give notice to their part-time employer, whereas wholly unemployed workers must be available to start a job immediately.

Requirements for participation in longer-term ALMPs are also varied for certain client groups:

- Certain groups of youths are systematically required to participate. In Australia since 2009 early school leavers (defined since 2011 as people aged up to 21 who have not completed 12 years of school) no longer have job-search requirements. To qualify for income support, they must participate full-time (or part-time in combination with other

activities such as part-time or voluntary work) in education and training. Finland has a long history of "youth guarantees"; starting 2005 every unemployed young person was to be offered training, trainee work or a workshop place after three months, although this was not systematically enforced. Since 1994, Norway guarantees an offer of an ALMP to all young people aged 16 to 19 not in education and/or regular work. Currently youths aged 20-24 year-olds are guaranteed an activity plan within one month.

- In Australia, the maximum Work Experience Activity requirement in the second year of unemployment for participation in Work for the Dole, for those who take up no other option, is 390 hours, but the requirement is reduced to 150 hours for parents with child-care responsibilities, those with partial capacity to work, and people aged 40-49, and to zero for those aged 50 or more. There is no formal reduction in this type of participation requirement for older unemployed workers in Finland, Norway, Switzerland or the United Kingdom. However, the actual participation rates of older workers are reported to be relatively low in Norway, and relatively high in Switzerland. (As already noted, in Ireland and Japan ALMP participation has not generally been obligatory.)

Some modulation of general availability and ALMP participation requirements is arguably necessary to allow the extension of requirements to wider groups of beneficiaries, who have greater constraints on their availability or more-limited work capacity. In Australia, where inactive benefits have been (from 2003 onwards) phased out for several large population subgroups, about a quarter of the non-voluntary jobseeker caseload has a reduced-hours work requirement related to partial incapacity or child-care responsibilities, and close to 20% are exempt from Work Experience Activity requirements due to age. Also over 15% of unemployment benefit recipients (of whom some would be already in the above-mentioned groups) are exempt from job-search requirements for temporary reasons such as illness and personal crisis and sometimes for longer-term reasons such as responsibility for caring for four or more children. None of the other review countries appears to define and record the reasons for exemptions from immediate job-search requirements with similar precision. In the United Kingdom, this may be related to a view that jobseeker profiling (except by duration of the unemployment spell) is inefficient: here, counsellors and programme evaluations describe some jobseekers on active benefits as "not job ready", but these assessments are not recorded administratively. Even in Australia the authorities are reluctant to spell out in detail what counts as a "personal crisis" situation.

### *Work-related activity requirements*

The review countries define some work-related requirements that fall short of requiring either job search or immediately availability for work. These intermediate requirements acknowledge reduced work capacity and enable policy makers to negotiate the political opposition that is likely to be experienced when extending activation requirements to the target group. As mentioned above, in Norway recipients of Work Assessment Allowance (previously occupational rehabilitation benefit) are generally required to participate in work preparation measures and ALMPs, but not to be immediately available for work.[17] In the United Kingdom, for several target groups, "Work-focused Interviews" were introduced in 2001 (see Box 3.5) and disability benefit reforms introduced a Work-related Activity benefit status (see Box 3.3 above). In Australia, when "participation requirements" were first extended to lone parents whose youngest child was aged between 13 and 15 years in 2003, the regulations required participation in 150 hours of approved work-related activities each 26 weeks. In

Box 3.5. **Work-focused Interviews and mandatory work preparation in the United Kingdom**

Mandatory "Work-focused Interviews" (WFIs) for working-age benefit claimants not subject to job-search and work-availability requirements were introduced in 2001. All working-age claimants are required to attend a face-to-face WFI at the start of their claim, albeit a Jobcentre Plus Personal Adviser has discretion to "defer" the WFI and there are some limited exemptions for prescribed groups. At the WFI a claimant must be prepared to answer questions (if asked) about such matters as:

- Educational qualifications/vocational training.
- Employment history and employment related skills.
- Any current paid/unpaid employment.
- Caring responsibilities.
- Any medical condition which puts the person at a disadvantage in getting a job.

After the initial compulsory interview at the start of a benefit claim, different groups of claimants are subject to different attendance requirements and the WFIs develop into a flexible activation instrument for lone parents, partners and people on disability benefits.

Since October 2005, most claimants who attend a WFI have been required to complete an action plan agreed with a personal adviser, which might include referral to an employment programme. Personal advisers now have discretion to encourage and require such claimants to participate in an unspecified range of work-related activities but may not require a person to apply for a job, undertake work, or undergo medical treatment.

This work preparation regime is underpinned also by a differentiated sanctions system. It is not as strict as that which applies to the unemployed and the penalties involved reflect the nature of the rule breached, the conditionality group of the claimant, and any hardship that might be caused to children.

Australia and the United Kingdom, it was only after several years of testing such intermediate activation requirements that job-search and availability requirements were extended more generally to lone parents.

### *Sanction provisions and sanction rates*

In each country, people subject to job-search requirements could incur penalties if they rejected job offers, failed to seek work or to attend appointments or employment programmes, or otherwise made themselves voluntarily unemployed. Sanctions often are of fixed duration. Where they are designed to ensure compliance with activation requirements, they often escalate in severity when non-compliance is repeated, but may be suspended or withdrawn if the individual reengages with the service and/or undertakes specified actions. When sanctions are imposed for assistance benefits, there are often safeguards designed to stop family incomes falling below a given subsistence level or specific rules to mitigate the impact on children in families or on other vulnerable clients. Compliance activities might start with a warning, as in Japan or in some cases Australia and the United Kingdom. Failure to attend scheduled appointments with the benefit administration would often result in the suspension of benefits until the client complies, but in Australia a client's first failure to attend a scheduled appointment with an employment service provider rarely if ever had consequences for benefits, and in 2009/10

only one sanction was actually imposed for around every 400 missed appointments (with attendance at these appointments being in principle obligatory in many, though not all, cases). A failure to attend a mandatory employment programme could result in a fixed period of non-payment, or be construed as indicating that the individual is not available for work, and therefore is ineligible for benefit.

The reviews did not identify significant use of benefit sanctions for UI in Japan. They also concluded that in Ireland, sanction rates for voluntary job leaving, refusal of work and refusal of an ALMP place were close to the lowest among OECD countries, while annual sanction rates for insufficient job search, which is assessed through reviews of job search after seven months, again after 12 or 15 months and annually thereafter, were about 0.7% of the stock of benefit recipients, which is roughly comparable with rates in other countries that assess job search via occasional retrospective interviews, but below levels for countries that require job-search actions to be reported every two or four weeks.[18] The reviews of Australia, Finland, Norway and Switzerland indicated that sanctions were more widely used:

- As regards social assistance benefits, in Switzerland national guidelines indicate that basic social assistance benefit can be curtailed by 15% for a maximum period of 12 months, but policies are determined by cantons. For example, three cantons have no provision for sanctions, but in Zurich employable applicants for social assistance must first take part in a four-week basic employment programme where they are paid a wage, which facilitates more-rigorous sanctions where necessary. In Finland, since 1998 municipalities have been expected to apply a 20% reduction in social assistance cases when a first sanction is applied to an LMS benefit, and a 40% reduction in the case of repeated infraction. Prior to this, municipal social assistance often made up the difference when a sanction was applied to an individual's LMS benefit (see Box 3.2 above).
- Sanction rates for UI benefits are high in Finland, Norway and Switzerland. In Finland (where statistics relate to both UI and the LMS benefit), no sanctions for insufficient evidence of job search are recorded (although there are some sanctions for failure to agree or carry out an action plan), but in 2007 sanctions totalled nearly 5% of the stock of benefit claims for refusal of suitable work and 17% for refusal or quit of an ALMP. These are high sanction rates in international comparison, and the usual sanction is a two-month loss of benefit. In Norway the annual number of sanctions was about a sixth of the average stock of UI recipients in 2003 but, as unemployment fell, by 2007 this ratio increased to nearly two-fifths. In Switzerland, about a quarter of all UI claimants were sanctioned in 2008, with an average benefit suspension of two and a half weeks; the largest category of sanctions was for insufficient personal effort, usually lack of sufficient job search, for which the sanction is relatively mild.
- In Australia, policy controversy and innovations, including "clean slate" provisions (where behaviour prior to a policy reform is not taken into account when assessing persistent or repeated non-compliance), have generated vast swings in sanction rates through time. Since 2000, the annual number of sanctions imposed (aggregating sanctions of very variable severity, but not counting the current category of "connection failures" which result in no loss of benefit) has ranged from over 300 000 to below 25 000. It was about 140 000, equivalent to 20% of the stock of benefit claims, in 2011/12.

In Norway, the propensity to strictly apply eligibility criteria reportedly varies at local level. In Switzerland the sanction rate in 2008 varied from a minimum of 18% in Geneva up to 39% in Nidwalden – a range that is small enough to suggest that benchmarking efforts have achieved a degree of national uniformity in the application of eligibility criteria.

### *Activation regimes and their impact in Switzerland and Ireland*

The country reviews provide detailed information on how "interventions in the unemployment spell" were delivered in practice. This section gives some additional description of the interventions in Switzerland and Ireland, and briefly summarises findings from statistical evaluations of them.

#### *PES organisation and interventions in the unemployment spell in the two countries*

In Switzerland, unemployed people claiming UI must be "apt for placement"; undertake pro-active steps to shorten their unemployment spell; be ready to take up suitable work; regularly report their job-search actions; and participate in job-search assistance courses and employment programmes. Although similar conditions are stated by other countries, the review implies that the emphasis on them in Switzerland is significant. The PES is relatively well-staffed: in 2008 out of 2 829 staff there were 1 428 PES counsellors, with an average caseload of approximately 109 jobseekers, and PES resources fluctuate in line with unemployment.

Applicants must first register with the municipality: they are then referred for an initial PES interview within 15 days. At the initial registration interview, they must present adequate evidence of job-search actions taken since they left their job or were given notice that their employment was ending. Reintegration goals and strategies are discussed during the intake interview and results entered into the data file, and the counsellor formulates the personal job-search agreement (see above). During subsequent monthly face-to-face meetings, jobseekers report their actual job applications during the intervening period, listed on a spreadsheet, with attached documentation if requested. Referrals to programmes are at the discretion of the counsellor; they are not made at any specific unemployment duration, but become more likely the longer the unemployment spell. During participation in active measures, placement efforts by counsellors and personal job search are expected to continue (as mentioned above). When there are grounds for a benefit sanction, in some cantons counsellors take the decision directly and in others they submit the evidence to the jobseeker's UI fund to take the decision. Sanction rates are high (see above), with the main motives being insufficient personal effort (usually lack of sufficient job search), voluntary quit, and non-compliance with instructions (mainly job or programme refusal).

In Ireland in the 2000s, local Social Welfare offices determined that new UB claimants were available for and capable of employment, but claims could then be maintained by monthly in-person "signing-on". Subsequent job search was verified only at availability-review interviews that took place after 7 and 12, or 15, months of unemployment. In these interviews, job-seekers were required to cite various steps they had taken, including registration with the Training and Employment Authority – Employment Services (FÁS-ES), as evidence that they were "genuinely seeking work". The sanction rate in the mid-2000s was around 25 times lower than rates in Finland, Norway and Switzerland (see above). This reflects the low staff resources engaged in availability reviews and a lack of feedback from placement services. After registering with FÁS-ES, benefit recipients were not obliged to

have further contact with FÁS-ES or another strand of the employment service, except for participating once in the NEAP (Individual Action Plan) process. In the initial NEAP interview, the jobseeker might be referred to a vacant job, subsidised placement, a job club, training course or the Community Employment (CE) programme, but these were presented as options, not potential obligations with follow-up and enforcement, and claimants were not referred to the NEAP process a second time even in cases of repeat unemployment.

In contrast to its relative absence of activation, Ireland recorded relatively high levels of expenditure on ALMPs at 0.6%-0.7% of GDP in the mid-2000s compared with about 0.3% of GDP in Australia and 0.4% in the United Kingdom. One factor is that despite relatively low LFS unemployment (below 5% prior to 2008), Ireland still had a relatively high rate of long-term unemployment-benefit recipiency (see Table 3.1 above). At the same time, the Training and Employment Authority (FÁS) invested over half its resources in its training centres: tackling skills deficits had been the priority during the period of high employment growth and low unemployment, and until the onset of the recession, FÁS was considered effective at delivering apprenticeships, which were in retrospect overly concentrated in the construction sector. In the absence of participation requirements, client flows did not justify high levels of expenditure on the FÁS-ES strand of the service.

Another large component of ALMP expenditure was the Community Employment (CE) scheme, which created part-time jobs delivering services for local communities. In contrast with job-creation programmes in some other OECD countries, which involve mainly compulsory referral and participation, in Ireland the CE programme – which paid slightly more than passive benefit levels for the regular unemployed, but significantly more for lone-parent and disability benefit recipients, and offered work in the local community – attracted voluntary participation. In response to falling unemployment, CE participant numbers were reduced from 40 000 in 1998 to 20 000 in 2003, but this was still equivalent to over 1% of the labour force. CE spells tended to be lengthy even though, as a measure to discourage repeat participation, an individual's total participation in CE was capped at three years (except for workers aged over 55) (Pina, 2011). As in Finland (see above), relatively broad access to benefits and some ALMP options arguably mitigated the sense of national crisis associated with rising unemployment, but long-term unemployment then stayed at high levels through a period of economic upswing.

### *Insights from national evaluation studies in the two countries*

The results of several evaluations give greater insight into how the respective PES intervention regimes were implemented at the "front line" in Ireland and Switzerland and why they were more or less successful.

Switzerland is one of few countries that have high-quality evaluations of the performance of different placement strategies, rather than particular ALMPs. Egger and Lenz (2006a, 2006b) found that, after correction for exogenous factors, local employment office outcomes in terms of the average duration of unemployment spells varied by +/-10%, and in terms of the percentage of jobseekers who enter long-term unemployment varied by +/-20% (+/-5 percentage points) (figures refer to the top and bottom decile of offices, ranked by these outcome variables). The study identified several major success factors at the office level, including a rapid start of the re-integration process and strong guidance by competent caseworkers; contacts with employers by all job counsellors; and the recruitment of motivated and highly trained personnel with good staff/client ratios.

Frölich et al. (2007) and Behncke et al. (2007) used individual data for all new jobseekers registering in 2003, together with a standardised survey of all job counsellors and office managers, to investigate whether jobseekers registered with a specific type of employment office and advised by case managers with specific attributes had higher or lower chances of finding a job. Employment rates over the following 24 to 36 months were positively correlated with various factors, including:

- Good staff relationships with employers, in particular knowledge of employer needs and careful use of direct referrals, rapid reaction to vacancies, careful pre-selection of candidates, and co-operation with private placement agencies.
- "Tough" rather than more co-operative attitudes of caseworkers to their clients.
- The use of work-first strategies giving priority to job placement over training measures.
- The organisational separation of counselling and sanctions (in the sense that the counsellor sends evidence to the UI fund for a decision).

Behncke et al. (2010) similarly report that non-cooperative caseworkers – who view controls and sanctions and assignments to jobs and ALMPs to apply pressure as important instruments for placement – achieve employment rates about 2 percentage points higher over the follow-up period. Behncke et al. (2008) also found a positive employment effect of about 4 percentage points when counsellors and jobseekers are identical in several (more than two) characteristics, including age, gender, education and mother tongue. Similarities seem to make it easier to agree on common goals and motivate the jobseeker to engage in effective job search. Lechner (2011) highlights that performance rating gives counsellors (non-monetary) incentives to perform, and that they have considerable leeway to operate autonomously within their organisation and powers in relation to unemployed clients in terms of withdrawing benefits.

Behncke et al. (2010) report that increased employment is not obtained at the cost of reduced stability of the subsequent jobs. However Arni et al. (2012), using time-series data with information about when jobseekers had received a warning letter and whether this was followed by a benefit sanction, find that although warnings and sanctions increase exits to employment they also reduce the duration of the first job. Although rapid placement is given considerable weight in Switzerland when measuring local office performance, repeat unemployment is also taken into account (with a negative weight) (see Section 5) so as to give some weight to the job-stability objective. Activation strategies should not necessarily seek to achieve take-up of the first available job, but ideally should maintain steady pressure and provide ongoing assistance, to ensure that no opportunities for a reasonably good job match are missed.

There has been no similar investigation of the activities and strategies of front-line counsellors and placement services in Ireland but there have been several evaluations of the NEAP, the main mandatory activation measure throughout the 2000s. Early evaluations concluded that, by and large, the NEAP procedure had been an effective labour market policy tool and was successful in achieving an additional movement off the Live Register (which measures unemployment benefit claims) (O'Connell, 2002; Indecon, 2005). The impact probably arose because in 2000 the programme was relatively new and intensive (NEAP clients had an average of five "contacts with their case officer" per initial interview), and more often resulted or was expected to result in referral to an ALMP. This was feasible partly because the NEAP target group was at first (in terms of age and duration of

unemployment) relatively restricted. In addition, some activation measures were introduced between 1996 and 2000, the welfare department introduced a "Customer Activation" strategy and benefit sanctions were somewhat more frequent.

In the early 2000s the NEAP target group was expanded, and from late 2006, the NEAP process was applied to unemployed individuals after three months on the "Live Register". A subsequent evaluation (McGuinness et al., 2011) followed outcomes for people who initiated a UB claim in late 2006, and found that participation in the NEAP referral and interview process was associated with lower chances of entering employment, as compared with a control group of those who were not referred. The authors suggest that the negative effect may be the result of NEAP clients learning through the process that they were unlikely to face monitoring or sanctions in the future: this seems plausible given that, by 2006, clients would often have known that they would not need to participate a second time, and benefit sanctions for not genuinely seeking work had fallen to less than a third of their 2001 level.

The Irish Government has since embarked on a radical reform of its institutional arrangements for benefit administration and employment services, aiming to implement a new activation regime based on best international practice (see Box 3.6).

## 5. Institutions and the organisation and delivery of employment services

It is relatively easy to define interventions in the unemployment spell and benefit eligibility criteria or sanction provisions at the national level, but it is more difficult to achieve effective implementation at ground level. For this reason, activation strategies, in the sense of reforms that have achieved good results historically and those which might achieve a good result in the future, focus particularly on institutions. The country reviews document the structure of the PES – according to the broad definition of it, which includes all organisations responsible for the administration of active benefits, the placement function, and referral to active labour market programmes – and the institutional incentives resulting from financing arrangements, the internal management of each organisation and the incentives facing local office managers or front-line counsellors, and the barriers to co-operation between institutions. One objective of reforms has been to reduce institutional fragmentation and draw together delivery agencies so that they co-operate and work to common objectives. Other themes have been performance management within the public sector, and competitive outsourcing of the placement and counselling functions.

The remainder of this section first lists the most important institutional reforms and cases where new services were introduced, then outlines some general issues related to the institutional context. A third subsection considers in more detail some of the ways in which individual countries tried to improve co-ordination and co-operation between institutions and services, including relationships between central and local government. The fourth and fifth subsections then assess developments in PES performance management and how the systems introduced in Switzerland and Australia have helped drive increased performance in placing the unemployed. A final subsection considers the contracting-out of employment services and the quasi-market arrangements through which Australia and the United Kingdom now deliver employment services.

### Box 3.6. **Pathways to Work and Intreo – the new Irish activation service**

In 2011, the reformed Department of Social Protection (DSP) was given responsibility for developing an integrated one-stop system to administer working-age benefits and employment services. This involved the absorption of some 1 700 FÁS-ES and Community Welfare Services staff into DSP and the development of systems and procedures to deliver the new service.

In February 2012, the Irish Government launched its wider Pathways to Work strategy that combines reforms to the benefit system, employment programmes and services for jobseekers and employers (Government of Ireland, 2012). The strategy aims to prevent high unemployment from becoming entrenched by transforming the comparatively passive system described in the OECD country review. The new approach is primarily focused on those claiming benefits and the target is to get 75 000 people currently long-term unemployed back into the workforce and to reduce the average time spent on the Live Register from 21 months to less than 12 months by the end of 2015.

The new service was officially launched as Intreo in four local offices in October 2012, with a full network of 70 offices to be established by the end of 2014. Key elements of the service delivery approach include the development of a personal progression plan and a "social contract" whereby clients commit to engage with the Department's employment services. In addition to job search and availability for work, clients will be required to attend meetings and participate in employment programmes. Since April 2011, benefit rates can be cut by almost a quarter for refusal to engage in job search or in activation programmes (Pina, 2011). These reforms are also being launched in a context of recent reductions in UI duration and benefit levels.

On entry to the system. unemployed people are asked to complete a profiling questionnaire which is used to assign a "Probability of Exit" (PEX) rating. Clients with a high PEX rating (i.e. high probability of finding employment) are encouraged and helped to search for work. Clients with a mid-point rating will be invited to participate in Group Advisory Sessions which provide guidance regarding programmes to improve their employment prospects. Clients with a low PEX rating, and those still on the register after 12 months, will receive intensive one-to-one support from an experienced advisor and may be directed to particular work experience and/or training programmes. It was intended that over 90% of local employment offices will be operating the PEX Profiling System by the end of 2012. As a target for 2012, new clients signing onto the Live Register should, as a minimum, benefit from a group engagement after three months, and a referral to job placement/training after a maximum of 18 months.

Whilst the new approach reflects aspects of international best practice, Intreo has not incorporated locally delivered LES services as recommended in the OECD review, and the former FÁS training centres now come under a separate public institution, SOLAS, with a risk of continuing low participation by disadvantaged clients, since Intreo is not funded to directly purchase suitable training for them. There is also concern that due to resource constraints, the roll-out of Intreo will be slow, and that profiling and group activities are being targeted at the newly unemployed rather than long-term claimants. Early results are encouraging, however, and in pilot offices the new case management approach reduced the time taken for clients to meet with employment counsellors from three months to about two weeks and attendance at activation meetings and group engagements was up from about 60% to over 95% (Irish Government News Service, 2012). The challenge will be to maintain the focus and ensure the delivery of the new intervention regime as it is rolled-out, and to translate increased contact between jobseekers and the employment services into job outcomes.

*Source:* As cited, and Sexton, J. (2012), *EEO Review: Long-term Unemployment, 2012: Ireland*, European Employment Observatory, available at *www.eu-employment-observatory.net/resources/reviews/Ireland-LTU-July2012.pdf*.

### *Organisational reforms*

Governments could at any time implement specific changes to work incentives, the design of interventions in the unemployment spell, or the range of labour market programmes available, but the larger changes were often coupled with organisational reform. Among the largest organisational reforms were:

- *Australia:* Job Network (competitive outsourcing of the placement function), 1998; the Active Participation Model, 2003; Welfare to Work, 2006; Job Services Australia (integrating the management of employment services and Work for the Dole), 2009; and the reorganisation of disability employment services, which took place in multiple and overlapping stages, but particularly from 2005 to 2010.
- *Finland:* creation of 15 regional Employment and Economic Development (T&E) Centres with the responsibility for managing 180 unemployment offices, 1997 (subsequently absorbed into Economic Development, Transport and Environment, ELY, Centres in 2010); mergers leaving 74 independent local offices (called T&E Offices or TE-Offices) managing approximately 200 service units, 2001-09; creation of the Labour Force Service Centres (LAFOS), jointly managed by municipalities, the national employment service and the social insurance institution (KELA), 2004-07; transfer of responsibility for decisions about unemployment benefit entitlement from local Labour Committees to the T&E (now ELY) Centres, 2009.[19]
- *Ireland:* funding and management reforms partly co-ordinating the Local Employment Service (LES) with FÁS-ES (approximately) 2002-06; the abolition of FÁS with the transfer of employment services to the Department of Social Protection and training services to SOLAS, a new organisation under the Department of Education and Skills, 2011-13.
- *Norway:* creation of NAV, which partially merges services for UI, social assistance and sickness/disability beneficiaries, 2006-08.
- *Switzerland:* UI legislation and the creation of a national network of employment service offices (with cantons responsible for operational management), 1996; some increase in cantonal autonomy (the national requirements for jobseekers to have two interviews per month and for each canton to create a minimum number of ALMP places were dropped), 2000 and 2001.
- *United Kingdom:* new unemployment benefit (Jobseeker's Allowance) legislation, 1996; creation of Jobcentre Plus (see Box 3.7), 2001 to 2006; transfer of some lone parents to Jobseeker's Allowance, and the transfer of people with reduced work capacity in relevant cases to a new Employment and Support Allowance – Work-related Activity Group, 2008 to 2014; systematic referral of long-term unemployed jobseekers to private-sector employment service providers, from 2009 (Flexible New Deal) to 2011 (Work Programme).

During the 2000s, these organisational reforms arguably had a broad impact in Australia, Norway and the United Kingdom. The structural reforms in Finland have also tended to centralise the management of local employment offices at regional level, where it is co-ordinated with broader economic development strategies. The LES reform in Ireland and the LAFOS reform in Finland affected only a limited proportion of clients and employment service staff, and in Japan and Switzerland, no major organisational reforms took place. However institutional set-ups inherited from earlier years, in some cases decades earlier, continued to structure national labour market policy.

### Box 3.7. **Work-focused Institutional integration in the United Kingdom – Jobcentre Plus**

Before 2002, employment services and benefits (except for unemployment benefits) for working-age people in Britain were delivered through two separate agencies. In April 2002, these agencies were merged to form Jobcentre Plus (JCP). This new agency provided a single point of delivery for cash benefits and activation services for about 4.5 million working-age claimants.

The agency inherited a network of 1 500 offices and 90 000 staff. In the new service delivery model, benefit claims were administered through a network of "contact" and "benefit delivery" centres, with benefits paid directly into each recipient's bank account. Employment services and the monitoring and enforcement of activity requirements were handled through some 800 integrated front line Jobcentres. Full-time equivalent staff numbers fell to about 69 000 by 2008 when the reorganisation was complete.

The objective was to create an employment-first front-line service. New benefit claims are made on-line or via telephone, with free phones being available in Jobcentres. Nearly all claimants are required to attend a Work-focused Interview with a Personal Adviser, usually within three to four working days. The task of the Personal Adviser is to assess employability, identify barriers and provide employment assistance. This may include matching and submitting the individual to vacancies. Claimants are then subject to activity requirements related to their benefit, with unemployed claimants subject to full conditionality.

The direct cost of JCP's modernisation was GBP 1.9 billion, some GBP 300 million below the original budget. A detailed evaluation of impacts, based on tracking outcomes as the JCP model was rolled out in different areas of the country over a four-year period, supplemented by macroeconomic modelling, found that the reorganised delivery agency had helped to reduce the number of people on all the main working-age benefits and increase the effective labour supply. The net contribution to GDP was estimated in various ways and in all cases the JCP investment appeared to have been more than self-financing, with one estimate showing a net increase of 0.1% of GDP worth a cumulative GBP 5.5 billion by 2015.

In 2011, JCP's Executive Agency status was revoked. A staff total for the regional and national offices and the 31 contact centres and 79 benefit processing centres is no longer cited; however, in the recession, front-line services were given priority and there were in 2011/12 nearly 37 000 staff in local jobcentres, an increase of more than 50% on the level in early 2008.

*Source:* Coleman, N., E. Kennedy and H. Carpenter (2005), "Jobcentre Plus Service Delivery Wave Two: Findings from Quantitative Research", *Department of Work and Pensions Research Report*, No. 284; Work and Pensions Committee (2006), "The Efficiency Savings Programme in Jobcentre Plus", Vol. 1, Second Report of Session 2005-06, House of Commons, available at *www.publications.parliament.uk/pa/cm200506/cmselect/cmworpen/834/834i.pdf*; NAO – National Audit Office (2013), *Department of Work and Pensions: Responding to Change in Jobcentres*, available at *www.nao.org.uk/publications/1213/jobcentres.aspx*; Riley, R., H. Bewley, S. Kirby, A. Rincon-Aznar and A. George (2011), "The Introduction of Jobcentre Plus: An Evaluation of Labour Market Impacts", *DWP Research Report*, No. 781, National Institute of Economic and Social Research for the Department for Work and Pensions, London; and Daily Hansard Written Answers, 26 November 2008 and 28 January 2009.

Some degree of organisational change also arises when an existing PES organisation introduces new types of service or sets up new co-ordination arrangements with related organisations. Some examples are:

- In Finland, the introduction of Change Security, a programme for workers who are dismissed after at least three years of service, providing a temporary increase in UI benefits together with more-intensive employment services.
- In Ireland, the joint development by FÁS-ES and Welfare Offices of a High Support Process from 2003, and local and regional structures for co-operation in the management of the NEAP, from 2004.
- In Japan, the introduction in 2003 and 2007 of several individual action plan procedures for particular groups (annual participant numbers, approximately 300 000, total about 4% of the flow of new jobseeker registrations); the creation of 12 Mothers Hello Work Centres, 12 Banks of Human Resources and various other specialised delivery points, 2006 to 2009; and a joint Employment Support Programme for welfare recipients, to which some employment service counsellors are allocated, from the early 2000s.

Examples of new co-ordination arrangements are also given in the section below on improving co-ordination and co-operation between institutions and services. The relatively specialised innovations are often significant, but would not have a very visible impact on the main labour market aggregates, comparable to what can be achieved through broader reforms.

### *The broad institutional framework*

In each of the review countries, labour ministries played a central role in setting activation policies but divisions of responsibilities for benefits and services were not straightforward and other ministries, such as those responsible for education or training, social insurance, social welfare and health services, also had significant roles. These differences were complicated further where they overlapped with the division of responsibility between levels of government.

In Norway, local government, and in Switzerland, local and regional governments, are wholly responsible for financing social assistance benefits, and they determine benefit levels and eligibility criteria. In Finland and Japan, assistance benefit levels are determined nationally. In Finland, local government is mainly responsible for financing and management of social assistance benefits but these rarely function as the main form of income support for unemployed people, since those who are regarded as fit for work usually are required to register with the PES and qualify for the national unemployment assistance benefit (LMS). In Japan, social assistance is financed and managed jointly by local and national governments, but it functions only to a limited extent as an unemployment benefit. In Australia, Ireland, and the United Kingdom, regional and local governments are not responsible for unemployment assistance or other minimum income assistance benefits. However, regional governments in Australia, and since the late 1990s the Scottish and Welsh governments within their areas of the United Kingdom, are primarily responsible for apprenticeship, skills and training policies.

Apart from the local and regional levels of government, responsibility for the delivery of benefits and employment services for working-age people was also allocated in varying degrees to placement, social insurance and training delivery organisations with quasi-independent status. Trade unions, employers and community or interest group organisations exercise have varying levels of influence and control.

Complex institutional and delivery landscapes create scope for diverging objectives and interests and misaligned incentives (Immervoll, 2009). Different levels of multi-tiered policy systems may have strong incentives to shift costs to other levels and to resist reform. Social insurance funds that receive central government funding may have incentives to increase rather than reduce caseloads, and may resist policy change. In several Nordic countries, including Finland, many of the independent insurance funds are associated with particular trade unions, and fund membership indirectly promotes union membership (Clasen and Viebrock, 2008). The national PES may focus on recipients of UI benefits, and seek to shift hard-to-place UI claimants onto other benefits and invest little in hard-to-place social assistance claimants. Municipalities which finance social assistance expenditures may act to shift clients onto benefits financed by insurance funds or general taxation. Municipalities and community-based organisations may also, as in Ireland and Finland, come to rely on central government subsidies that fund large-scale and long-lasting temporary job programmes to deliver certain local services, and place less emphasis on the objective of participant employability in the open labour market.

The poor alignment of incentives can limit the impact of measures targeted on the unemployed, or even perversely increase benefit dependency, as arguably happened in several of the review countries where strict activation regimes for the unemployed resulted in transfers to disability benefits with few work-related requirements and low rates of return to work.

### *Improving co-ordination and co-operation between institutions and services*

*The OECD Jobs Study* (OECD, 1994) recommended integration of the three main functions of the broadly defined PES: job broking, benefit administration and referral to active measures. In principle, such integration helps to ensure that the placement objective of a rapid return to work is supported by benefit sanctions in cases of non-co-operation; that the benefit administration's objective of enforcing eligibility criteria is implemented through job-search monitoring and referrals to job vacancies and ALMPs by the placement service; and that training services and job-creation projects accept referrals of clients who are disadvantaged, poorly motivated or otherwise at risk of long-term unemployment, which may not be the case when they are autonomous bodies that can select their own participants.

In several countries, service delivery reforms have been designed to facilitate access to services and co-ordination between them through "One Stop", "single counter" or "single gateway" access to related employment, benefit and other social services. It is convenient for clients to be able to access services through a single point, and this also helps to reduce duplication of intake processes and facilitate information-sharing, target interventions to suit individual needs and local circumstances, and co-ordinate service delivery. However, the co-location of the offices of different organisations at local level with a common reception desk is not the same as integration at the management level. Conversely, "integrated" PES organisations often have a regional network of large benefit offices distinct from a denser network of smaller placement-service offices, as in Britain following the introduction of Jobcentre Plus (see Box 3.7).

Full-scale service integration is more easily secured in a unitary and highly centralised country like the United Kingdom. In most other countries, such an option is not feasible constitutionally or sought after politically. Therefore, policy makers have devised various ways of requiring or encouraging different agencies and levels of government to co-ordinate and sometimes co-locate service delivery.

In Japan, Switzerland, Australia and (until recently) Ireland, reforms that increased inter-institutional collaboration concerned only specific groups of jobseekers. A common theme was co-operation between the PES, benefit agencies and other organisations in delivering services for the most disadvantaged clients and/or local areas:

- In Japan, legislation in 2000 allowed local government to implement other employment measures and provide regular job-matching services, and since then, prefectures and municipalities have become key players, managing Job Cafés (small employment service offices for young jobseekers), employment and work-preparation centres for single mothers, and job-creation projects.[20] Since the mid-2000s, as part of the Employment Support Programme which is administered jointly with welfare offices, Hello Work has introduced some 300 "navigators". They provide advice and referrals and develop action plans with recipients of Public Assistance or Child-rearing Allowance. The co-ordination is relatively small-scale, but could become more significant if more unemployed people qualify for welfare benefits.
- In Switzerland, models of co-operation between local employment offices, social assistance offices and disability insurance were developed in most cantons from the early 2000s. Through the Medico-Labour-Market Assessments with Case Management (MAMAC) project, public bodies in 16 cantons committed themselves to co-operate particularly in the case of individuals with multiple barriers to employment. The objective was to better combine benefit payments, placement and reintegration activities and to have a wider tool-kit of possible measures delivered through a single case manager. An evaluation found that MAMAC intensified co-operation between public agencies, increased client satisfaction and promoted earlier activation (although there was room for further improvement), but it found no positive effects on employment rates, and considered the procedure to be too complicated to be extended to cover a larger target group (Egger et al., 2010). The MAMAC project finished in 2010, but since 2011 a modified principle of institutional co-operation in this area is applied to all cantons (AOST, 2011).
- In Australia in 2010, Centrelink, the national benefits agency, implemented Local Connections to Work (LCTW) in five disadvantaged areas. Under this initiative, participating organisations called Community Partners co-locate within the Centrelink office to deliver their services on a scheduled basis to highly disadvantaged clients. The organisations include employment services providers,[21] as well as health, housing, training and community welfare organisations. They co-locate without additional funding, but their presence in the Centrelink office gives them better access to potential clients and an opportunity to strengthen connections with other local agencies. Clients participating in LCTW had an average of two to three joint interviews and the trials were considered a success. From 2012, the approach has been extended to cover a total of 24 disadvantaged areas with a further 44 locations testing the delivery of "case co-ordination" interviews to disadvantaged individuals outside LCTW locations.
- In Ireland, area-based partnerships considerably widened the range of organisations involved in delivering employment services.[22] The most important is the Local Employment Service (LES), originally established in the mid 1990s. The LES targets services at the long-term unemployed and other disadvantaged groups. LES personnel operate in 25 areas from a large number of community-based "Contact Points". They act as a gateway, providing information on and referrals to training, education and

employment options, and they also provide a more-intensive Mediation Service. The LES received funding from the partnership bodies in each area which in turn received funding from FÁS-ES tied to contracts with quantitative performance targets, but against this complex organisational background they remained relatively separate from FÁS-ES.

These national experiences represent different ways in which policy makers have sought to give greater local coherence to the delivery of employment services and programmes. However, in Switzerland and Australia the initiatives mentioned above are small in scale. In Ireland, the LES became a significant part of the PES, but only loosely co-ordinated with the main placement services and with no direct role in enforcing eligibility criteria for unemployment benefits, such as job search or clients' use of programmes and additional services to which they are referred.

### *Institutional co-ordination and co-operation in Norway and Finland*

The development of single gateways that give co-located access to benefits and employment services is a central feature of recent reforms in Norway and Finland. In Norway, the reform involved the integration of the PES and social insurance agency and co-location with municipalities. In Finland the reform involved a change in benefit funding and the setting-up of new offices co-locating PES and municipal services for long-term LMS recipients.

In Norway, between 2006 and 2009 the PES and the National Insurance Administration were merged and co-located with municipal social services, which were still legally separate, to create NAV, the combined Labour and Welfare Service. The main objectives for the new arrangements were to have a single contact point for clients which deals with all of the needs of each individual and ensures that the office is experienced by service users as a single unit.

The reorganisation included some 14 000 staff under government control and 4 000 municipal employees. The front-line offices had 6 000-7 000 staff when the network was finalised. In 2008, services were provided to an average stock of 150 000 unemployment benefit, social assistance and vocational rehabilitation recipients and about 100 000 jobseekers who are not benefit recipients (e.g. people registered for a potential change of job). Annual client inflows from the three benefit-recipient categories totalled about 600 000. Both in stock or flow terms, staff/client ratios seemed adequate in international comparison.

Local NAV offices were established through agreements between NAV at regional or national level with the municipalities. These agreements related to the design and operation of the office and the interaction between the two organisations and can further determine that, apart from cash social assistance, other municipal social services may be provided. This has led to variation in the character of the agreements and in the services provided in local NAV offices. With two "different owners" (municipalities and central government), local level NAV offices have no single chain of command, staff groups are on different salary scales, and at the time of the 2009 review IT systems were not integrated to create a joint client database. This made it difficult to build a common service culture and tensions were reported between the approaches of NAV counsellors and those of social workers.

NAV offices typically have two departments: reception and long-term follow-up. The former department offers self-service and limited guidance to jobseekers and to employers with jobs to offer. The latter gives follow-up assistance to the unemployed, to people on long-term sick leave and with disabilities, and to those on vocational rehabilitation benefits. Preliminary evaluations of the merger process showed that it had increased

co-operation across the previous agency borders, but NAV offices still differed in how they defined the integrated approach. Caseworkers in some offices were handling the whole spectrum of clients and problems. The provision of different services under one roof had not automatically led to a better co-ordination of processes and institutional objectives. More recent evaluations point to wide variation in the implementation of the employability assessment, which is central to the management of the new Work Assessment Allowance (Proba samfunnsanalyse, 2012).

In Finland, from 2004 most Employment Offices created an area (called the Job-Seeking Centre) with self-service facilities and e-services for work-ready jobseekers, including those still in employment. Also during the 2000s several types of individual action plan were introduced. The first individual action plan procedure, introduced in the 1990s, attempted to introduce systematic job-search monitoring, but this was not successful, and it is not clear that the more recent plans have had a large impact on the pattern of interventions in the unemployment spell.

However, employment services for long-term LMS recipients were significantly changed. Following a period of experimentation, 39 Labour Force Service Centres (LAFOS) were introduced for this client group between 2004 and 2007. They are based on local, rather informal, co-operation contracts between the partners, and act under management jointly defined by them. The "contracts" agree on the following elements (EJML, 2011):

- Clients and operating model.
- Management arrangements and supervision of operations.
- Personnel to be allocated to the services.
- Budget and monitoring of expenditure.
- Services to be outsourced or purchased from external service providers.

Organisational models vary, with the lead managerial position being taken either by the Employment Office or a municipality, or sometimes shared between them in a rotating system. The core of LAFOS personnel are comprised of counsellors from the Employment Offices and municipal social workers, with a limited number of personnel contributed by KELA, the social insurance agency. In addition, health professionals, such as nurses, doctors, and psychologists, also may be on site, or part of multi-professional teams. The size of the LAFOS centres varies with the largest offices offering a wide range of professional services. Participation can last for two to three years, after which clients without another outcome usually return to the PES or municipality. In 2010, of the 9 149 clients completing the service, about 10% were in open employment and nearly 12% were participating in ALMPs (EJML, 2011).

The introduction of LAFOS was co-ordinated with a 2006 reform which made municipalities jointly responsible for financing LMS benefits for the potential LAFOS target group, while also funding them to organise active measures for this target group (see Box 3.8). The Netherlands introduced a similar but more radical reform in 2004.[23] Such reforms, by aligning funding responsibility with management responsibility, improve institutional incentives. However, the 2007 LAFOS caseload of 23 500 represented only about half of the number of LMS recipients subject to joint financing. A LAFOS centre was not always geographically accessible (the centres are established only in densely populated areas, although one centre often serves several municipalities), and clients are referred to the LAFOS centre by the Employment Office or the municipality based on a needs assessment.

### Box 3.8. **Finland's reform of benefit financing**

In Finland in 2006 the financing arrangements between central and local government were changed to increase the incentive for municipalities to organise activation measures. Municipalities now are responsible for financing half the cost of LMS payments after 500 days (100 weeks), or after 180 days if an insurance benefit was paid for 500 days prior to the LMS spell. In 2007, central government still paid more than 75% of the total costs for LMS, since only about 50 000 LMS recipients (around a half of all LMS recipients and a quarter of all unemployment benefit recipients) are subject to joint financing.

Municipalities do not have to pay the costs if recipients are participating in Rehabilitative Work, which is regarded as an active measure, and they were also paid EUR 10.09 per participant per day in 2007 to organise such activities. This change led to a large increase in the supply of such places.

Although the financing arrangement created a new cost for the municipalities, they gain financially if they reduce the size of the target group below its 2003 level. Another factor is that the social assistance payments to LMS recipients, previously financed by the municipalities, also were divided between the state and municipalities. If the net result is nevertheless negative, municipality-specific compensation is paid because the starting point of the reform was that the municipalities must not lose financially.

*Source:* Duell, N., D. Grubb and S. Singh (2009), "Activation Policies in Finland", *OECD Social Employment and Migration Working Papers*, No. 98, OECD Publishing, Paris, *http://dx.doi.org/10.1787/220568650308*.

The combined impact of the financing and LAFOS reforms in Finland may have contributed to subsequent declines in unemployment: the numbers receiving LMS, in particular, fell quite sharply from 2004 to 2008, and despite some recessionary increase remain considerably lower than in 2004.

### *Performance management of public employment services*

Each review country uses a number of quantitative performance indicators, mostly based on PES administrative operations. In most cases the relevant ministry sets targets for some of these indicators, which often are nominally linked to budgets and programme allocations. The administrative indicators often include both the immediate results of PES or programme activity, such as the number of action plans created or courses completed, and administrative records of outcomes, such as registered vacancies filled, and "off-benefit" and job-placement rates differentiated by client groups.

Central authorities use performance indicators to hold the PES and other delivery agencies to account for their use of the resources allocated. Transparency is important where responsibilities for funding unemployment benefits and active measures and for managing employment services are fragmented, but indicators are also needed by large integrated organisations to allow them to track their operations at lower levels. It is a challenge to ensure that targets and indicators are well designed, and do not induce perverse incentives. This requires a significant investment of organisational resources in management information and reporting systems, although modern IT capacities facilitate the collection and processing of data, incurring lower costs and bureaucracy than that associated with traditional highly regulated forms of public administration (Mosley, 2011). At their best, well-designed reporting systems link performance indicators in a way that

shows the relationship between inputs and final outcomes, giving policy makers and senior managers greater insight into the relative performance of different parts of the organisation and into what appears to be working (Nunn, 2011).

In the review countries except for Ireland, national targets were set for some national PES outcome indicators, but only according to ad hoc criteria, recognising that outcomes would also be affected by unpredictable factors such as the economic cycle. In Finland, Japan, Norway and the United Kingdom, the national targets were also used as the basis for setting outcome targets for PES regional and local offices. In Finland and Japan, these offices could negotiate targets that take regional/local circumstances into account. In Norway, top-down target-setting was restricted to the central government (UI and disability-related) line of financing for NAV, because municipalities are free to set objectives for social services. Local offices might also allocate their placement-related objectives across individual counselling staff, but the extent of this practice was not well documented by the reviews.

Management-by-objectives systems are often fairly complex in the sense of defining multiple outcome indicators, but they are often not able to measure local office performance with much precision, because the outcome and control variables are not measured with sufficient accuracy at the detailed level of local offices, benchmarks are calculated in a relatively crude way and specific targets may be influenced by ad hoc negotiations with each local entity.[24] Because outcomes relative to benchmarks are only approximate measures of impact, and due to the negotiated character of the targets, the use of the indicators to penalise poor performance would not be appropriate. The authorities use them mainly to discuss apparent shortfalls in performance, and perhaps as an input to staff assessments, but not as the basis for published performance ratings.

By contrast, Australia and Switzerland record a relatively rich broad set of jobseeker characteristics in their PES systems, and use this, as well as separate survey-based information about local labour markets, to estimate performance on a regression-adjusted basis. Comparative ratings of recent local-office performance are published. Unlike the "management-by-objectives" procedure, this approach does not (since the information used to estimate benchmarks is not available in advance) generate national or local-level targets for the year ahead – although local entities know roughly what level of performance will be needed to achieve a good rating.

In Switzerland, the introduction of federal funding for the delivery of PES services through cantons in 1996 was followed by detailed research into the relative effectiveness of local employment offices. In 2000 a system of rating local performance in terms of off-benefit outcomes was introduced, with plans to link cantonal PES funding to measured performance. After criticism from the cantons, the link with funding was terminated but performance rating continued. There are four regularly monitored primary indicators of PES performance which are assigned different weights:

- *Speed of reintegration of the unemployed into the labour market,* as measured by the average duration of unemployment benefit entitlement per unemployed (weighted 50%).
- *Prevention of long-term unemployment,* as measured by the share of those remaining unemployed among those who were registered as unemployment benefit recipients 13 months before (weighted 20%).
- *Prevention of benefit exhaustion,* as measured by the share of unemployed no longer entitled to federal unemployment benefits in the total number of unemployed (weighted 20%).

- *Prevention of repeated registration for benefit,* as measured by the share of previous unemployed who have de-registered but re-apply for unemployment benefits within four months (weighted 10%).

The benefit-payment system provides data on these indicators and a range of variables is used in an econometric model to adjust the raw results. Although the Swiss system no longer has the immediacy of financial sanctions for poor performance, it gives cantons performance data for the management of their own offices. It also exerts influence through the "naming and shaming" and peer pressure. Should cantons underperform repeatedly, an in-depth performance evaluation can be undertaken by the ministry with a view to improving performance. A similar system has been introduced to highlight variation and to improve performance in the cantonal disability offices. The national supervisory body has strengthened competition between cantons through the introduction of a better reporting and monitoring system, with annual rather than tri-annual reporting. This is complemented by assessment and employment-focused target agreements with each cantonal office, similar to those used in the PES system.

In Australia, Star Ratings are used to measure the comparative job-entry performance at over 2 200 sites: many of the sites are small with only a few, perhaps part-time, employees. The ratings were first published in 1999. The methodology has been improved through research and evaluation and adjustments made to reflect changes in successive employment service contracts. The ratings are calculated mainly on the basis of job placements and outcomes of continuous employment for 13 and 26 weeks employment, which are variables used for payment by results, with smaller weights on the time taken to move off benefits for easier-to-place jobseekers and the time taken to achieve a 13-week employment outcome for those harder to place. The regression residuals for each JSA site represent performance above or below average. Separate regressions are run using different performance indicators as the dependent variable, and the results are averaged. Sites are given an overall rating of five stars for performance 40% or more above average, and one star for performance 50% or more below average. This means that five-star sites have achieved approximately three times as many placement and employment outcomes as one-star sites, taking into account differences in client characteristics and local labour market conditions. Providers are given weekly reports on the raw performance of the sites that they manage, and the Star Ratings are calculated and published every three months.

The Star Ratings play an important role when the Department awards three-year contracts. In 2000, when the second Employment Services Contract started, the providers retained had a placement performance nearly 25% above the average across providers who operated the first contract. On several occasions, providers with average and above-average performance – on average across the sites they manage at the level of one of the 116 Employment Service Areas in Australia – have had their contracts (for that Employment Service Area) automatically renewed. The ratings also probably identify good and bad performance, at the level of the 100 or more individual sites typically run by large provider organisations, more accurately at lower cost and with greater authority than provider management could do itself. This level of detail gives the Department and the large providers insight into performance that would be missed if performance was assessed solely at provider level. It encourages providers to act rapidly to fix poor performance at particular sites they manage,[25] and the Department's contract managers also intervene where necessary.[26]

There are limitations in coverage and accuracy of the Swiss and Australian performance ratings. The Swiss system uses exits from UI, rather than proven entry to a job, as the outcome measure. Outcomes for people without a UI entitlement are not taken into account. Therefore, other things being equal, offices which focus on reducing the number of UI recipients will be rated more highly than those which prioritise social assistance beneficiaries. In Australia, providers are required to obtain statements from their client's employer as the basis for claiming a three-month or six-month Outcome Payments, but the stability of employment outcomes beyond the six-month point is not taken into account. However, it can be argued that the outcome measures used are adequate approximations for most purposes, or are at least as good as those available to the PES in most other countries.

The accuracy of performance ratings is also strongly dependent on the quality of the explanatory variables used in regressions. If significant factors that are beyond the influence of the provider are not taken into account, or if the available data are inaccurate, performance ratings will not capture the *net* impact of employment services on the chosen outcome measure. To the extent that local employment services influence the local unemployment rate, regressions that use the latter as an explanatory variable understate the impact of good employment service performance. The issues are complex, and doubts expressed by employment service providers about the accuracy of their ratings can be partly justified. The Australian country review notes that the Star Rating regressions over-predict expected outcomes for providers who specialise in certain disadvantaged client groups, and suggests that research should investigate possible technical reasons for this. But again it can be argued that regression-based estimates are far better as measures of comparative performance than comparisons of outcomes against relatively crude benchmarks or negotiated targets, the methods used by the PES in most other countries.

The two comparative performance-rating systems currently use, as outcome measures, only data on individual benefit and/or employment outcomes, variables that involve payments and thus are relatively robustly measured. Management-by-objectives systems are able to use, as performance indicators, other variables that are more qualitative in nature, or less-robustly measured or unavailable for some offices due to sample size or other local issues. These include the speed of claims processing and service delivery, customer complaints, and survey data for customer satisfaction. Australia devotes significant resources to an additional "quality" indicator system that looks at a range of further qualitative and quantitative data, but the findings are used for internal management and to give providers feedback on an individual basis, rather than for publication.

Notwithstanding their limitations, the disaggregated and competitive character of the Swiss and Australian performance rating systems plausibly has improved aggregate performance. The underlying principles merit consideration in other countries, recognising that true performance ratings, based on a few relatively "hard" outcome indicators with full regression adjustments, need to coexist with a more flexible or tentative use of a range of other indicators of performance.

### *Contracting out the delivery of employment services and programmes*

There are a number of reasons why ministries, the PES or other public agencies contract out labour market programmes to external providers.

### *Training and job-creation programmes*

The longer-term labour market programmes which consist mainly of income support or subsidies, i.e. start-up incentives where the main content is the payment of unemployment benefit without job-search requirements during the start-up period, and recruitment incentives which are most often paid to the employer, are often managed directly by the PES or the national social security administration. However, vocational training, supported employment for people with disabilities and job-creation measures are not so often implemented directly by the labour ministry, because they tend to involve distinct skills, infrastructure and local-level management, and these are often located within separate state or regional government training organisations, for-profit training service providers, community organisations, social enterprises, and for-profit employers.

Among the review countries, Ireland has state-owned centres which implement labour market training and apprenticeships for some industrial sectors, but even here the PES contracts with private providers and with public education institutions (managed by a separate ministry or by local governments) for vocational training for other industrial sectors.

Job-creation measures are usually implemented with a range of organisations acting as the participant's direct employer, which can include government, para-public agencies such as hospitals, and community-based or national non-profit organisations. The main sponsors of projects for Ireland's large Community Employment scheme and Australia's Work for the Dole programme up to 2009 were in these areas.[27] In Finland in 2000, state employers still played some role, but almost half of the subsidised job entries were into municipal employment, while 20% were into work with a community or private employer and only 15% were into enterprises: by 2007 their shares were 32%, 26% and 30%, respectively. The Finland review also describes the "social enterprise" model, where at least 30% of the employees must be either long-term unemployed or disabled and the enterprise generates significant business income, but it notes that while the outcome is attractive, its growth has been slow because it depends on entrepreneurs identifying profitable market niches.

Supported employment and rehabilitation measures in the review countries are usually delivered by separate vocational rehabilitation and sheltered employment organisations. Australia has achieved a remarkable transformation from a situation in the 1980s where there was one block-grant-funded public provider of vocational rehabilitation services, the Commonwealth Rehabilitation Service, and a multiplicity of local non-profit sheltered workshops organised as charities but also largely dependent on block-grant public funding with each organisation managing its own intake. The central government started to shift funding towards "open" employment services (promoting the employment of people with disabilities in the regular labour market) in the 1980s. A first experiment with case-based funding, where individuals are identified as needing disability-related services by Centrelink and providers receive funding tied to the individuals that they service, started in late 1999. Especially between 2005 and 2013, case-based funding was generalised and key features of the Job Network (now JSA) model – Outcome Payments, Star Ratings of provider performance and competitive tenders open to new entrants – were applied to this sector. Rehabilitation and open employment services are now organised along similar lines within Disability Employment Services (DES). One feature additional to the Job Services Australia model is an externally administered Ongoing Support Assessment, which determines the need for and the funding of continuing payments to the DES provider in respect of people with disabilities

who have already been placed into stable private-sector employment but need long-term support, for example in terms of travel to work, resolution of workplace conflicts or support for their employer.

### *Employment services*

Ministries, the PES or other public agencies may contract out employment services to external providers to complement the public services. Outsourcing can bring in specialist skills unavailable in the public sector. Competition and open tendering for contracts can potentially reduce delivery cost and stimulate innovation in service delivery. These developments also may spur improved performance in the PES through competitive pressure and best-practice transfer. They also allow the expansion of service delivery capacity without the long-term commitments involved in public sector employment – although some stability of the contracting framework is desirable to build up private sector capacity, and in Australia, where service provision is fully privatised, private sector providers have become a vocal lobby group.

Most PES outsource some specific functions. In Finland, local employment offices have outsourced most job-search training activities as well as other group activities for jobseekers. In Norway, most Job Clubs are run by external providers, and at least some Job Clubs are outsourced also in Ireland and Japan. Japan also outsources a number of call centres. The Norwegian and Swiss reviews also identify some outsourcing of placement services, noting that this is standard practice in the Canton of Geneva, but these reviews did not analyse in much detail how the PES does, or should, commission and manage outsourced delivery. In Australia and the United Kingdom, contracting-out was radically different in its scale, and these countries' experiences provide essential lessons for any countries that might be contemplating similar developments.

## *Quasi-market arrangements and large-scale contracting in Australia and the United Kingdom*

### *Job Services Australia*

In 1998, the Australian Government created the Job Network (JN), a fully outsourced employment placement market where outcome-based contracts gave providers flexibility to personalise service provision. The network comprised of for-profit and non-profit providers[28] evolved through three contracting rounds with the introduction of comparative Star Ratings in the first contact period (1998-2000) and greater prescription of service standards for jobseekers in the second (2000-03) and particularly the third (2003-09) contract period. Its performance has improved over time, with early evidence suggesting that the Job Network delivered similar outcomes for half the cost of the previous system, a first major improvement in outcomes with the elimination of low-performing providers in 2000, and record levels of placements and employment outcomes being achieved overall and for a range of disadvantaged target groups by the mid-2000s. In this process, providers used the flexibility they were given to develop new service delivery models that, at their best, allowed case managers to tailor services to different participants, test methods for motivating jobseekers, and provide continuity of support. The incentive system also focused providers and their case managers on achieving entry into sustained employment (with Outcome Payments when clients reach 13 weeks in employment and again when they reach 26 weeks), rather than on simply managing inputs and programme commencements.

Among the early problems were low levels of service for hard-to-place clients and the behaviour of some providers who used their flexibility to manipulate the incentive system. As the Job Network was adapted to minimise these negative features and meet new objectives, flexibility was reduced by compliance and reporting requirements, and transaction costs increased. Also, as many of the easier-to-place unemployed had left the caseload over the years, and the Welfare to Work reforms of the mid-2000s resulted in the transfer of harder-to-place groups from inactive benefits to an unemployment status, by 2009 the JN caseload was much more disadvantaged than had been the case at the start of the decade. At the same time, specialist programmes for disadvantaged groups had low employment outcome rates. These factors encouraged a thorough overhaul of the employment services model.

In 2009 a single Job Services Australia (JSA) contract integrated JN provision with previously separate programmes targeted at highly disadvantaged youths and adults and with the management of the Work for the Dole programme. Jobseekers now are categorised into one of four Streams, with the most job ready referred to Stream 1 and those with severe barriers referred to Stream 4. On completion of one Stream, usually after 12 months, participants move into the Work Experience Phase (see Section 4 above).

On entry into the system, the JSA provider develops an individually tailored "Employment Pathway Plan", which is updated periodically and maps out training, work experience or additional assistance that the jobseeker might need to find sustainable employment. Providers are paid a Service Fee related to the jobseeker's participation in services (during Stream Services, the key requirement is for in-person interviews once a month) as well as Placement Fees and Outcome Payments. They also have access to an "Employment Pathway Fund", which funds the recreation of Work Experience activities and can be used at any time to purchase services that tackle individual barriers to employment.

As compared with the JN model, in the JSA model the level of funding per client is less-strongly related to their unemployment duration and more-strongly related to other indicators of disadvantage as identified by the JSCI (see Section 4 above), with a supplementary evaluation of capacity limitations as precondition for allocation to Stream 4. In the early years of JSA, providers were able to instigate re-evaluations of their clients' disadvantage indicators that quite often resulted in them being reallocated to a higher Stream, and some devoted considerable energy to this. In the JSA system, the maximum total payment (including Service Fees, Outcome Payments and the allocation to the Employment Pathway Fund) for a client who is placed in the second year of the Work Experience Phase can exceed AUD 10 000, whereas in a similar scenario under the JN arrangements it was about AUD 6 600. At the same time, payments to providers for job entries by non-disadvantaged clients have been sharply reduced. In parallel with sharper differentiation in the structure of Outcome Payments, the Star Rating system was similarly reweighted to strengthen its focus on performance for the hardest-to-help jobseekers (now those in Streams 3 and 4).

The OECD country review suggests potential refinements of the design and management of Australia's employment services, but it concludes that the interlocking elements in place in this quasi-market are now highly effective and, together with strategy of activating inactive benefits (see Section 3 above), support the high aggregate employment rate that Australia has achieved progressively since the mid-1990s.

### *The UK Work Programme*

The UK Government has now implemented a very different approach. Jobcentre Plus (JCP) had previously been responsible for the competitive procurement of a wide range of employment programmes targeted at different groups, such as the young and long-term unemployed, lone parents, and people on disability benefits. The content of such programmes was often specified in some detail, with a diverse network of providers paid according to a set of uniform national fees. The multiplicity of separate JCP and Department of Work and Pensions (DWP) contracts and the associated transaction costs were perceived as inefficient, and in 2007 the government centralised the procurement of employment services provision within DWP. At this time a review (Freud, 2007) promoted the prime contractor model of employment assistance for the longer-term unemployed and other harder-to-help groups. Providers would be awarded long-term regional contracts, subcontracting as they wished with smaller providers, and share the savings in benefits made when a participant obtains sustained employment. These "multi-billion pound" contracts would encourage larger for-profit and non-profit organisations to borrow and invest against an expected income stream from outcome fees over an extended period. Although this model was not adopted immediately, its main features were implemented in the Work Programme, which replaced some 20 existing employment programmes and was expected to assist 3.3 million participants over a five-year contract period.

After a complex procurement process, 40 contracts were awarded to 18 prime providers – most having just one contract but some having several – with either two or three providers competing in a given Contract Package Area. Although subject to DWP oversight, the prime contractors have been able to engage subcontractors without the tendering rules that apply in the public sector, and are responsible for managing and monitoring the performance and quality of their subcontractors as well as their own performance. The "black box" nature of the contract gives providers great flexibility in how they secure job outcomes. Referrals to providers started in July 2011 and continue for up to five years, after which there will be a further two-year period for them to place and sustain participants in employment.

The main target groups for the Work Programme are young and long-term unemployed people receiving Jobseekers' Allowance, and people with health problems or disabilities who receive ESA and are assessed as capable of work-related activity. Although providers have been paid an initial attachment fee, they are being paid mainly through job outcome payments (when their client has been employed for 13 or 26 weeks) and, in the case of more-disadvantaged groups, through longer-term monthly "sustainment payments" for one to two years when clients remain in employment.

The first performance results for the Work Programme, published at the end of 2012, were disappointing relative to assumptions made at the time the contracts were awarded. Referrals of long-term unemployed Jobseeker's Allowance claimants have been higher than anticipated, while referrals of claimants who were moved to Jobseeker's Allowance or to ESA through the IB reassessment procedure have been lower. Employment outcome rates have been low and financial pressures have required prime contractors to rapidly reorganise their service delivery capacity.

It is not yet clear if the early problems indicate systemic weaknesses. After a major organisational reform, it can take a year or two before outcomes improve. In Australia, poorly performing providers as identified through the Star Rating system were replaced within two years of the initial launch of the Job Network, but there may be less scope for this with the prime contractor model.

## Conclusions

Despite the clear risk or tendency for activation of the unemployed to push greater numbers onto disability or other inactive benefits, the four review countries with steady low unemployment rates (Japan, Norway, Switzerland and, since the mid-2000s, Australia) all had employment rates well above the OECD average. There seems little reason to doubt that, especially in countries with high levels of benefit coverage of the non-employed working-age population, the success of activation policies in relation to unemployment is critical to achieving high employment rates. Thus, the country reviews confirm that the design and delivery of benefit systems, their eligibility conditions and employment services are important influences on the level and persistence of unemployment and benefit dependency.

In five of the review countries, the exceptions being Ireland and the United Kingdom, unemployment in the current economic and financial crisis did not reach the same level as in the recession of the early 2000s, which itself was relatively mild. However, as a result of a slow and uneven recovery, unemployment remains at a high level in many other OECD countries. In this context, it will be difficult to maintain existing activation measures or ensure the effectiveness of new measures without a significant increase in resources to provide support to the greater number of unemployed, and activation procedures will need to be adapted to ensure that jobseekers are both encouraged and helped to return to work. Three areas where resources particularly need to be increased in line with caseloads are:

- *Handling client flows:* there should be enough staff to monitor benefit claims, register client details, set up individual action plans and interview clients at regular intervals.
- *Compensating for the fall in vacancy notifications per unemployed client:* focused measures promoting a rapid return to regular work should be expanded. These include: job-search training; short vocational or remedial training; job clubs, work trials and internships. These interventions can help to ensure some continuing contact with the labour market and job readiness during a potentially lengthy unemployment spell.
- *Activating the long-term unemployed:* an adequate volume of programme places may be required for the long-term unemployed to enter a gateway process and active benefit period. Public employment creation can provide a backstop measure for the long-term unemployed but the experience of OECD countries suggests that it may be rather ineffective and costly unless strictly timebound and associated with training to provide useful skills to find work in the open labour market.

Nevertheless, the recent experience of OECD countries suggests that it may be difficult to scale-up active labour market programmes in a recession in both a timely and effective manner (OECD, 2012b, Chapter 1). One way to ensure that funding for employment services can increase in line with increases in unemployment, while limiting long-term commitments, is to contract more services out to private sector providers. Service Fees are paid to private sector providers on a per-client basis, so that the funding of employment services automatically increases with demand. As a further measure in Australia, where employment services have already been contracted out, there was a temporary increase in 2009 and 2010 in both Service Fees and Outcome Payments per client for redundant workers.

The country reviews have highlighted a number of innovative measures and strategies for activating the unemployed which provide pointers both for dealing with the crisis-induced rise in unemployment and for strengthening long-term labour market performance. However, there remains a great need for further comparative high-quality information about activation policies, involving for example more publication of administrative statistics with better documentation. Activation policy reviews for further countries would be helpful in this respect and would no doubt uncover more examples of national measures that would be of interest to other countries.

### *Notes*

1. The activation policy reviews synthesised here primarily document national policies and their microeconomic or semi-macroeconomic impact (e.g. trends in the employment rates of older workers in Japan and lone parents in Australia). Activation policies are usually characterised as "structural" influences, but they can affect unemployment outcomes with lags as short as a year or two (e.g. as seen in OECD, 2005, Chart 4.1), ranging up to a decade or more when there are successive rounds of organisational reform and new legislation. When unemployment rates are low, the policy focus often turns towards the activation of inactive benefits, which is liable to increase rather than reduce unemployment, but increases employment rates. Activation measures interact with the cycle as, for example, workers are more likely to make concessions to avoid layoffs when strong conditionality is attached to unemployment benefits; and in recessions caseworkers may make fewer direct referrals to job vacancies and greater use of other types of intervention in the unemployment spell.
2. Most of the country-specific information in this chapter is drawn from the country reviews without in-text citation of them as the source. The reviews document policies most fully for the last few years before publication, with some coverage of developments back to the late 1990s and sometimes earlier. This chapter adds some selective information on more recent policy changes.
3. Data for individual national programmes, from 1998 or 2001 onwards, are provided as an annex in the reviews for Australia (51 programmes), Finland (41 programmes), Norway (43 programmes) and Switzerland (24 programmes).
4. For a more detailed assessment of how passive and active labour market expenditures have changed following the global economic and financial crisis, see Chapters 1 of OECD (2011) and OECD (2012b).
5. In Australia, the Job Services Australia (JSA) model introduced in mid-2009 was designed to deliver budget savings (as several former programmes were rolled into one). It also reduced service and outcomes fees for placements of the short-term unemployed. As a discretionary response to the recession, redundant workers were temporarily allocated automatically to Stream 2 where higher fees are paid.
6. The United Kingdom increased the number of staff in local jobcentres but it also (since 2009) reorganised its benefit processing centres and (since 2011) moved the national management function for jobcentres into the Department, allowing staff savings (NAO, 2013).
7. See *www.oecd.org/els/social/workincentives* and Callan et al. (2012). In Ireland, work disincentives are also exacerbated by "secondary" benefits which are withdrawn or reduced when people enter regular employment. As in Australia, the loss of a medical insurance card provided to the long-term unemployed is a significant disincentive.
8. According to a time-use survey, in 1999-2000, the unemployed in Finland only spent three minutes per day on job search on average (including the days with no search), the lowest rate reported among 12 countries with such data.
9. Since the recession about one-fifth of UB recipients in Ireland have casual or part-time jobs, working up to three days a week with earnings disregards in the determination of their benefit (Pina, 2011).
10. Women aged over 60 were entitled to an age pension rather than the Mature Age Allowance.
11. For information about UK and Irish lone-parent policy reforms, see *www.dwp.gov.uk/policy/welfare-reform/lone-parents* and *www.inou.ie/workingforwork/4/changes-to-the-one-parent-family-payment*.

12. Bewley et al. (2005) and DWP (2008) document the introduction and extension of Joint Claims to ages 45 or less in 2002, ages 60 or less in 2008 and up to 64 in 2012; and the exemption from it when one member is treated as responsible for either a child or a young person. The concept of a "young person" can include people up to age 19, but not those in advanced education (DWP, 2012). The benefit payment is made to one "nominated recipient". In August 2010, there were only 20 500 active Joint Claims (Daily Hansard, Written Answers, 22 March 2011). Under Universal Credit, which from 2013 to 2017 will replace most previous means-tested working-age benefits, an applicant couple with dependent children will be required to nominate a lead carer who will be subject to work requirements depending on the age of youngest child as for lone parents (DWP, 2013c).
13. The Netherlands in 2011 set out the objective that 90% of the interactions with the unemployed managed by the Social Insurance Agency (UWV) should be online (Murray, 2011).
14. Daguerre (2009) stated the requirement as three actions per fortnight (about six per month); Robins (2009) reports a personal adviser at Jobcentre Plus explaining that they are "looking for claimants to take three active steps to look for a new job every week"; in 2012 a thread about "How many activities do you have to list on the JSA log book?" (*http://forums.moneysavingexpert.com*) suggests that six steps per week were often being required, at least some of them needing to be job applications.
15. Finland had not introduced a legal requirement for reporting of job-search actions. Requirements within IAPs would have limited applicability, because the initial job-search plan was typically set up about five months into the unemployment spell and the measures in it were not obligatory.
16. OECD (2007), assuming that direct referrals are made to 20% of vacancies with an average of three referrals per vacancy, estimated an annual average of 1.1 direct referrals per unemployed jobseeker in Finland – probably more than appear in administrative records.
17. OECD (2013) updates the information for Norway in Duell et al. (2009a), mentioning also sanctions in relation to the employer's obligation to prepare the follow-up plan after four weeks of sickness absence and to hold a meeting with the employee after seven weeks, and fines for doctors not compliant with the sickness certification rules.
18. Sanction rates for a number of OECD countries in the 1990s are reported in Gray (2003). Sanction statistics for Australia do not include cases where benefits were stopped due to failure to list job-search actions in the fortnightly reporting process, since this is treated as failure to maintain the benefit claim.
19. The description of organisational reforms in Finland given here is based partly on advice from national authorities, PES Monitor (2009) and Viljamaa (2011).
20. Local governments in Japan also manage Silver Human Resource Centres, a much larger programme than the Job Cafés. They were introduced in the 1970s, expanded rapidly in the 1990s, and now have approximately 760 000 members, which is 15% of the number of employed workers aged 65 or more. They accept contracts for work to be performed by their members, who are aged over 60 and commonly over 70.
21. When bidding to deliver services from 2009 onwards, JSA providers had to outline their plans for Local Strategies and Collaborative Arrangements with other agencies and organisations.
22. In Ireland, Community Employment (CE) projects also involve multiple community sector organisations. For example, a national network of "Congress Centres", which provides welfare advocacy and employment services under the direction of the Irish Congress of Trade Unions and local trade union councils, is staffed mainly by CE participants.
23. In the Netherlands, under the "Work and Income Act" (2003) municipalities have an "income fund" which helps to pay for means-tested assistance payments and a separate flexible "work fund" which can be used only to pay for employment or reintegration services. The municipality can keep any surplus in the "income fund", but must return any surplus in the "work fund" to the ministry.
24. In Finland, multiple objectives (such as establishments facing recruitment problems, the unemployment rate for people under 25 years of age) are defined at the level of ELY (regional) offices; the ELY offices then decide how to allocate targets across local offices.
25. Provider organisations will in principle allocate resources across their sites so as to maximise their average rating, and they might in some cases leave some individual sites understaffed and with a poor rating.
26. DEEWR (2012) compares Star Ratings at the site level with separate measures of participant experience. The results identify that a combination of factors contribute to performance, including the use of goal-oriented, employer-focused strategies that lead to individually tailored services for jobseekers.

27. In Australia until 2009, Community Work Coordinators, contracted to the Department of Employment through a tendering process, organised and assisted the creation and management of Work for the Dole projects by sponsor organisations, which included not-for-profit organisations (including charities, religious groups, and local community associations) and local or central government organisations and agencies. Currently, JSA providers may typically offer to reimburse the cost of materials and other project costs, but potential host organisations are advised that they need to provide the workplace and supervise the participants.

28. In the first JN contract period (1998-2000), the former government provider had a one-third share of the market, but since then the share of government providers has been low.

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*Chapter 4*

# Back to work: Re-employment, earnings and skill use after job displacement

*This chapter provides new and more extensive evidence about the incidence of job displacement and its consequences. Job displacement is defined as involuntary job loss due to economic factors such as economic downturns or structural change and particular efforts are made to improve data comparability across the 14 countries included in the analysis. Displacement rates as well as re-employment rates one and two years after displacement are presented in the chapter. The chapter also looks at the effect of displacement on subsequent earnings, as well as some additional aspects of job quality, and explores changes in skill requirements resulting from occupational mobility following displacement. Finally, the groups of workers most affected by displacement – both in terms of its incidence and consequences – are identified.*

## Key findings

This chapter provides new and more extensive evidence about the incidence of job displacement and its consequences for workers in 14 countries.

- Job displacement, i.e. involuntary job loss due to economic factors such as economic downturns or structural change, is highly cyclical but has not exhibited any upwards trend over the past decade. Differences in available data sources and definitions make cross-country comparisons difficult, but it appears that displacement affects around 2-7% of employees every year in the countries for which data are available.
- Some workers have a greater risk of job displacement and are more likely to experience poor post-displacement outcomes than others. In most of the countries examined, older workers and those with low education levels have a higher displacement risk, take longer to get back into work and suffer greater (and more persistent) earnings losses. While youth also have a higher risk of displacement than prime-aged workers, they fare better afterwards. Young workers generally find work relatively quickly after displacement, often in jobs with greater skill requirements than their previous jobs. Women are generally no more likely to be displaced than men, once other factors such as the type of contract they hold before displacement are taken into account. However, women are more likely than men to become disconnected from the labour market and experience longer spells of inactivity after displacement.
- The extent of earnings losses after displacement varies substantially across countries. Earnings losses tend to be fairly low in the Nordic countries, but much larger in the other countries examined in the chapter. Most of the loss in annual earnings after displacement can be attributed to time spent out of work rather than to lower wage rates upon re-employment. In most of the countries examined, men suffered from bigger and more persistent earnings losses than women, despite women taking longer, on average, to return to work. Older workers and those who did not complete secondary school also tend to suffer greater-than-average earnings losses after displacement.
- As well as lower earnings, re-employed displaced workers are more likely to work in part-time or non-permanent jobs than prior to displacement, and work shorter hours on average. Other measures of the quality of post-displacement jobs, such as the incidence of work at non-standard times, the availability of paid leave and whether workers have managerial responsibilities, also suggest a decline in job quality after displacement. Some of this effect may be due to the loss of seniority that displacement brings, as job quality tends to improve with longer tenure.
- Displaced workers tend to use fewer mathematics, cognitive, interpersonal and verbal skills and more craft and physical skills in their pre-displacement jobs than the average employee. This suggests that they may be ill-equipped to take advantage of job opportunities in expanding sectors after displacement. Nevertheless, most displaced workers who are re-employed find jobs that use similar skills to their pre-displacement jobs, even if they move to a new occupation or industry. Even among those who

experience a significant change in skill use following displacement, many move to jobs with higher skill requirements than their former jobs. However, a small sub-set of workers experience "professional downgrading", where their new jobs use far fewer skills than their previous jobs. Those who suffer professional downgrading experience significant losses in math, verbal, cognitive and interpersonal skills, modest gains in the use of craft skills and significant increases in the use of physical skills.

- Changes in skill use after displacement explain some, but not all, of the earnings losses experienced by displaced workers. Changes in industry also appear to matter, suggesting that the loss of job-specific skills plays a role alongside changes in the use of generic skills.
- These findings help identify a number of policy issues to be explored in future work. *First,* are policies that require large firms to provide re-employment services to displaced workers justified? On the one hand, this chapter shows that workers in smaller firms have a much higher risk of displacement than those in larger firm, suggesting that general active labour market programmes are needed. On the other hand, while displacement is more likely in smaller firms, the number of displaced workers is generally larger in larger firms, possibly justifying existing obligations applying to the latter. *Second,* what type of re-employment assistance and training is best suited to help displaced workers find work? Findings in this chapter suggest that the majority of displaced workers do not need retraining to find new, high-quality jobs. While many workers change industry or occupation after displacement, these changes frequently do not lead to significant changes in the skills used at work. However, a small group of displaced workers moves to jobs with significantly lower skill requirements, leading to professional downgrading and more sizeable earnings losses, and this group likely would benefit from skills assessment at unemployment entry followed by either retraining or intensive job-search support to improve the match between skills and job requirements. *Third,* should helping people return to work quickly, especially for women, older workers and the low-skilled, be a priority to limit earnings losses and skill depreciation after displacement? The finding, in this chapter, that earnings losses are almost entirely due to periods of non-employment rather than lower wages appears to support this view, expect perhaps for the minority of workers requiring retraining. *Finally,* does knowing in advance about displacement make a difference in outcomes relative to not knowing? This issue is not explored in this chapter but should be the object of future analysis, notably by looking at countries – such as the United States, with its WARN Act (Worker Adjustment and Retraining Notification Act) – which require advance notification to workers affected by economic dismissals.

## Introduction

As documented in recent editions of the *OECD Employment Outlook*, the so-called Great Recession resulted in the destruction of millions of jobs across OECD countries, as firms closed or downsized. Workers "displaced" involuntarily from these jobs have often faced long periods of unemployment, during which time their skills could have depreciated. Even when they find a new job, it may have lower pay or inferior working arrangements to their pre-displacement job. As such, the costs of job displacement may be substantial and long-lasting. While job displacement is more prevalent during a downturn, it remains significant even in good times as firms continuously adjust to structural and technological changes.

Therefore, it is important to have a better understanding of the incidence and impact of job displacement in order to guide policy for helping affected workers. While the issue of job displacement, and particularly its impact on wages and earnings, is well-documented in the academic literature, differences in the definitions, methods and data sources used make it difficult to compare results across countries and individual studies. As well, a number of key areas of research have been largely neglected in the existing literature, including the impact of displacement on skill use and working arrangements such as hours, job security and job benefits.

This chapter summarises the results of a cross-country study of job displacement over the past decade, covering Australia, Canada, Denmark, Finland, France, Germany, Japan, Korea, New Zealand, Portugal, the Russian Federation, Sweden, the United Kingdom and the United States. It attempts to fill some of the gaps in the existing literature by using a comparable methodology to examine job displacement and its consequences in these countries.[1] The chapter is organised as follows. Section 1 discusses the definitions and data sources used in the chapter, as well as their limitations. Section 2 presents estimates of the incidence of job displacement as well as identifies the types of workers most likely to be affected. Section 3 discusses the re-employment prospects of displaced workers. Section 4 examines the impact of job displacement on earnings, hours and working arrangements. Section 5 presents a detailed examination of skill use by displaced workers before and after displacement, and the links between skills and post-displacement wage losses. The implications of the findings for policy makers are discussed in the conclusions to this chapter.

## 1. Defining and measuring job displacement

In this chapter, the term "job displacement" refers to involuntary job separations due to economic or technological reasons or as a result of structural change. Ideally, the exact reason for each job separation would be observed so that job displacements could be distinguished from other forms of job separation such as voluntary quits. However, in practice, it is often very difficult to know or accurately measure the true reason for job separations. In this chapter, two main types of data source and definitions are used:

- *Firm-identified displacement:* job displacements are defined as job separations from firms[2] that, from one year to the next, experience an absolute reduction in employment of five employees or more *and* a relative reduction in employment of 30% or more (*mass dismissal*) or that ceased to operate (*firm closure*).[3] Mass dismissals and firm closures are typically identified using linked employer-employee longitudinal data, usually from administrative sources such as tax or social security records.
- *Self-defined displacement:* job displacements are defined as job separations where the explanation given for leaving the previous job cites economic reasons (e.g. redundancy, layoff, business slowdown, lack of work, firm closure, mass dismissal, etc.) or dismissal for cause (e.g. the worker was not able to do the job, employment terminated during the probation period, poor performance or behaviour of the worker, etc.).[4] Self-defined dismissal is typically measured using household panel data or cross-sectional data with retrospective questions about job displacement. In both cases, workers who separate from their jobs are asked about the reason that they left their job, allowing job displacements to be distinguished from other types of separations.

Each definition and data source has its advantages and disadvantages. Firm-identified displacement is commonly used in the literature examining the impact of job displacement on wages and earnings because a mass dismissal or firm closure can be thought of as exogenous to the skills or earning capacity of the workers involved and the large sample sizes usually involved allow for accurate estimation of post-displacement effects. However, individual or small-scale job displacements cannot be easily identified and are excluded from the analysis, even though they may have important consequences for the individuals concerned. Administrative data sources tend to yield more accurate measures of pre- and post-displacement wages and earnings than household surveys and contain more information about firm characteristics. However, administrative data sources typically have limited information on worker characteristics and can only distinguish between employment and non-employment after displacement, rather than identifying periods of job search, education/training or inactivity.

By contrast, household surveys usually have a rich array of information about the characteristics of workers and their situation after displacement, but have a smaller sample size than administrative sources. Perhaps the biggest limitation of survey data is in the identification of displacement, which relies on the accuracy of respondents' answers to questions about why they left their previous job. Their answers may be influenced by their experiences after displacement. For example, if they quickly found a new job, they may say that the reason they left their previous job was to move to a better job, in which case the separation would not be identified as a displacement. This would also tend to bias the results towards poorer post-displacement outcomes, as those who report being displaced are likely to be those that stay unemployed longer or experience greater earnings losses. The categorisation of reasons for displacement also varies considerably across the countries examined, making cross-country comparisons more difficult. For example, the treatment of separations from temporary contracts is not the same in each country. In some countries, the "end of a temporary contract" is one possible reason for leaving the previous job, and workers who leave a temporary contract voluntarily cannot be distinguished from those who do not have their contract renewed for economic reasons. In many countries, workers on temporary contracts often answer that the reason they left their previous job was due to economic reasons, rather than because their temporary contract ended. However in several countries, notably France, a majority of separations of temporary workers are attributed to the end of the contract, rather than economic reasons. For simplicity, the end of a temporary contract is not considered as job displacement in the remainder of this chapter because it is difficult to accurately identify voluntary and involuntary separations in a way that is consistent across countries. As a result, only temporary workers with at least one year of tenure who report having lost their job for economic reasons are counted among the displaced.

It is not clear, *a priori*, which of the data sources or definitions used yields the most accurate estimates of displacement. On the one hand, using administrative data excludes displacement in smaller businesses, whose workers are more likely to be displaced and who tend to have certain characteristics, as well as individual or small-scale displacements. On the other, while using survey data potentially covers a broader array of displacements, the results rely on subjective responses and involuntary displacements of temporary workers are not captured in a way that is comparable across countries. In a direct comparison of the two main types of data used in the chapter, von Wachter et al. (2009a) use matched survey and administrative data for California for the period 1990-2000. They find that administrative

data tend to overstate the incidence of displacement (by including many voluntary job separations) while survey data tend to understate the incidence of displacement because workers tend to ignore "less severe" job displacements (those which lead to only short spells of unemployment or small earnings losses) when asked about their recent experiences. These limitations should be kept in mind when comparing displacement incidence and outcomes across countries, particularly when comparing estimates for self-defined and firm-identified displacement. For this reason, these are shown separately in all the figures and tables in this chapter.

Regardless of the data source and definition used, the data are analysed in the form of annual observations. Workers are defined as displaced if they are employed in one year, and either employed in a different job or not employed in the following year and the reason for the separation is either firm-identified or self-defined displacement, as outlined above. The use of annual data will tend to underestimate the incidence of displacement because workers may be displaced several times over the course of a year.

Several additional restrictions are placed on the samples used in the analysis. Only employees are examined – i.e. employers, the self-employed or unpaid family workers are excluded from the sample. To avoid picking up job separations that happen soon after hiring (and may be the result of the firm and employee deciding that they were not well-matched, rather than for economic reasons), only workers with at least one year of tenure with the same employer are examined. Those who work in public administration, defence, private households or international organisations are also excluded from the analysis, as are those who hold more than one job prior to displacement. For countries which use the firm-identified definition of displacement, the analysis only covers workers from firms with ten or more employees in the year prior to displacement. Finally, the analysis examines only workers who were aged 20-64 years in the year prior to displacement. Young workers were excluded for the same reason as short-tenure workers. Older workers were excluded because it may be difficult to differentiate between displacement and retirement for those aged 65 years and over. Unfortunately, due to data limitations, not all sample restrictions could be implemented for every country. These differences should also be kept in mind when comparing results across countries. A full description of the data sources, definitions and sample restrictions used for each country examined in this chapter is shown in Annex 4.A1.

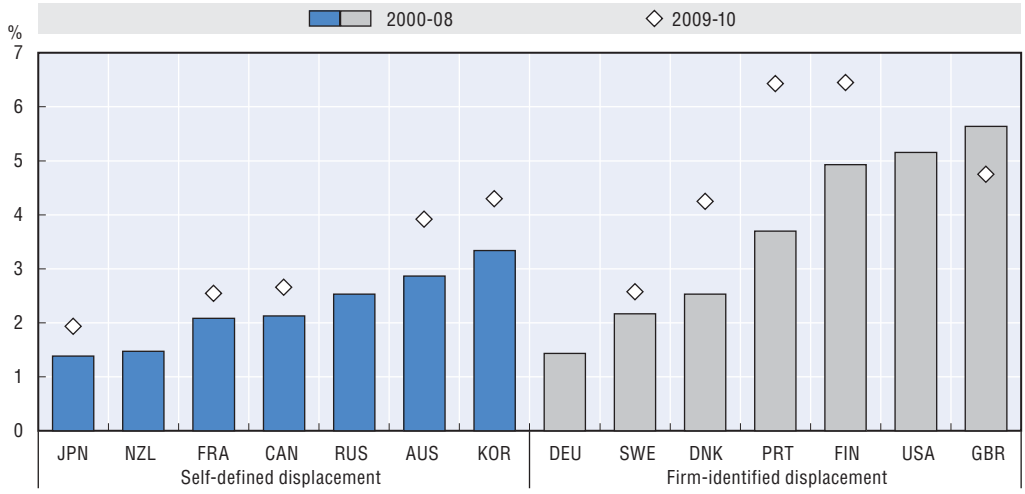
## 2. How large is the risk of job displacement and who is affected?

### *Incidence of job displacement*

Figure 4.1 shows the risk of displacement in each country for the periods 2000-08 and 2009-10, where available. These periods were chosen to provide an indication of differences in displacement and its outcomes before and during the Great Recession.[5] Displacement rates are expressed as the number of employees aged 20-64 who are displaced from one year to the next as a proportion of all employees aged 20-64. There are considerable differences in displacement rates across countries and between the pre- and post-crisis periods. The effect of the Great Recession is clear, with higher displacement rates in all countries (except the United Kingdom) in 2009-10 than in previous years. Nevertheless, displacement rates are relatively low in all the countries examined, with displacement affecting between 1.5% and 7% of employees each year during the 2000s.[6] Despite displacement only affecting a relatively small proportion of employees each year,

Figure 4.1. **Displacement rates, 2000-10**[a]

Percentage of employees aged 20-64 who are displaced from one year to the next, averages




*a)* See Annex 4.A1 for a full description of the samples, years and definitions used for each country.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

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displaced workers have quite different characteristics than other employees (see below) that may impede their ability to find work quickly after displacement and justify greater policy intervention to prevent long spells of unemployment or inactivity.

As seen in the most recent economic downturn, job displacement is highly cyclical in most countries examined. A surge in displacement rates was also seen in previous recessions in the early 1980s and early 1990s in the few countries for which long time series on displacement rates are available. Outside these cyclical movements, however, there does not appear to have been any clear trend in the incidence of displacement over the past few decades in the countries examined in this chapter.

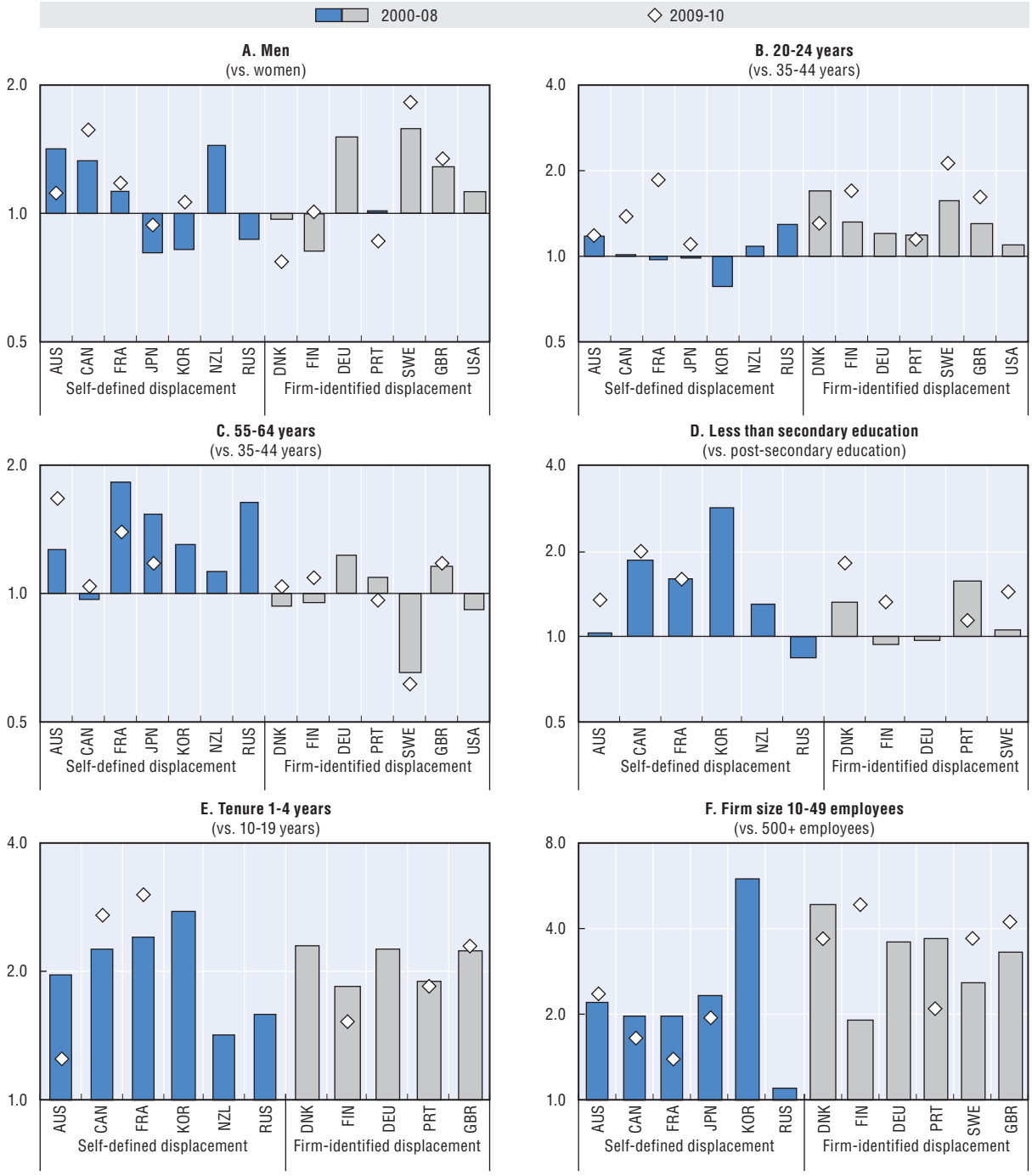
The extent to which cross-country differences in displacement rates reflect structural differences in labour market policies and institutions is unclear from this descriptive analysis. Despite the efforts made to ensure that consistent definitions and methods were used for every country, there remains some doubt about the cross-country comparability of estimates of displacement rates due to the issues discussed in Section 1. This should be kept in mind when interpreting the results presented in Figure 4.1 and in the remainder of the chapter.

### *Which workers have the highest risk of job displacement?*

Figure 4.2 shows the relative incidence of job displacement by selected demographic and job characteristics. Displacement rates for men are, on average, higher than for women in most countries. The exceptions are Korea, the Russian Federation, Japan and Finland, where women are more likely to be displaced than men, and Denmark and Portugal, where there is little difference. However, the gender gap in displacement rates may be driven by differences in the types of jobs that men and women hold, rather than any underlying discrimination against men when it comes to dismissal.

Figure 4.2. **Relative displacement rates by personal and job characteristics, 2000-10**[a]

Ratios of the displacement rate for each specified group to that of the comparison group, 2000-08 and 2009-10 averages




*Note:* Logarithmic scales.

*a)* Each panel shows the ratio of the re-employment rate for each specified group to that of the comparison group. See Annex 4.A1 for a full description of the samples, years and definitions used for each country. No data on displacement rates by education for Japan or the United States. The firm-size categories are as shown except: the category *10-49 employees* refers to *less than 20 employees* for Australia and Canada, *10-29 employees* for Japan and *21-50 employees* for the Russian Federation; and the category *500+ employees* refers to *1 000+ employees* for Canada.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

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Table 4.1 shows that when other factors, including industry and occupation, are controlled for, men are not more significantly likely to be displaced than women except in Germany and Sweden. Indeed, in several countries, women are actually significantly more likely to be displaced than men. However, with the exception of Portugal, these positive effects are found in countries where it is not possible to control for contract type, suggesting that that women's increased risk of displacement may be due, in part, to their higher likelihood of having a non-permanent contract.

Table 4.1. **Factors affecting displacement risk, average 2000-10**

Results of regression analysis holding all other factors constant

| | Australia | Canada | Denmark | Finland | France | Germany |
|---|---|---|---|---|---|---|
| Women (versus men) | n.s. | n.s. | + | + | n.s. | - |
| 20-24 years (versus 35-44 years) | n.s. | n.s. | + | + | n.s. | + |
| 55-64 years (versus 35-44 years) | + | + | + | + | + | + |
| Education level | n.s. | n.s. | - | - | - | + |
| Firm size | - | - | - | - | - | - |
| Job tenure | - | - | - | - | .. | - |
| Non-permanent contract (versus permanent) | + | + | .. | .. | + | .. |
| Public sector (versus private sector) | - | - | .. | .. | - | .. |

| | Korea | New Zealand | Portugal | Russian Federation | Sweden | United States[a] |
|---|---|---|---|---|---|---|
| Women (versus men) | n.s. | n.s. | + | n.s. | - | + |
| 20-24 years (versus 35-44 years) | n.s. | n.s. | - | n.s. | + | - |
| 55-64 years (versus 35-44 years) | - | n.s. | + | n.s. | - | + |
| Education level | - | n.s. | - | + | + | .. |
| Firm size | - | .. | + | n.s. | - | - |
| Job tenure | - | - | - | - | .. | - |
| Non-permanent contract (versus permanent) | n.s. | .. | + | + | .. | .. |
| Public sector (versus private sector) | - | .. | .. | + | - | .. |

*Note:* The regressions include controls for industry, occupation, region and year.
+/-: Indicates that effect is positive/negative and significantly different from zero at 90% confidence level or higher.
n.s.: Indicates that effect is not significantly different from zero at 90% confidence level or higher.
..: Indicates that the variable was not included in the regression because data were not available. No comparable data available for Japan. See Annex 4.A1 for a full description of the samples, years and definitions used for each country.
*a)* US results are based on firm-identified displacement from the Longitudinal Employer Household Dynamics (LEHD) Database.
*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

Displacement rates tend to be highest for the youngest and oldest workers. Figure 4.2 shows that in the Nordic countries, the United Kingdom, the Russian Federation, Germany and Australia, workers aged 20-24 years face displacement rates for the period 2000-08 approximately 20-70% higher than those for prime-aged workers, with the gap growing during the Great Recession in most of the countries for which data are available. These effects remain after controlling for other job and worker characteristics in Germany, Denmark, Finland and Sweden, although young workers are significantly less likely to be displaced than prime-aged workers in Portugal and the United States (Table 4.1).[7]

Older workers (aged 55-64 years) also have a higher incidence of displacement than prime-aged workers in Australia, France, Japan, Korea, the Russian Federation, Germany and the United Kingdom (Figure 4.2). Indeed, after controlling for other factors, older workers have a significantly higher risk of displacement than prime-aged workers in all the countries for which data are available except Korea, New Zealand, the Russian Federation and Sweden

(Table 4.1). One of the reasons that this effect is less evident in the raw displacement rates in Figure 4.2 is that older workers have longer average tenure in their jobs, and long tenure protects workers against displacement (see below).

Workers with less than secondary education are more likely to be displaced than those with post-secondary qualifications in many countries (Figure 4.2). This effect was more pronounced during the Great Recession, coinciding with other evidence that the low-skilled were more adversely affected (e.g. OECD, 2010), and with previous work on displacement that found a higher risk of displacement for low-skilled workers (Borland et al., 2002). However, this effect disappears in some countries once other factors are controlled for.

The clearest cross-country patterns in displacement probabilities relate to job tenure and firm size. Workers with 1-4 years of job tenure are approximately 1.5 to 3 times more likely to be displaced than those with 10-19 years of tenure. This is consistent with previous studies which find that long tenure protects workers against displacement (e.g. Albaek et al., 2002). The risk of job displacement decreases with firm size in all countries examined except the Russian Federation, so that workers in firms with 10-49 workers are 2-6 times more likely to be displaced than those in firms with 500 or more workers. This holds for both firm-identified and self-defined displacement, so cannot be attributable solely to the definition of mass dismissal used for firm-identified displacement. The impact of job tenure and firm size on displacement risk is statistically significant even after controlling for other personal, firm and job characteristics in most of the countries for which data are available (Table 4.1).

Finally, having a non-permanent contract significantly increases the risk of displacement, other things equal, in the few countries for which data are available except Korea (Table 4.1). Workers in the public sector are significantly less likely to be displaced than those in the private sector, which may reflect the greater difficulty of making dismissals in the public sector in many OECD countries, as well as the nature of work in the sector and its relative lack of exposure to market forces.

## 3. Getting back to work after job displacement

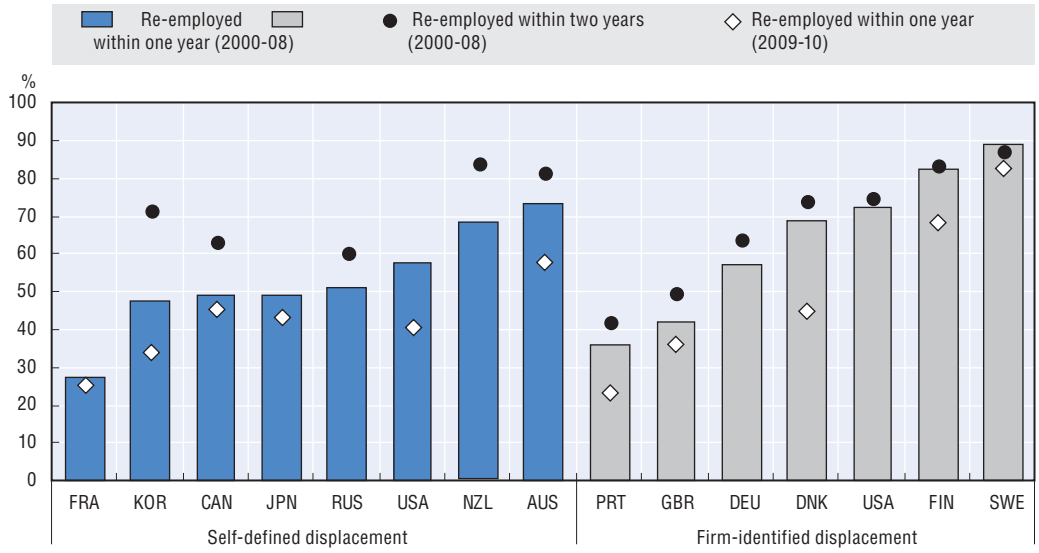
This section examines how long it takes workers to get back to work after displacement and the groups that are most at risk of losing touch with the labour market. The data available do not allow for examination of the average time spent out of work after displacement in a manner that is comparable across countries. Instead, annual data on employment status are used to determine the proportion of displaced workers who are employed within one and two years of displacement.[8] For example, a worker who is observed in April each year and who is displaced between April 2007 and April 2008 is said to be re-employed within one year if he/she is employed in April 2008 and to be re-employed within two years if employed in April 2009 (regardless of whether or not he/she was employed in April 2008). This method tends to underestimate true re-employment rates because workers may be employed for some of the period following displacement but not in the month when they are observed again. By contrast, it may overestimate the extent of stable re-employment because workers may be employed in the month when they are observed but lose their new job quickly afterwards. It is not possible to determine how these biases vary across countries. These limitations and the other differences in the data and estimation methods used, as outlined in Section 1, should be kept in mind when making cross-country comparisons of re-employment rates.

### *Re-employment rates*

Figure 4.3 shows the proportion of displaced workers who were re-employed within one and two years in each of the countries for which data are available.[9] Re-employment rates within one year of displacement range from around 30% in France and Portugal to more than 80% in Finland and Sweden. Several countries showed a marked improvement in re-employment rates between the first and second year after displacement, notably Korea and Canada. However, comparisons across countries should be made with caution for the reasons noted above. What is clear is that re-employment rates fell markedly across all countries during the Great Recession. The biggest falls were in Denmark, the United States and Portugal, which all suffered a large increase in unemployment. However, large falls in re-employment rates were also recorded in Australia and Korea where unemployment rates were much less affected.

Figure 4.3. **Re-employment after displacement**[a]

Proportion of displaced workers who are re-employed within one and two years, 2000-08 and 2009-10 averages




*a)* See Annex 4.A1 for a full description of the samples, years and definitions used for each country.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

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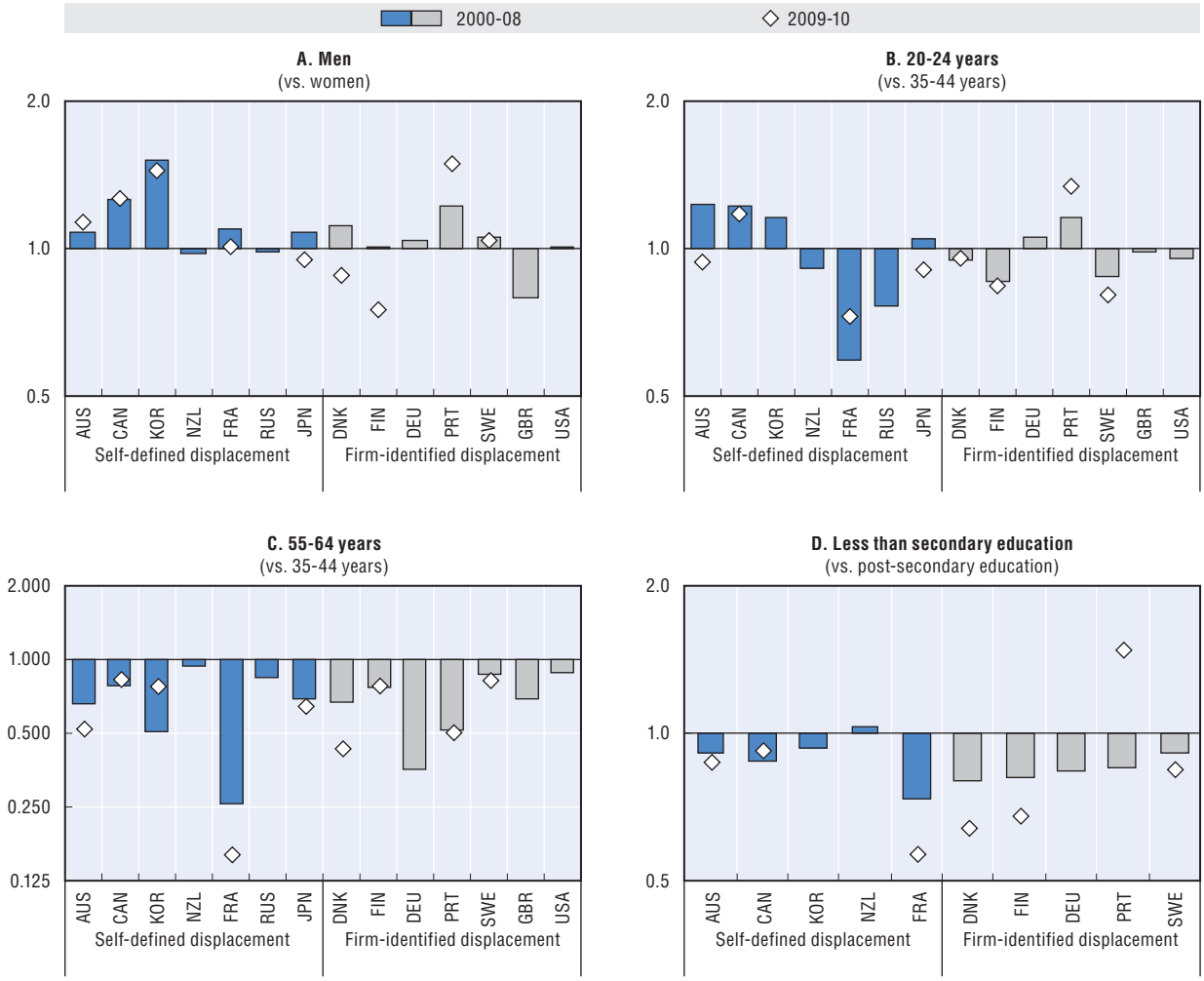
### *Which workers take the longest to get back to work?*

The speed of re-employment varies considerably across different demographic groups. Figure 4.4 shows the relative re-employment rates of various groups. Men have higher re-employment rates than women in most countries, although this pattern was reversed in Denmark and Finland during the Great Recession. Low-educated people also have lower re-employment rates than those with post-secondary qualifications in all the countries for which data are available except New Zealand. The relative situation of the low-skilled deteriorated during the Great Recession in Denmark, Finland and France, but improved in Portugal and, to a lesser extent, in Canada. The evidence is mixed when comparing youth (aged 20-24 years) with prime-aged people (35-44 years), with youth getting back to work more quickly in Australia, Canada, Japan, Korea, Germany and Portugal, but more slowly in several other countries, notably France and the Russian Federation. However, older people (aged 55-64 years) are less likely to be working within a year of displacement than

Figure 4.4. **Relative re-employment rates by characteristics**[a]

Averages




*Note:* Logarithmic scales.

*a)* Each panel shows the ratio of the re-employment rate for each specified group to that of the comparison group. See Annex 4.A1 for a full description of the samples, years and definitions used for each country.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

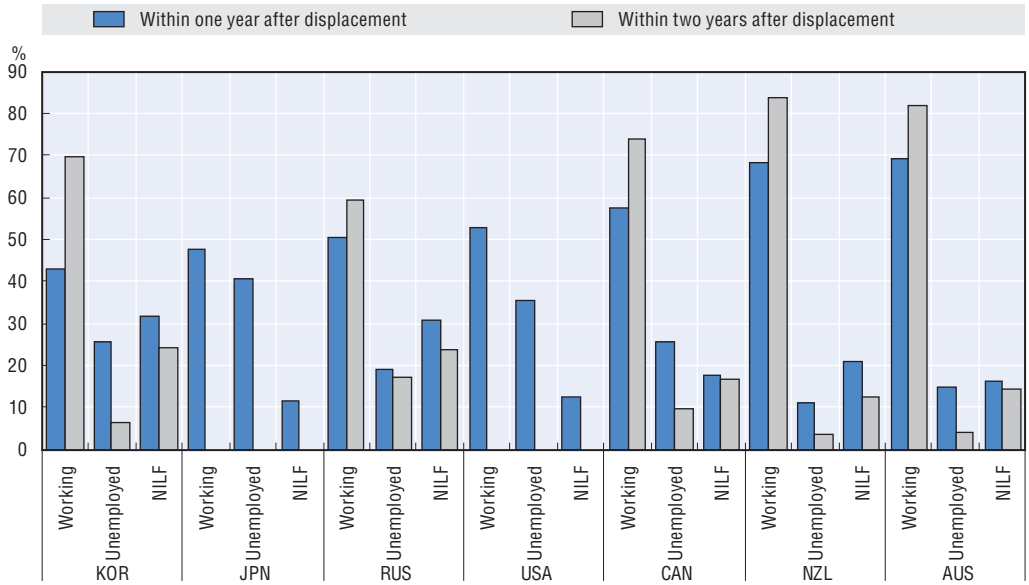
StatLink http://dx.doi.org/10.1787/888932853036

prime-aged people in all the countries examined, particularly in France, Germany and Portugal where re-employment rates for older people are less than half those for prime-aged people.

### *What happens to displaced workers who are not re-employed?*

On average during the 2000s, around 50% of displaced workers are not employed within one year and 30% remain out of work one year later. For a sub-set of countries, it is possible to identify the main activity of those who are not employed to better understand post-displacement outcomes. Three main labour force states are examined in Figure 4.5: *working* (as an employee or self-employed); *unemployed* (i.e. not working but searching actively for work and available to start work); and *not in the labour force* (i.e. not working and either not searching actively for work or not available to start work or both). Within a year of displacement, the majority of those not working are unemployed in Canada, Japan and

Figure 4.5. **Labour force status of displaced workers after displacement, average 2000-10**[a]




NILF: Not in the labour force.

*a)* Only countries using self-defined displacement have data available on labour force status after displacement. See Annex 4.A1 for a full description of the samples, years and definitions used for each country.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853055

the United States, whereas a majority are not in the labour force in the other countries examined. Within two years, with the exception of the Russian Federation, there is a sizeable drop in the proportion unemployed in all countries and a smaller fall in the proportion that remains out of the labour force. This suggests that those who remain searching for work are more likely to re-enter employment within two years than those who are less connected with the labour force after one year.

Among those who have not re-entered work within one year of displacement, women are more likely than men to be out of the labour force, as are older people and those with lower levels of education (Table 4.2). These patterns are similar in all the countries

Table 4.2. **Percentage of non-working displaced workers who are not in the labour force within one year of displacement, by characteristics, average 2000-10**[a]

| | Australia | Canada | France | Japan | Korea | New Zealand | Russian Federation | United States |
|---|---|---|---|---|---|---|---|---|
| Men | 47.6 | 33.0 | 38.3 | 9.9 | 46.0 | 61.3 | 60.5 | 19.8 |
| Women | 58.1 | 49.2 | 43.1 | 35.3 | 66.2 | 70.8 | 62.1 | 34.1 |
| 20-24 years | 29.4 | 60.6 | 39.0 | 7.6 | 42.1 | .. | 34.4 | 26.6 |
| 35-44 years | 53.2 | 34.5 | 22.4 | 16.6 | 51.3 | .. | 52.7 | 22.5 |
| 55-64 years | 74.1 | 57.5 | 78.9 | 35.7 | 68.1 | .. | 89.4 | 35.0 |
| Less than secondary | 64.0 | 46.9 | 44.7 | .. | 60.8 | .. | 61.8 | 32.4 |
| Secondary | 59.0 | 47.0 | 39.1 | .. | 57.6 | .. | 64.3 | 27.1 |
| Post-secondary | 43.9 | 34.7 | 35.9 | .. | 45.5 | .. | 58.1 | 23.4 |

..: Data not available.

*a)* Only countries using self-defined displacement have data available on labour force status after displacement. See Annex 4.A1 for a full description of the samples, years and definitions used for each country.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

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examined. This may not be of concern if people give up searching for work in order to undertake education or training or to care for children or sick or elderly relatives. However, very few displaced workers are in full-time education or training within one year of displacement and those that are tend to have higher levels of education already. Many older displaced workers who are not re-employed retire completely from the labour force.

## 4. Earnings, hours and working arrangements after displacement

The previous section showed that most displaced workers get back into a new job within one or two years. However, the effects of displacement on their pay and working arrangements can be longer-lasting. This section examines the post-displacement earnings, hours, job security and other working arrangements of displaced workers. Due to data limitations, not all aspects could be examined for every country. A full analysis of the interaction between post-displacement pay and working arrangements, notably to examine whether workers trade off higher pay for better working arrangements (or vice versa), is beyond the scope of this chapter but would be a fruitful area for future research.

### *Earnings losses after displacement*[10]

The simplest way to determine the scale of earnings losses after displacement would be to compare workers' earnings before and after displacement and compute the difference. However, this is likely to underestimate the true cost of displacement because displaced workers are likely to have missed out on wage rises that would have occurred in their previous job had they not been displaced. The seminal paper of Jacobson et al. (1993) attempted to more accurately measure the cost of displacement by comparing earnings changes for displaced workers before and after displacement with those for workers who were not displaced.

This *difference-in-differences* approach has proven very influential and there is an extensive literature examining post-displacement earnings and wage losses in many OECD countries using methods similar to that of Jacobson et al. (1993) (see Annex 4.A2[11] for a review). Accurate comparisons across country studies are very difficult to make because of differences in the definition of displacement, measures of earnings/wages and year and groups of workers on which authors focus. Nevertheless, the largest hourly, weekly or monthly wage losses appear to be found in Germany, Italy, the United Kingdom and the United States. On the other hand, in Belgium and Japan, wage losses are estimated to be rather low. Quarterly or annual earnings losses are larger than monthly, weekly or hourly wage losses as they reflect the combined effect of periods of non-employment and reductions in hourly wages or hours worked. For instance, earnings losses of about 30% are found in France compared with wage losses of about 9%. Similarly, in the United States, earnings losses range from 21% to 60% while wage losses are more modest varying between 8% and 16%. In studies where long time series of data following displacement are available, the size of earnings and wage losses tend to decline over time, but generally persist for a number of years following displacement. Some studies also find that wages and earnings decline – albeit modestly – in the years leading up to displacement.

In an attempt to provide comparable cross-country estimates of the impact of displacement on earnings, this chapter adopts a methodology based on Jacobson et al. (1993) and applies it to a similar sample of workers and years from broadly comparable data sources for several OECD countries (see Box 4.1 for a full explanation of the methodology used). Most of the results presented below are estimates of real gross annual

### Box 4.1. **Measuring the true value of earnings losses after displacement**

The effect of displacement on earnings is estimated in this chapter using regression analysis similar to that used by Jacobson et al. (1993). The analysis is restricted to those countries for which displacement can be identified as due to mass dismissal or firm closure, as defined in Section 1. These are Denmark, Finland, Germany, Portugal, Sweden, the United Kingdom and the United States. One further restriction is applied on top of the general sample restrictions used elsewhere in this chapter (see Section 1), which is to limit the sample to those aged 25-54 years in the year prior to displacement.

The analysis examines displacements that occur between 2000 and 2005 and their impact on earnings in the two years before and five years after displacement. The model used assumes that there is no difference in the earnings movements of displaced and non-displaced workers in the third year prior to displacement. In each year between 2000 and 2005, workers in the sample are divided into a treatment group (displaced workers) and a control group (non-displaced workers) and their earnings followed for up to five years before displacement and five years afterwards. The six resulting cohorts of data are then pooled to increase the sample size. For example, the 2002 cohort will include data on earnings from 1997 to 2006, with the treatment group comprising workers who were displaced in 2002 and the control group workers who were not displaced in 2002 (but who may have been displaced after 2002). The only other restriction imposed is that workers must have earnings in at least one of the five years after displacement. This is to eliminate the possibility that some people do not appear to be re-employed after displacement when in fact they have permanently left the dataset (e.g. due to death, migration, retirement, etc.).*

The regression model is estimated using the following fixed-effects specification:

$$y_{it} = \alpha_i + \gamma_t + X_{it}\beta + \sum_{k=-3}^{4} D_{it}^{k}\delta_k + \sum_{k=-3}^{4} C_{it}^{k}\theta_k + \varepsilon_{it}$$

where $y_{it}$ is either the monthly or annual earnings of worker $i$ at time $t$; $D_{it}^{k}$ is a set of dummy variables capturing the event of displacement: $D_{it}^{k} = 1$ if, in period $t$, worker $i$, had been displaced $k$ years earlier, where $k$ ranges from -3 to 4; $\varepsilon_k$ is the effect of displacement on a worker's wages/earnings $k$ years following its occurrence; $C_{it}^{k}$ is a set of dummy variables for each year in the cohort: $C_{it}^{k} = 1$ in period $t$ for all workers, where $k$ ranges from -3 to 4; $\theta_k$ captures the wage patterns of non-displaced workers in the lead up to and aftermath of the displacement event; $X_{it}$ consists of the observed time-varying characteristics of the worker; $\gamma_t$ are the coefficients of a set of dummy variables for each calendar year in the sample period that capture the general time pattern of wages in the economy (e.g. 2000, 2001, 2002, etc.); $\alpha_i$ are individual fixed effects; and $\varepsilon_{it}$ is an error term assumed to have constant variance and to be uncorrelated across cohort-individuals and time, but may be correlated between the same individual who appears in multiple cohorts.

The dependent variable is real gross wage and salary earnings. In years when individuals do not have any earnings, they are assigned a value of zero, rather than being dropped from the sample. The estimation was done using either annual or monthly earnings (or both where available). The results reported in the chapter are from a fixed-effects model without controls for time-varying characteristics of the worker. The models were also estimated including controls for worker characteristics but the results were generally of a similar magnitude as the baseline models. These results were not included in the chapter because available data on worker characteristics varied across countries.

* Note that workers can appear in the treatment group in one cohort and the control group in another cohort. To allow for this possibility, errors are assumed to be correlated between the same individuals in different cohorts.

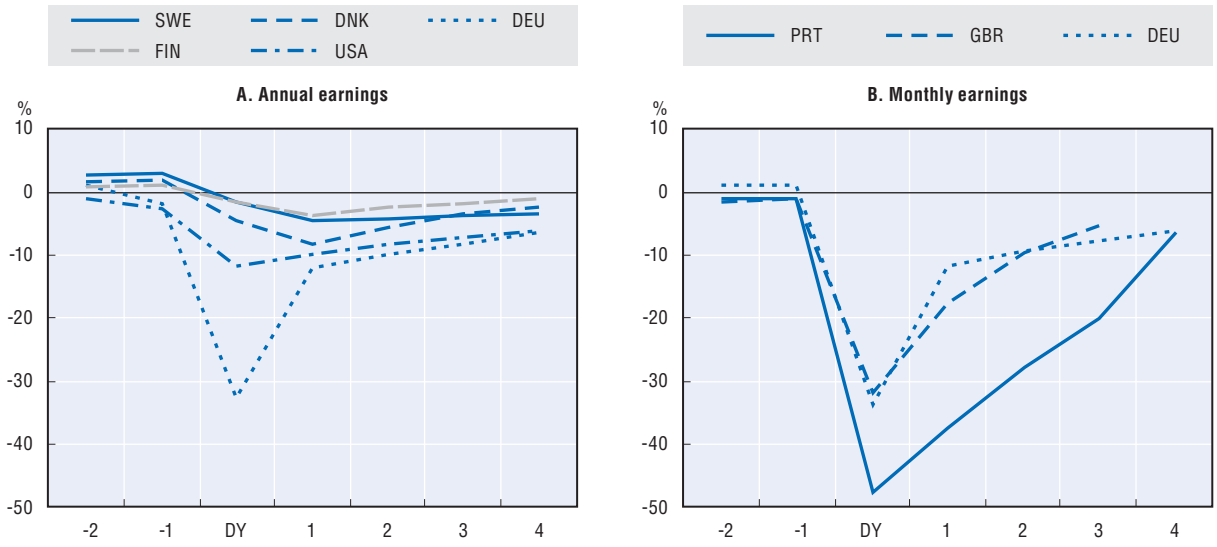
*earnings* losses in the years leading up to and after displacement due to a mass dismissal or firm closure for workers. They include losses due to lower wage rates, shorter hours as well as periods of non-employment when the displaced worker had no earnings. Periods of non-employment/earnings are included so that the full financial cost of displacement can be assessed,[12] but also because reliable estimates of monthly *wage* effects could not be made for most of the countries examined. However, for Germany, Portugal and the United Kingdom, estimates of monthly wage effects for workers with non-zero earnings in each year after displacement are calculated and are discussed in the text where relevant.

Figure 4.6 shows the estimated earnings effect of displacement. In all the countries examined, earnings fell significantly in the years following displacement, although the size of the effect varies considerably across countries. Displaced workers in the Nordic countries experience relatively small falls in earnings, while those in Germany, Portugal and the United Kingdom have losses of 30-50% in the year of displacement and the United States is somewhere in between.[13] In all the countries examined, the earnings effects subside over time, although significant differences between pre- and post-displacement earnings remain in Germany and Portugal even five years after displacement. There is little evidence of large-scale pre-displacement earnings effects. Total *income* losses, while not examined here, are likely to be smaller than earnings losses because falling earnings will be offset for most displaced workers by unemployment benefits and reduced taxation. OECD (2011) examines the extent to which large declines in earnings are offset by countries' tax and transfer systems, finding that the buffering effects of tax and transfer systems vary considerably across countries.

As discussed in Section 3, many workers experience periods of non-employment after displacement, during which time their earnings will be zero. For most countries, it is difficult to determine how much of the estimated earnings effect shown in Figure 4.6 is due

Figure 4.6. **Earnings changes before and after displacement**[a]

Percentage of pre-displacement earnings




DY: Displacement year.

*a)* Pre-displacement earnings is average earnings in the year prior to displacement (-1 in the figure). See Annex 4.A1 for a full description of the samples, years and definitions used for each country.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

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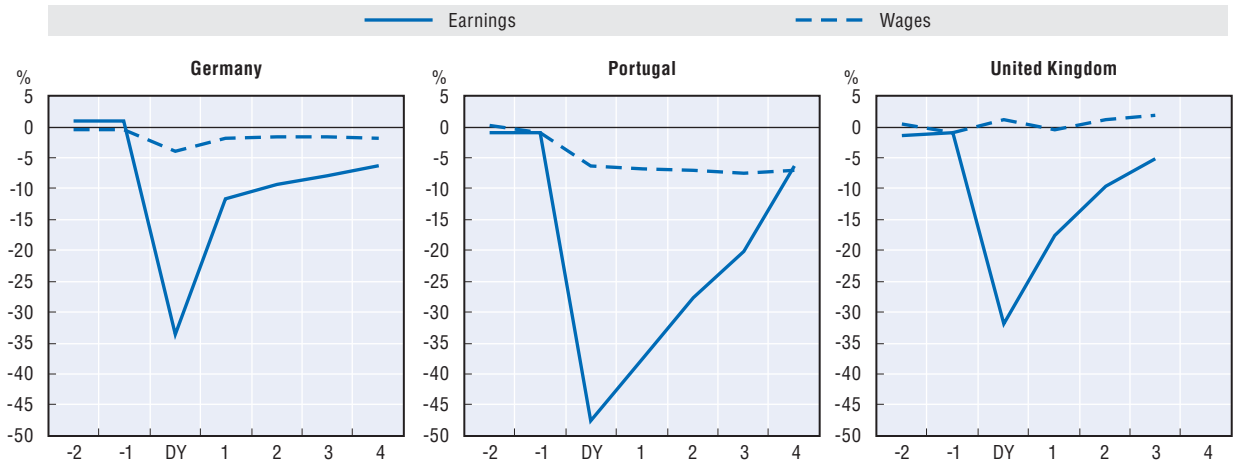
to non-employment and how much is due to lower wages in post-displacement jobs. However, for Germany, Portugal and the United Kingdom, monthly data allow for the separate estimation of earnings and wage effects, where wage effects are estimated only for workers who have non-zero monthly earnings in each year following displacement. The results, shown in Figure 4.7, suggest that most of the estimated earnings effects are due to non-employment, rather than lower wages. Indeed, in Germany and the United Kingdom, there is little evidence of post-displacement wage effects. However, it should be kept in mind that the estimates in Figure 4.7 are only for workers who return to work quickly after displacement. Workers who have long periods out of work may suffer greater wage losses when they do return to work, as well as earnings losses due to non-employment.

Figure 4.7. **Monthly earnings and wage changes before and after displacement**[a]

Percentage of pre-displacement earnings




DY: Displacement year.

*a)* Pre-displacement earnings is average earnings in the year prior to displacement (-1 in the figure). Earnings effects are calculated for all displaced workers who have non-zero monthly earnings in at least one year after displacement. Wage effects are calculated for displaced workers who have non-zero monthly earnings in every year after displacement. See Annex 4.A1 for a full description of the samples, years and definitions used for each country.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

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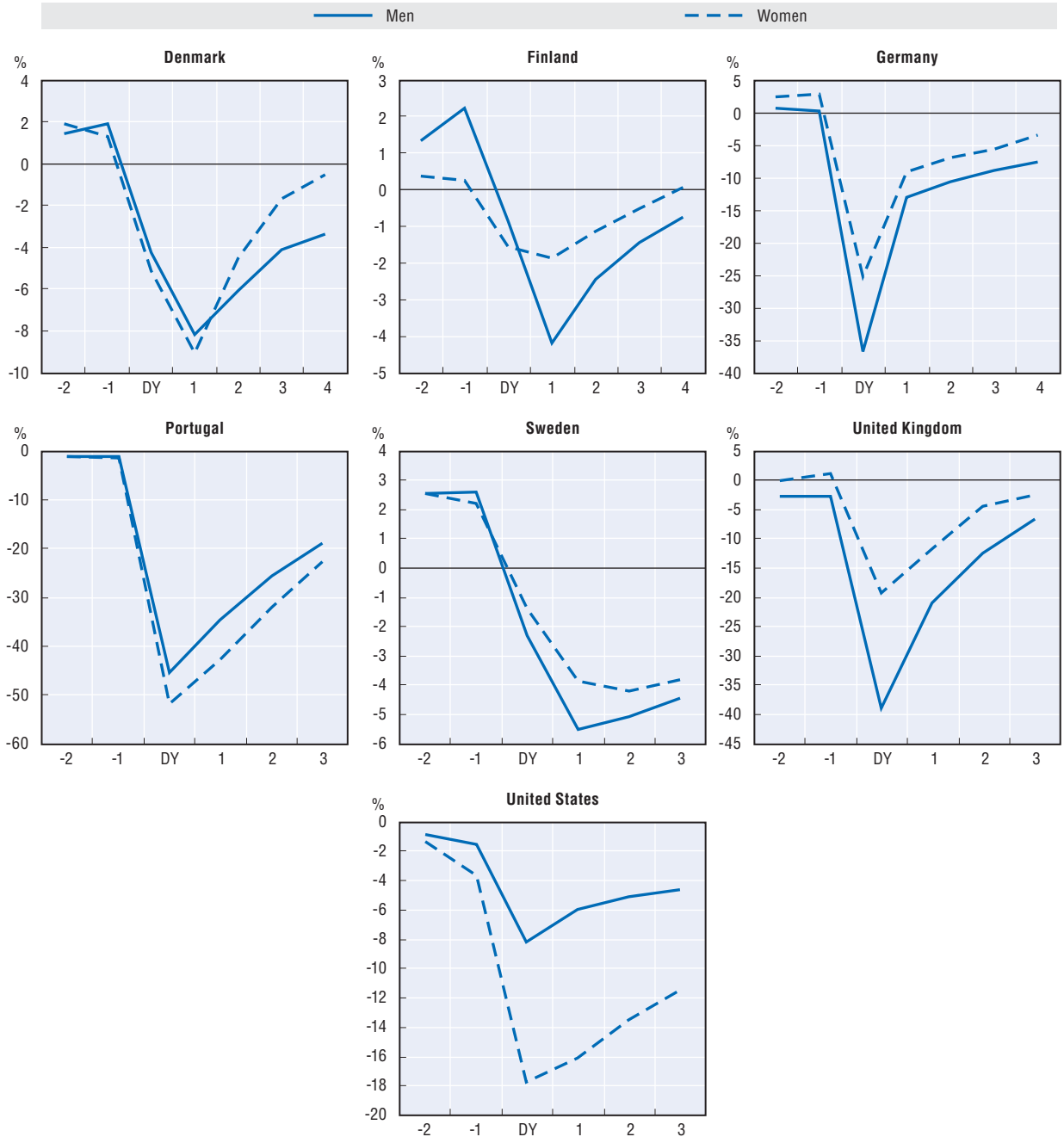
Figure 4.8 shows the earnings effects of displacement for men and women separately. In Finland, Germany, Sweden and the United Kingdom, men tend to suffer greater earnings losses than women after displacement, while in Denmark, women suffer slightly larger initial losses but bounce back quickly. This is despite women taking longer on average to re-enter work and being more likely to be completely disconnected from the labour force after displacement than men. This suggests that men may face bigger wage losses after displacement than women in these countries. These findings are consistent with some previous research on gender differences in earnings or wage effects after displacement (Crossley et al., 1994 for Canada; Appelqvist, 2007, for Finland; Abe et al., 2002 for Japan). However, in Portugal and the United States, women have bigger losses than men. In the United States, women's earnings are still around 10% lower than pre-displacement levels four years after displacement.

Older workers tend to suffer from greater earnings losses after displacement than younger or prime-aged workers (Figure 4.9). The differences by age are particularly persistent in the Nordic countries, where the earnings of younger workers bounce back

Figure 4.8. **Earnings changes before and after displacement by gender**[a]

Percentage of pre-displacement earnings




DY: Displacement year.

*a)* Pre-displacement earnings is average earnings in the year prior to displacement (-1 in the figure). See Annex 4.A1 for a full description of the samples, years and definitions used for each country. Data refer to annual earnings for Denmark, Finland, Portugal, Sweden and the United States and monthly earnings for Germany and the United Kingdom.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

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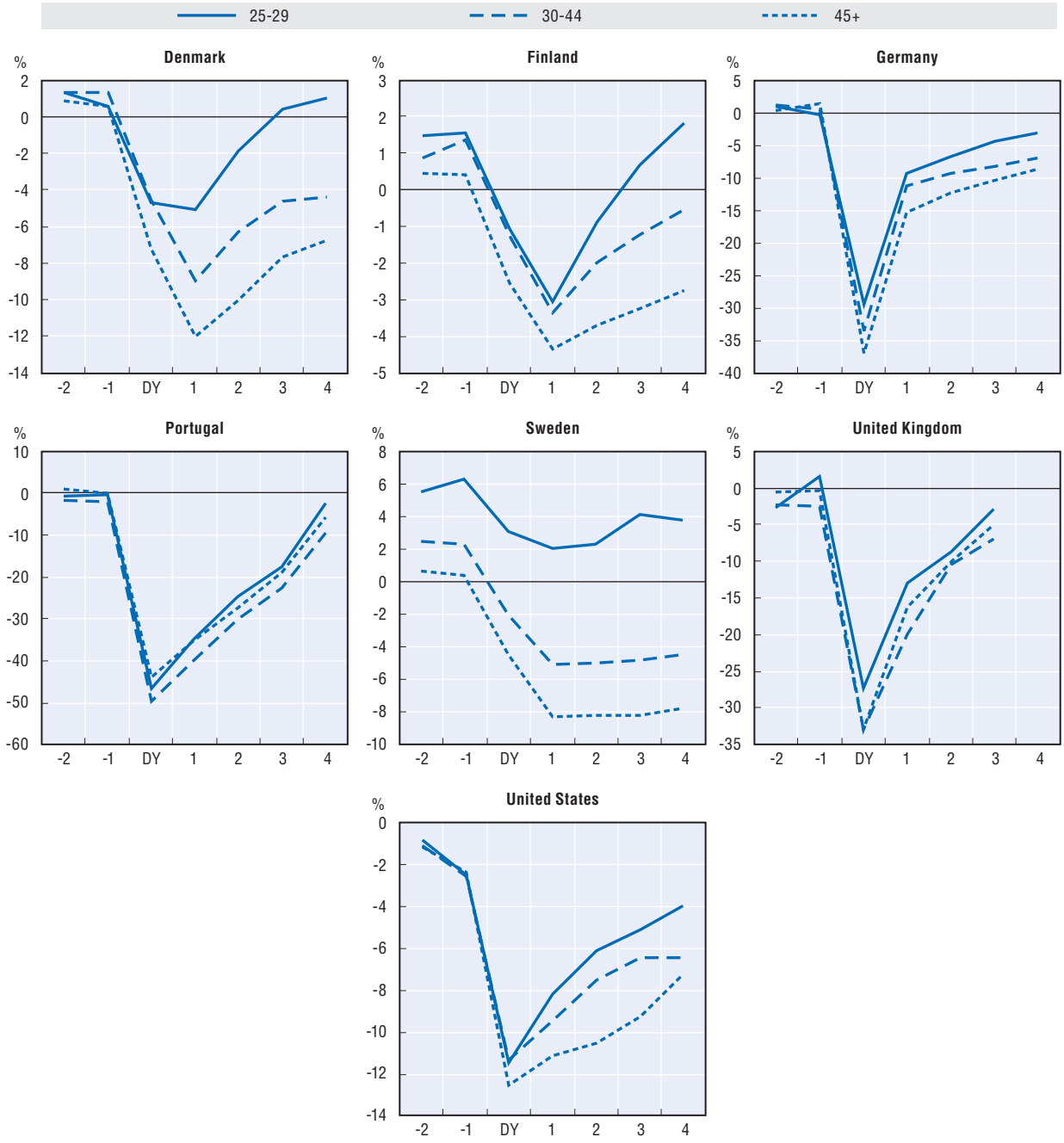
Figure 4.9. **Earnings changes before and after displacement by age**[a]

Percentage of pre-displacement earnings




DY: Displacement year.

*a)* Pre-displacement earnings is average earnings in the year prior to displacement (-1 in the figure). See Annex 4.A1 for a full description of the samples, years and definitions used for each country. Data refer to annual earnings for Denmark, Finland, Portugal, Sweden and the United States and monthly earnings for Germany and the United Kingdom.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853131

quickly after displacement. Indeed, in Sweden, the youngest workers actually see their earnings increase after displacement instead of decrease. No doubt part of the earnings-loss differential by age is due to the slower re-employment of older workers after displacement highlighted in Section 3.[14] However, there is some evidence of negative monthly *wage* effects increasing by age even for those who return to work quickly in Germany and the United Kingdom, and to a lesser extent in Portugal (the three countries for which data are available). In the displacement literature, larger wage and earnings losses are commonly found for older workers or those with more seniority. (e.g. Morissette et al., 2007 for Canada; Lefranc, 2003 for France; Abe et al., 2002 for Japan; Dixon and Stillman, 2009 for New Zealand; Borland et al. 2002 for the United Kingdom; Abbring et al., 2002 and Couch and Placzec, 2010 for the United States).

Workers who have not finished secondary school also tend to experience larger earnings falls after displacement than those with higher educational qualifications (Figure 4.10). This pattern is evident in all the countries examined (although the differences are small in absolute terms in the Nordic countries), and can be explained in part by the poorer re-employment prospects of low-qualified workers after displacement (see Section 3). However, even workers who get back to work within one year experience a lower monthly wage in Germany and Portugal (the only countries for which data are available) after displacement if they have lower educational qualifications (not shown in Figure 4.10). These findings are consistent with existing research that finds that the earnings or wage cost of displacement is highest for the least-educated workers (Borland et al., 2002; Kodrzycki, 2007; Podgursky and Swaim, 1987; Swaim and Podgursky, 1989).

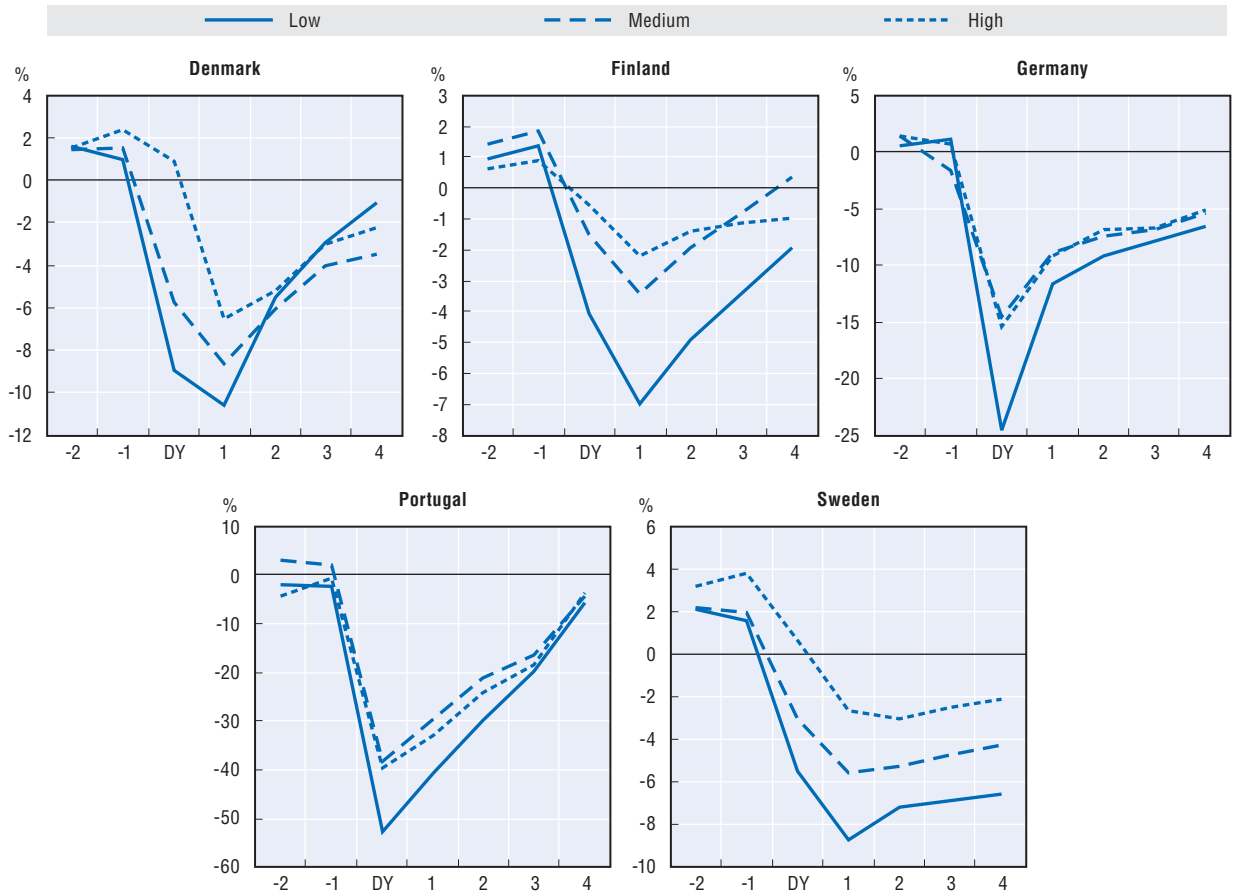
### *Working hours and job security after displacement*

Increases in the incidence of non-standard working arrangements such as part-time or temporary work after displacement can have significant effects on workers' earnings, job quality and future job stability. Even if hourly wages are unchanged, if displaced workers are re-employed in jobs with fewer hours of work, they will experience a drop in total earnings. In some cases, a reduction in hours after displacement may be desirable, but in others, workers may be underemployed and prefer to work longer hours. Likewise, if displaced workers are hired in jobs with temporary contracts or set up their own businesses after displacement, then their future displacement risk may also be increased. These effects could potentially have an effect on workers' welfare as important as that caused by earnings losses. Nevertheless, and with notable exceptions that are discussed below, the existing literature is relatively sparse when it comes to evidence of the impact of displacement on working hours and job security.

Farber (1999) finds that displaced workers in the United States, especially those who were previously employed full-time, are more likely to involuntarily work part-time after job loss, but that the likelihood of part-time work falls over time. Involuntary part-time work after displacement is more common and persistent for those with low levels of education and for older workers. Farber (1999) also finds that US job losers who find work are more likely than non-job-losers to have a temporary or part-time contract and less likely to be running their own small business. Von Greiff (2009) finds that Swedish workers have a higher probability of entering self-employment than those who were not displaced. People who become self-employed after displacement tend to be those with the poorest labour market prospects, while people who enter self-employment from employment are typically high-ability or high-wealth individuals. While not looking directly at contract type, Stevens (1995) finds that displaced workers face an increased risk of losing their job again in the future.

Figure 4.10. **Earnings changes before and after displacement by education level**[a]

Percentage of pre-displacement earnings




DY: Displacement year.

a) Pre-displacement earnings is average earnings in the year prior to displacement (-1 in the figure). *Low:* less than secondary education; *Medium:* secondary education; *High:* post-secondary education. See Annex 4.A1 for a full description of the samples, years and definitions used for each country. Data refer to annual earnings for Denmark, Finland, Portugal and Sweden and monthly earnings for Germany.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

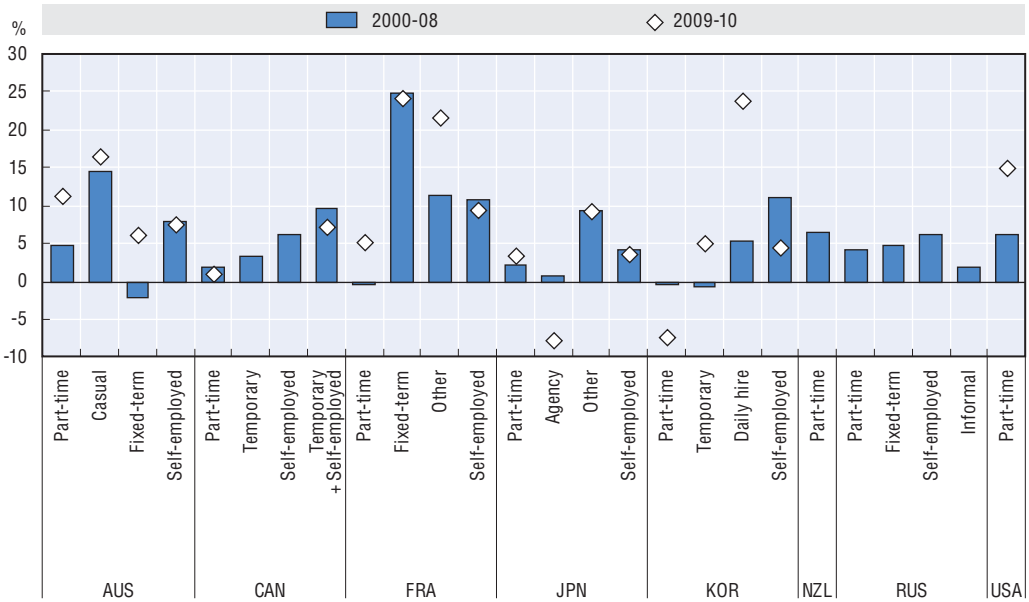
StatLink http://dx.doi.org/10.1787/888932853150

Figure 4.11 shows that, with the exception of Korea (and France prior to 2009), the incidence of part-time work tends to increase after displacement in the countries for which data are available. Displaced workers who are re-employed within one year work, on average, up to two hours less per week than before displacement and are less likely to be employed full-time. Hours reductions tended to be larger during the Great Recession than in the years that preceded it, although many non-displaced workers probably also experienced a reduction in hours during the recession due to the operation of short-time work and working-time account schemes as well as reductions in overtime hours (see OECD, 2010, for a discussion of hours adjustment strategies during the Great Recession).

In almost all cases, the incidence of non-standard types of work also increases after displacement.[15] Casual contracts in Australia and fixed-term contracts in France appear to be particularly common after displacement. In the case of Australia, the incidence of casual work after displacement falls in subsequent years, but is still higher than the pre-displacement incidence two years after displacement. Self-employment is also

Figure 4.11. **Changes in working hours, job security and form of employment after displacement**[a, b]

Percentage-point changes in employment shares between the pre- and post-displacement jobs[c]




*a)* Data on hours and contract type after displacement are only available for countries using data on self-defined displacement. Part-time is defined as working less than 30 hours per week in all countries except the United States, where it is defined as less than 35 hours per week and Japan, where it is defined using national definitions.

*b)* Canada: Separate data for temporary and self-employed after displacement are not available for 2009-10. France: *Other* includes seasonal and interim contracts. Japan: *Agency* refers to temporary employees dispatched from an agency; *Other* includes contract employees. Russian Federation: *Informal* refers to employees without a written employment contract.

*c)* Sample restricted to workers re-employed within one year of displacement.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853169

relatively common after displacement, accounting for around 5-10% of re-employed workers. During the Great Recession, the likelihood of non-standard contract types after displacement increased in several countries, but the incidence of self-employment was unchanged from previous years. This may be because of a lack of opportunities for starting a new business during a downturn, or because the characteristics of those who were displaced during the recession were different to those of people who were displaced in better economic circumstances (see Section 2).

These results suggest that, in addition to providing lower earnings, post-displacement jobs tend to be "worse" than pre-displacement jobs along a number of other dimensions, even if the job characteristics considered do not account for all aspects of job quality. A fuller examination of the impact of displacement on job quality is limited by the availability of data. Many of the data sources used to study displacement do not contain information on a large number of working arrangements, non-pecuniary job benefits or subjective measures such as job satisfaction. However, preliminary results using data for a small number of countries suggest that displacement may have a negative impact on working arrangements other than part-time working, particularly job benefits that tend to be accumulated with tenure (see Box 4.2). The analysis in this section is somewhat limited because it does not take into account what would have happened to job quality in the absence of displacement, nor

### Box 4.2. **Broader measures of job quality after displacement**

Many job benefits, including job security and non-wage benefits, accumulate with tenure. Interruptions to job tenure as a result of displacement may therefore lead to a reduction in the quality of jobs along multiple dimensions. As a first step towards a better understanding of the full impact of displacement on job quality, the incidence of various types of job benefits changes after displacement is explored in more detail for three countries (Australia, France and Korea).

Very few existing studies examine aspects of job quality beyond earnings, hours or job security. Brand (2006) provides the most comprehensive examination of job benefits and characteristics in the United States. She finds that displaced workers have lower levels of occupational status, job authority/autonomy and employer-provided pension and health insurance than in their pre-displacement jobs. The biggest losses in employer-provided benefits are found for less-educated, blue-collar and manufacturing workers, while more highly educated workers experience significant losses of occupational status, job autonomy and job authority. Several other authors have examined entitlement to health insurance in the United States, most finding that workers have a high probability of losing their health insurance coverage after displacement (Brand, 2006; Couch, 1998; Olsen, 1992; Podgursky and Swaim, 1987).

The figure below shows how the incidence of certain working arrangements and job benefits changes after displacement in the three countries included in this analysis. The incidence of entitlement to paid holiday and sick leave is lower in Australia and Korea and the number of days of paid holiday leave is smaller in France after displacement. The large negative impact of displacement on the incidence of paid leave in Australia is in large part due to the higher incidence of casual working arrangements after displacement (see previous section), as casual employees tend to have no access to paid leave arrangements. In Korea (for sick leave) and Australia, the incidence of leave improves after two years, but is still below the pre-displacement incidence.

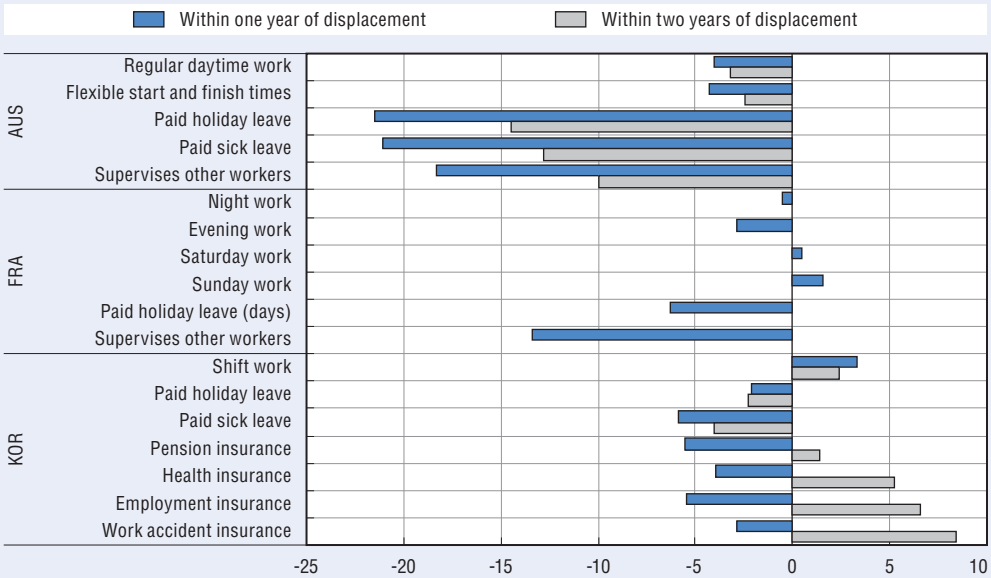
Workers in Korea have lower coverage by the major types of social insurance in the year after displacement than before. However, these effects appear to be relatively short-lived, at least in the period studied here. One of the reasons that social insurance coverage may be higher in the post-displacement job two years after displacement is that social insurance coverage for the population as a whole was increasing during this period (OECD, 2013). It would be interesting to adopt a difference-in-differences approach to measure the true cost of displacement for job benefits, similar to that used in the previous section to estimate earnings losses. However, the sample size of displaced workers in the datasets used is too small to produce reliable estimates. There is also some evidence that working-time arrangements are less favourable after displacement. In Australia, displaced workers are less likely to have regular daytime schedules and flexible start and finish times after displacement, while in Korea, shift work is more common. In France, there is little difference in the incidence of work at non-standard times after displacement, with a slight increase in the likelihood of work on Sundays and even a decrease in the incidence of evening work. However, once various worker and job characteristics (such as occupation and industry) are controlled for, workers have a significantly higher probability of work at non-standard times after displacement than before.

Finally, in terms of job duties, displaced workers in France and Australia are less likely to have supervisory responsibilities after displacement.

Box 4.2. **Broader measures of job quality after displacement** *(cont.)*

**Changes in the incidence of selected working arrangements and job benefits after displacement in Australia, France and Korea**[a]

Post-displacement incidence less pre-displacement incidence for displaced workers who are re-employed within one or two years (percentage points)




*a)* No data are available on working arrangements two years after displacement for France.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853302

does it determine how persistent the observed negative effects are. Nevertheless, it suggests that future examination of the impact of job displacement should include some consideration of the effects on job characteristics other than earnings.

## 5. The consequences of job displacement for skill use

Many researchers have speculated that wage losses after displacement can be attributed to the loss of industry-specific or occupation-specific human capital. This is mostly based on evidence that re-employed displaced workers who change industry and/or occupation suffer greater losses than those who do not. Another possibility is that wage losses following displacement are explained by human capital depreciation during the unemployment or inactivity spells that often follow displacement. All these explanations point to the importance of changes in human capital in explaining the effect of displacement on wages.

This section goes beyond the use of changes in industry or occupation as proxy measures of the loss of specific human capital to study more directly changes in skills use as a result of displacement. In doing so, the actual extent of human capital loss[16] following displacement can be examined and those losses can be decomposed into more informative components. However, it is not possible to identify the source of human capital loss, i.e. whether the loss originates from the depreciation of human capital during unemployment or inactivity or from the difficulty of finding a job that uses existing skills optimally. In fact, because the skills analysis exploits information on the use of skills at work, supply and demand factors are confounded.

Very few existing studies have looked at changes in skills use between jobs following displacement. Polatev and Robinson (2008) analyse human capital specificity in the context of job changes following displacement. They identify four basic skills to characterise skill portfolios for each occupation and construct measures of distance between the portfolios. They find that wage losses following displacement in the United States are more closely associated with switching skill portfolios than switching industry or occupation *per se*, and that switches cause large decreases in the skill portfolio in the post-displacement job. Similarly, Gendron (2011) finds that involuntary occupational movers suffer a wage penalty which increases with the distance in terms of skills requirements between the previous and new occupation.

In addition, a small but growing literature focuses on changes in skill requirements as workers transfer between jobs (not necessarily as the result of displacement) to test the specificity of human capital (Lazear, 2003, Regula and Backes-Gellner, 2009; Kambourov and Manovskii, 2009; Gathman and Schonberg, 2010; and Nedelkoska and Neffke, 2011). Papers in this literature use US or German data on tasks carried out at work to measure the distance between jobs in terms of skills requirements rather than relying on inferences based solely on changes in occupations or sectors. Overall, the findings suggest that: skills are more portable than previously thought based on studies of occupational and sectoral mobility; individuals tend to move to occupations with similar task requirements; and the distance of moves declines with experience. Nedelkoska and Neffke (2011) also find that workers moving directly between jobs are more likely to move to jobs that minimise human capital loss while those experiencing unemployment between two jobs tend to move to occupations where human capital loss is larger, presumably because they are forced to change jobs.

### *Measuring changes in skill use following displacement*

Available data on displacement do not contain direct measures of skill use. Therefore, in order to study skill use and how it changes following displacement, this chapter uses data on occupations before and after displacement linked with detailed information on skill requirements by occupation (see Box 4.3). Each occupation is associated with measures of required maths, verbal, cognitive, interpersonal, craft, and gross and fine physical skills and a measure of the number of years of education required. Once skill requirements are attached to each occupation, comparisons between occupations before and after displacement are relatively straightforward. Changes in required education between two jobs are expressed in years. However, because the other skill requirements are standardised to have mean zero and standard deviation of one, changes in these cases are expressed in units of a standard deviation.

In addition to looking at changes in the use of individual skills, this chapter presents a measure of the overall distance between occupations in terms of skill use, very similar to the one developed by Polatev and Robinson (2008). This makes it possible to determine whether individuals who change occupations move to completely different jobs or to jobs that require similar skills. To measure this distance, skill requirements are ranked based on their intensity of use in each occupation, where changes in ranking and/or intensity of use are used to determine whether individuals have moved to an occupation associated with very different skill requirements compared to their pre-displacement job – so-called *skill switchers* – or to a similar occupation – so-called *skill stayers*. Skill switchers are then further classified as upgrading – if they move to jobs requiring at least one more year of education – or downgrading – if they move to jobs requiring at least one year fewer of education (see Box 4.3 for more details).

## Box 4.3. **Measuring skills used at work**

With existing data sources, it is not possible to directly measure the skills that displaced workers use in their pre- and post-displacement jobs. Instead, this chapter uses detailed information on the skills required for different occupations derived from the United States Occupational Information Network (O*NET) survey. The skill measures are then matched with data on the occupations of displaced workers to examine how skill requirements change after displacement.[a]

O*NET is a labour market information tool intended to facilitate matches between jobseekers and employers. The database contains numerical ratings at a detailed occupation level for 239 job characteristics, based mostly on responses to surveys of large representative samples of workers, as well as some job analyst ratings of certain job characteristics. While O*NET relates to occupations in the United States, Handel (2012) finds there is substantial consistency in occupational skill scores across countries and substantial agreement across different skill databases.

This chapter uses the first complete version of O*NET, released in mid-2008, to obtain nine skill requirements by occupation and match this information to country-specific data on displacement. Cronbach's Alpha, a statistical technique, is used to test that the items used to derive skill requirements are grouped appropriately (Handel, 2012). The derived skill requirements include seven composite measures of mathematics, verbal, cognitive, interpersonal, craft, and gross and fine physical skills (see the table below). All composite measures are standardised to have a mean of zero and a standard deviation of one. In addition, a measure of required education is also derived and is expressed as years of education needed to be newly hired in a given occupation. Occupations are classified using the International Standard Classification of Occupations (ISCO, 1998) at the two-digit level. Where necessary, national classifications are converted into ISCO 1998 as feasible and appropriate. As each occupational code is assigned a score for each of the seven skill requirements listed above, it is possible to calculate how a change in occupation following displacement translates into a change in skills use.

### Skill requirements: O*NET items[a]

Detailed items used to derive skill requirements

| |
|---|
| **Required education:** years of schooling required to be hired for a job, recoded from level of education. |
| **Maths requirements:** 1) mathematics skills; 2) mathematics knowledge; 3) mathematical reasoning; 4) number facility ($\alpha$ = 0.92). |
| **Verbal requirements:** 1) reading comprehension; 2) writing skills; 3) writing comprehension; 4) writing ability; 5) knowledge of English language rules (spelling, grammar, composition); 6) frequency of using written letters and memos ($\alpha$ = 0.95). |
| **General cognitive demands:** 1) analytical thinking; 2) critical thinking; 3) complex problem solving; 4) active learning; 5) analysing data or information; 6) processing information; 7) thinking creatively; 8) updating and using relevant knowledge; 9) deductive reasoning; 10) inductive reasoning; 11) fluency of ideas; 12) category flexibility ($\alpha$ = 0.97). |
| **Interpersonal skills:** 1) persuasion; 2) negotiation; 3) speaking skills; 4) frequency of face-to-face discussions; 5) frequency of public speaking; 6) communicating with persons outside organisation; 7) dealing with external customers or public; 8) performing for or working directly with the public; 9) customer and personal service knowledge; 10) service orientation; 11) dealing with angry people; 12) dealing with physically aggressive people; 13) frequency of conflict situations; 14) resolving conflicts and negotiating with others; 15) instructing skills; 16) training and teaching others; 17) education and training knowledge; 18) interpreting the meaning of information for others; 19) social orientation; 20) social perceptiveness ($\alpha$ = 0.94). |
| **Craft skills:** 1) controlling machines and processes; 2) repairing and maintaining mechanical equipment; 3) repairing and maintaining electronic equipment; 4) equipment maintenance; 5) repairing machines; 6) troubleshooting operating errors; 7) installing equipment, machines, and wiring ($\alpha$ = 0.95). |
| **Gross physical requirements:** 1) handling and moving objects; 2) general physical activities; 3) static strength; 4) dynamic strength; 5) trunk strength; 6) stamina; and time spent; 7) sitting; 8) standing; 9) walking; 10) twisting body; 11) kneeling, crouching, stooping, or crawling ($\alpha$ = 0.98). |
| **Fine physical requirements:** 1) handling, controlling or feeling objects and tools; 2) operating vehicles, mechanised devices or equipment; 3) arm and hand steadiness; 4) manual dexterity; 5) finger dexterity; 6) multi-limb co-ordination; 7) rate control ($\alpha$ = 0.95). |

*a)* Cronbach's Alpha calculated from employment data by occupation; for 1992 from the US Current Population Survey. Questionnaires available at *onetcenter.org/questionnaires.html*.

Box 4.3. **Measuring skills used at work** *(cont.)*

In this chapter, changes in skills use are summarised by the average change in the score of each skill requirement across individuals and for specific socio-demographic groups. In addition, three measures of global distance between jobs based on composite skill requirements are constructed. These measures use information on changes in the ranking of skills requirements based on their scores and on changes in the scores of the main skills requirements, excluding required education.[b] The three measures of skills-set switching are defined as follows:

- *Switch measure 1* – Change in ranking of top skill factor: A worker is defined as having switched skills set if the main skill requirement before the occupational change moved down by at least two positions. For example, if verbal skills had the highest score in the pre-displacement job but were only the third ranked skills in the post-displacement job, then the worker is said to have switched skills set.
- *Switch measure 2* – Change in ranking and size of top skill factor: A worker is defined as having switched skills set if the main skill requirement based on its score before the occupational change moved down by at least two positions and its score changed by at least half of a standard deviation. For example, if verbal skills had the highest score in the pre-displacement job but were only the third ranked skills in the post-displacement job *and* the score for verbal skills changed by at least half a standard deviation, then the worker is said to have switched skills set.
- *Switch measure 3* – Change in size of top three skill factors: A worker is defined as having switched skills set if the top three skill requirements based on their score before the occupational change all changed by at least half of a standard deviation. For example, if verbal, mathematics and cognitive skills were the top three skills in the pre-displacement job, but the score for each of these skills changed by at least half a standard deviation in the post-displacement job, then the worker is said to have switched skills set.

Finally, skill switches that are accompanied by an increase in required education of at least one year are classified as "skills upgrading" while those associated to a decrease in required education of at least one year are called "skills downgrading". Changes in required education are used to discriminate between skill switch types because required education does not enter in the definition of the switch measures and because it is a relatively objective measure of job "complexity".

This approach has the advantage of looking at skills use changes directly rather than approximating them with occupational (or sectoral) changes. However, also it also has limits. Notably, it assumes that jobs described by the same occupational code have the same skill requirements, i.e. occupation change is a necessary but not sufficient condition to detect changes in skills use. It also assumes that occupations have been coded correctly. If the coding of occupations is different over time, spurious occupational and skill changes may be identified.

*a)* It is noteworthy that most papers in the literature derive skill requirements from the Dictionary of Occupational Titles, the precursor to O*NET.

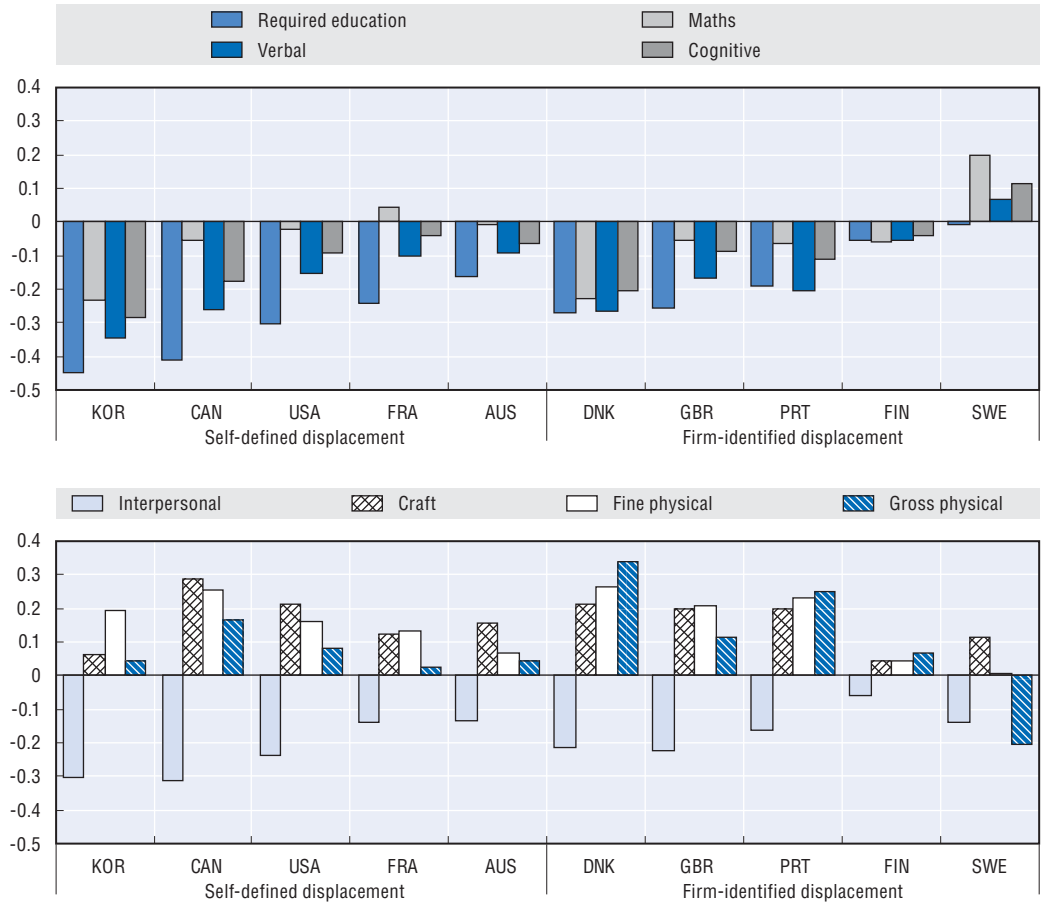
*b)* Required education cannot be included because its metric is different from that used in the other skills requirements, which makes ranking and level comparison impossible. On the other hand, required education can be used at a later stage to discriminate between negative and positive switches.

### *Portable skills and re-employment chances*

Displaced workers differ quite markedly from the average employee in terms of the skills they use in their pre-displacement job. On the one hand, with few exceptions, displaced workers use less mathematics, verbal, cognitive and interpersonal skills in their pre-displacement jobs than the average employee and are in jobs with lower-than-average educational requirements (Figure 4.12). This is not the case in Sweden due to the composition of displaced workers, particularly during the first half of the 2000s. Over that period, displacement affected mostly white-collar employees in highly paid jobs with high education requirements. On the other hand, displaced workers tend to use more craft and physical skills than on average for all employees.[17]

Figure 4.12. **Skill use before displacement, 2000-10**[a]

Difference in pre-displacement skill use between displaced workers and all employees
(units of a standard deviation)




*a)* Skill requirements are measured by indices with mean zero and unit standard deviation (see Box 4.3). This figure reports the difference in skill requirements between displaced workers and all employees.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853188

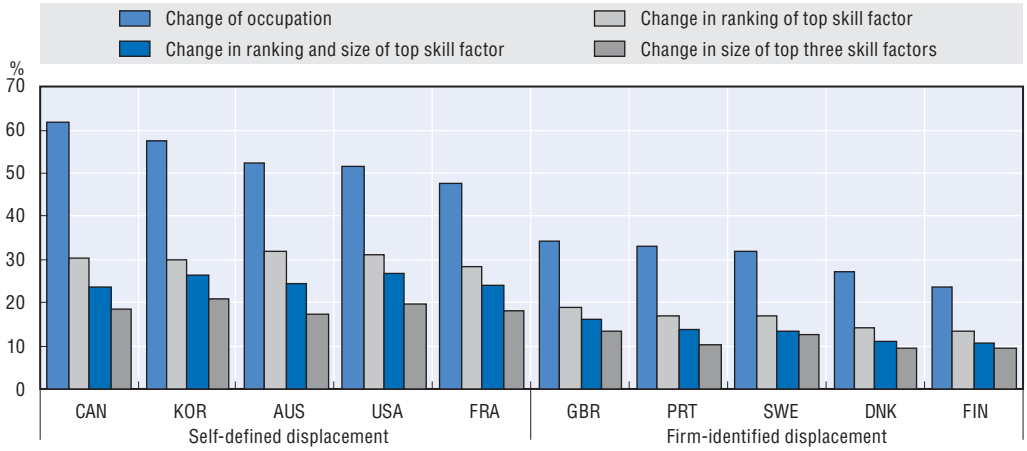
These results do not bode well for the re-employment chances of displaced workers in light of the growing demand for the types of skills they appear to be lacking (or, more precisely, were not required to use in their former job) and also highlight why they have a greater probability of displacement in the first place. Handel (2012) shows rising demand for cognitive, verbal and interpersonal skills, as well as declining demand for craft and physical skills in both the United States and Europe since the 1990s. While this finding is based on changes in occupational shares,[18] the author also studies overall changes in skill requirements – confounding between and within occupation effects – and finds that jobs in Denmark, Germany, Finland and Portugal were substantially more likely to involve complex tasks in 2005 than a decade earlier.[19]

### *Occupational changes and changes in skill requirements after displacement*

Among displaced workers who find work within one year, many change occupation following displacement. However, far fewer move to occupations with very different skill requirements. Figure 4.13 shows that occupational changes following displacement are very frequent, with between one-quarter and half of workers changing occupations in the

Figure 4.13. **Changes in occupation and skills set after displacement, 2000-10**

Percentage of displaced workers who change occupation[a] and skills set[b]




*a)* Occupation is defined at the ISCO-88 two-digit level, with the exceptions of Canada and the United States where it is defined using the US Census Occupational Classification at the three- and two-digit levels, respectively.

*b)* For skills set changes, the ranking of the top factor is considered to have changed if it has fallen by at least two positions and only changes in skill factor sizes of at least half a standard deviation are considered (see Box 4.3).

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853207

countries for which data are available.[20] It is interesting to note that the share of workers shifting occupations and skills is higher, on average, in countries where displacement is self-defined than in countries where it is firm-identified. This may be due to differences in the way that occupations are coded in survey and administrative data (with coding error likely to be greater in the former than the latter) or because workers displaced due to firm closure or mass dismissal have different characteristics or re-employment prospects than those displaced individually. Unfortunately, it is not possible to determine which definition yields the most accurate measure of occupation and skill changes. These limitations should be kept in mind when comparing levels across countries in the remainder of this section.

If human capital is completely occupation-specific, widespread occupational changes suggest very sizeable skill losses following displacement. However, it is likely that many skills are useful in a range of occupations. Indeed, many workers appear to change occupation but continue to use similar skills. Figure 4.13 also shows three alternative measures of skills switching. All three skills-related measures – based on changes in the ranking of key skill requirements as well as changes in the intensity with which key skills are required – show significantly fewer switches than occupational changes. For instance, in Canada, while 60% of workers change occupation after displacement, only 20-30% of workers switch skills. Similar patterns are observed in other countries: two to three times as many workers change occupation as experience skill switches.[21]

Many workers change industry, instead of or as well as occupation, after displacement. Those who change industry are about twice as likely to change occupation as those that are re-employed in the same industry. However, with the exception of Korea, there is no evidence that changes in occupation between two different industries are more likely to lead to skill switches than changes in occupation within the same industry.[22] Overall, the evidence presented above shows that displacement results in a sizeable share of workers moving to jobs with significantly different skills requirements, which is a potential source of post-displacement wage losses. However, not all industry and occupational moves lead to a

significant change in the skills used at work. As will be shown below, changes in skill sets play a clear role in explaining earnings losses after displacement, even after accounting for changes in industry.

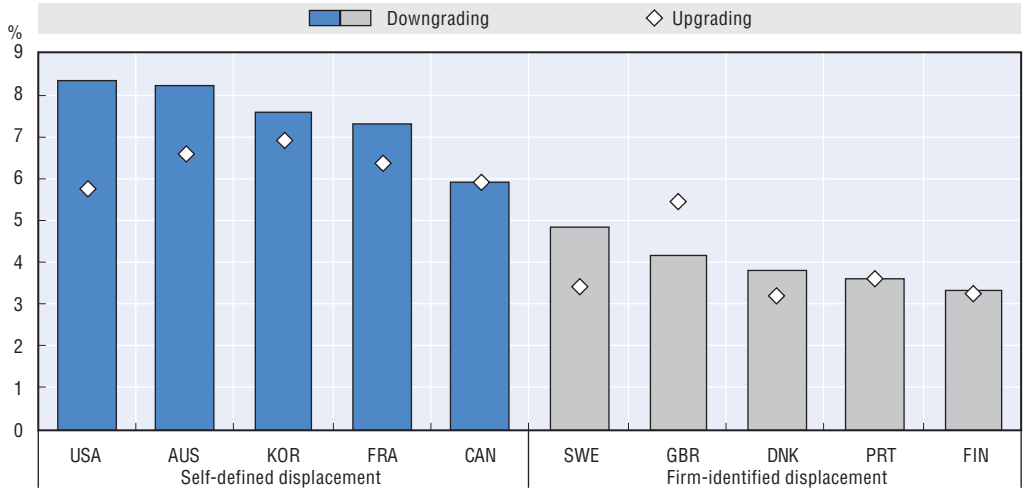
### *Professional downgrading following displacement*

Not all skill switches imply a negative outcome. Some displaced workers who are re-employed in occupations with different skill requirements move to jobs with higher skill requirements than those from which they were displaced. As a result, it is important to isolate negative skill switches from positive or neutral ones. One way to do so is to use the change in the years of education required at work as a result of displacement, under the assumption that an increase in required education is a signal that the person has moved up the career ladder while a negative change points to a move to a lower-level job.[23] Figure 4.14 shows the share of displaced workers who experience a skill switch[24] accompanied by a fall in required years of education of at least one year, referred to below as *professional downgrading*, or a skill switch accompanied by an increase in required years of education of at least one year, referred to below as *professional upgrading*. Roughly 3-8% of displaced workers experience professional downgrading, while slightly fewer, on average, experience professional upgrading. While the estimates vary considerably across countries, again it should be noted that the cross-country differences appear to be driven in part by the data source and/or definition of displacement used, so cross-country estimates should be made with caution.

While not all displaced workers suffer human capital losses, for a small sub-group the losses are likely to be sizeable. Figure 4.15 presents average changes in skills use following displacement for all displaced workers and for the subgroup who suffered professional

Figure 4.14. **Incidence of professional upgrading and downgrading following displacement, 2000-10**[a]

Percentage of re-employed displaced workers



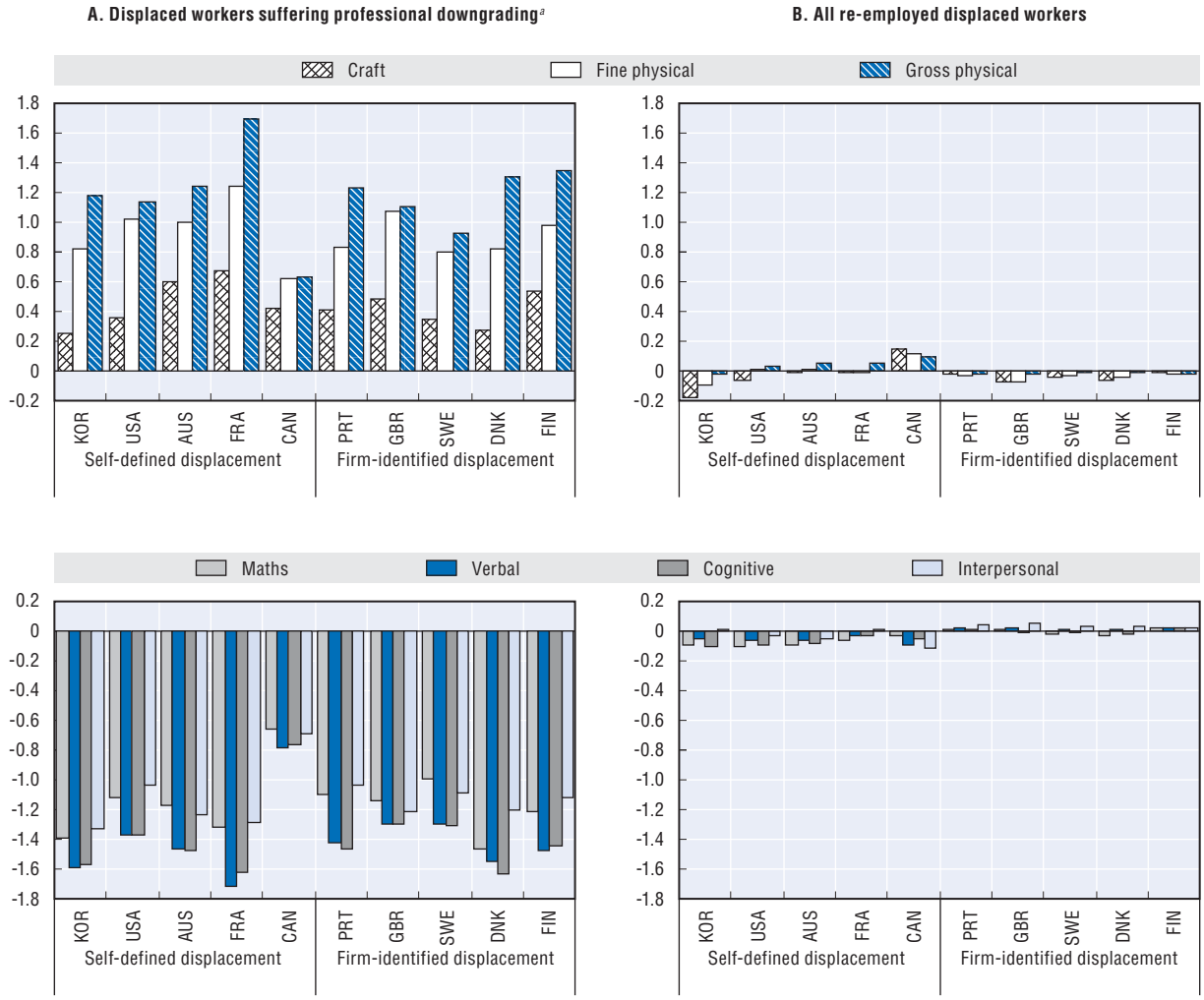

*a)* Professional downgrading is defined as a skill switch (based on switch measure 2, see Box 4.3) accompanied by a fall in required years of education of at least one year; professional upgrading is defined as a skill switch accompanied by an increase in required years of education of at least one year.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853226

Figure 4.15. **Human capital loss following displacement, 2000-10**

Average change in each skill factor (units of a standard deviation)




*a)* Professional downgrading is defined as a skill switch (based on switch measure 2, see Box 4.3) accompanied by a fall in required years of education of at least one year.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853245

downgrading. Average changes in skill use are close to zero when looking at all displaced workers. However, displaced workers who suffer professional downgrading experience significant losses in math, verbal, cognitive and interpersonal skills, modest gains in the use of craft skills and significant increases in the use of physical skills. These patterns are very consistent across countries.

### *Changes in skill requirements: Who is most affected?*

Figure 4.16 shows the share of displaced workers who experience a skill switch by gender, age, education level and whether or not they also change industry. It also shows the nature of the switch – whether it is neutral or involves professional upgrading or downgrading. There is little difference in the overall incidence of skill switches between men and women, with the exceptions of France and Korea, where men are markedly more likely to experience changes in skill requirements than women, and in Canada where the

Figure 4.16. **Skill switches,[a] by nature of the switch and socio-demographic characteristics,[b] 2000-10**

Percentages

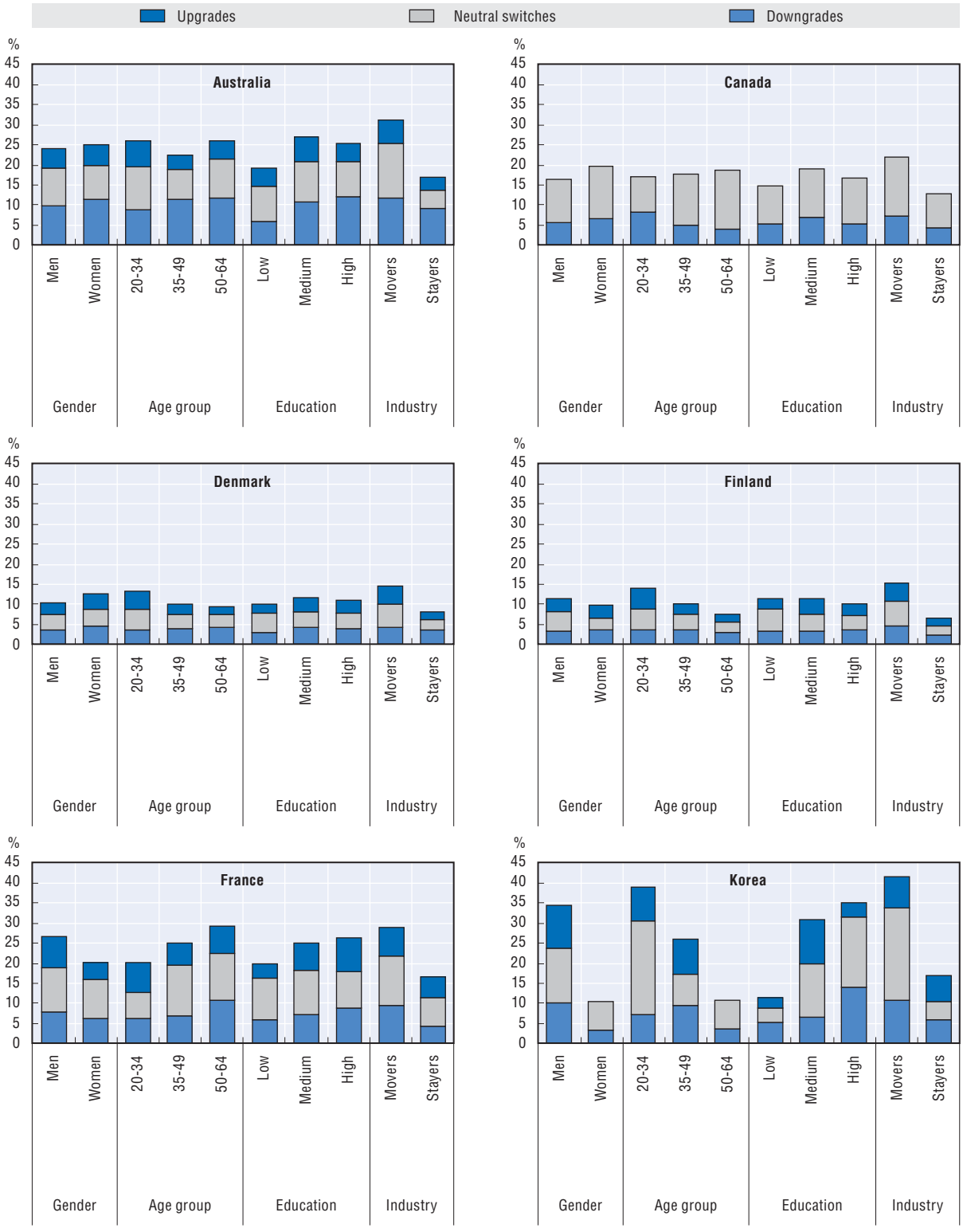
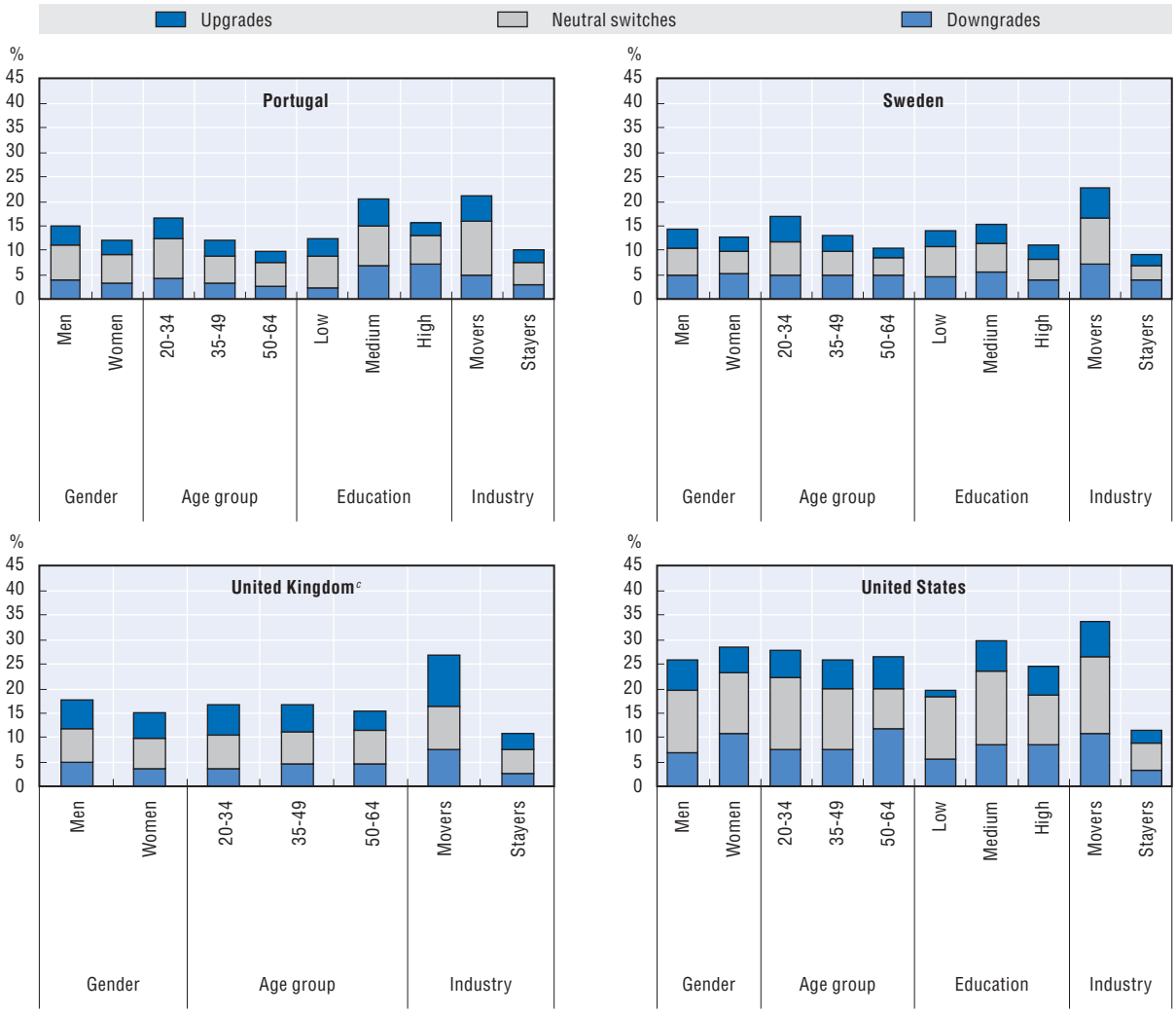


Figure 4.16. **Skill switches,[a] by nature of the switch and socio-demographic characteristics,[b] 2000-10** *(cont.)*

Percentages




*a)* All skills switches are based on switch measure 2. Professional downgrading (upgrading) is defined as a skill switch accompanied by a fall (rise) in required years of education of at least one year; the remainder of the skill switches are defined as neutral (see Box 4.3).
*b)* For education: *Low:* less than secondary education; *Medium:* secondary education; *High:* post-secondary education.
*c)* No data on education for the United Kingdom.
*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853264

opposite is true. In many countries, women switching to occupations with very different skill requirements are more likely to experience professional downgrading than men following displacement. However, in Canada, Denmark and Finland, women are also more likely to experience professional upgrading than their male counterparts.

With some exceptions – Australia and France – the likelihood of skill switches is lower for older workers than for youth, probably reflecting a mixture of supply and demand factors: older and more experienced workers may be less willing to move to a job with very different skill requirement or may face larger implicit opportunity costs while for some youth, a move away from the skill requirements of their pre-displacement job may even be desirable. On the demand side, employers may be less willing to offer older workers a job

in which they have limited experience as they may be perceived as less adaptable. Among skill-switchers, professional downgrading tends to be rarest among the youngest workers, possibly because youth are more likely to take advantage of displacement for positive career moves (or more likely to have been in low-level jobs in the first place).

Across qualification levels, the likelihood of changes in skill requirements takes an inverted U shape, with upper-secondary graduates being the most likely to move away from the skill content of their pre-displacement job.[25] This could be explained by the fact that upper-secondary graduates may have both the skills and willingness to move to a job with very different skill requirements. In fact, the limited mobility of the low-educated could be due to their less portable skills (or lower capacity to adapt to new skill requirements) while tertiary graduates with more portable skills may be less willing to leave their main field of work at the risk of suffering wage penalties. In most countries, the incidence of professional downgrading among skill switchers tends to be higher among middle- and high-educated workers.[26]

Finally, switches in skill requirements are more likely among industry movers than industry stayers in all the countries examined. As mentioned above, this is related to the fact that occupational changes are more frequent among industry movers rather than to the fact the type of occupational changes that happen more frequently in conjunction with industry changes are more likely to give rise to changes in skill requirements. However, in all countries except France and the United States, industry stayers experience more dramatic skill moves – more professional downgrading and upgrading and fewer neutral switches – than industry movers.

### *Can skills switches explain post-displacement earnings losses?*

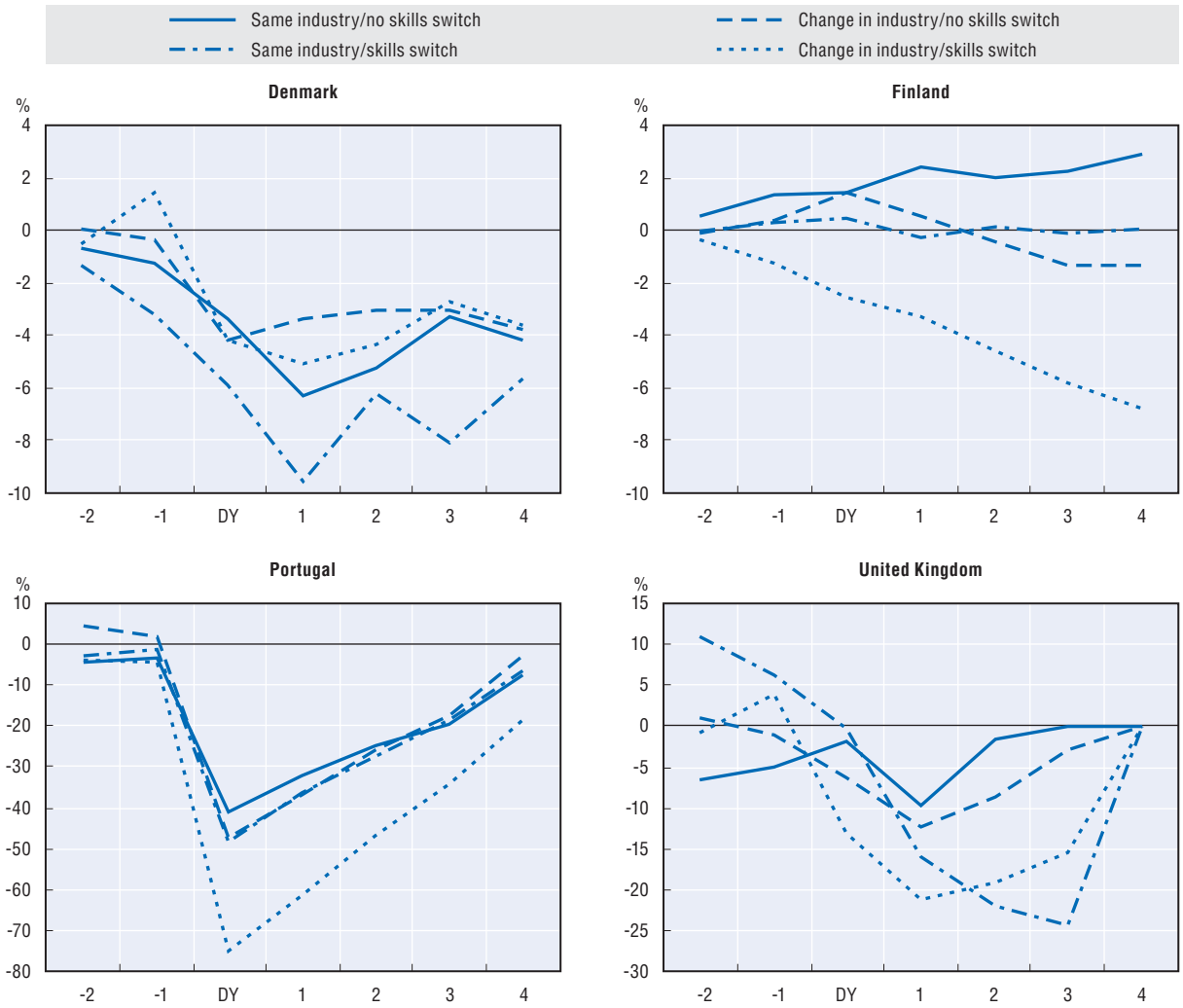
To assess the relative importance of skill specificities and industry-specific human capital in explaining wage/earnings losses after displacement, the earnings estimates presented in Section 4 are reproduced by industry/skill change status for four countries: Denmark, Finland, Portugal and the United Kingdom. The crucial role played by changes in skills set emerges in all countries. In fact, workers who experience no change in skills set, with or without a change in industry, tend to experience the lowest earnings penalties following displacement (Figure 4.17). However, if changes in skills set were all that mattered in explaining earnings losses, the outcomes of workers experiencing a skills switch but no industry change would be very similar to the outcomes of those for whom the skills switch is accompanied by an industry move.[27] This hypothesis is not supported by the data presented in Figure 4.17. In Portugal and Finland, the effect of skill-switching appears to be magnified by industry moves. In Denmark, the largest losses are for those who switch skill-sets within the same industry (although these effects are only statistically different from zero in the first two years following displacement).

## Conclusions

This chapter provides new and more extensive evidence of job displacement and its consequences for a large number of countries. Despite significant differences in the available data, the analysis highlights many similarities across countries in the types of workers most at risk of displacement and those who find it most difficult to return to work afterwards. The innovative analysis of skill use after displacement also sheds new light on some of the barriers to re-employment and drivers of earnings losses after displacement.

Figure 4.17. **Earnings changes before and after displacement by skill-switch and industry-move status**[a]

Percentage of pre-displacement earnings




DY: Displacement year.

*a)* Pre-displacement earnings is average earnings in the year prior to displacement (-1 in the figure). See Annex 4.A1 for a full description of the samples, years and definitions used for each country. Data refer to annual earnings for Denmark, Finland and Portugal and monthly earnings for the United Kingdom.

*Source:* Compiled by the OECD Secretariat using data sources described in Annex 4.A1.

StatLink http://dx.doi.org/10.1787/888932853283

The findings point to a number of policy-relevant issues that will need to be addressed in future work. *First*, the costs of displacement appear to be mainly due to non-employment spells, prompting the question of whether helping people return to work quickly should be made a priority to limit earnings losses and skill depreciation after displacement. If so, the findings in this chapter suggest the certain types of workers should be targeted if resources to help displaced workers are scarce. Women, older workers and the low-skilled are most likely to drop out of the labour force completely after displacement, and so should be encouraged to continue job search through appropriate activation measures. More generally, some workers are more prone to job displacement, and to negative consequences after displacement, than others. In particular, older workers

and those with low education levels have a higher displacement risk, take longer to get back into work and suffer greater (and more persistent) earnings losses in most countries examined. While youth also have a higher risk of displacement than prime-aged workers, they fare better afterwards. Young workers generally find work relatively quickly after displacement, often in jobs with greater skill requirements than their previous jobs.

*Second,* several OECD countries require firms, particularly large firms, to provide outplacement or retraining services to workers if they intend to make redundancies or mass layoffs. However, in all the countries examined, workers in the smallest firms have a much higher risk of displacement than those in larger firms. While the greater numbers of displaced workers involved in redundancies and mass layoffs by large firms may still justify the application of existing obligations on these firms, relying only on these types of measures may miss out on helping those most at risk of displacement. Future work should look at whether and how general active labour market programmes, such as job-search assistance and retraining programmes through public employment services, may be appropriate substitutes or complements to requiring (and possibly subsidising) outplacement services provided by firms, as part of an overall strategy to ensure that the workers most affected by displacement can be reached and receive the necessary support.

*Third,* the findings provide some insights into the amount and types of training that should be provided to displaced workers but further work is needed to identify clear policy directions. The majority of displaced workers probably do not need retraining to find a new, high-quality job. Even though many workers change industry or occupation after displacement, not all such moves lead to a significant change in the skills used at work. Indeed, even among displaced workers who use different skills in their new jobs, a number actually experience an upgrading in skill requirements. However, for a subset of displaced workers who experience professional downgrading – disproportionately women, older and mid-to-high-skilled workers – displacement brings in its train substantial human capital losses. These workers suffer a significant reduction in the use of mathematics, verbal and cognitive skills. This represents a pool of unutilised human capital and appears to be a significant factor behind the large wage losses experienced by displaced workers. In addition, there is evidence that many displaced workers may be unprepared to take up jobs in growing occupations as this group tends to lack key generic skills such as mathematics, verbal, cognitive and interpersonal skills that are increasingly in demand. These findings suggest that, where necessary, retraining programmes for displaced workers should focus on these key generic skills.

*Finally,* the chapter also highlights the limitations of available data for cross-country analyses. Despite going to great lengths to make the methodology and samples used comparable across countries, there remain substantial differences in the way the data were collected and the available variables to examine displacement. This means that it is unwise to make strong inferences from the cross-country estimates about the impact of policies and institutions on displacement, re-employment, and the earnings and skills effects of displacement. Further work is needed on these issues, but based on a micro-level analysis of how policies and institutions can best help displaced workers get back into good jobs quickly. This will be the focus of the second part of the OECD's work on displaced workers that will focus on a series of country-specific reviews of policies to help displaced workers, culminating in a synthesis report highlighting best-practice examples from participating countries.

## *Notes*

1. The results presented in this chapter were compiled from analyses undertaken by a network of researchers as well as the OECD Secretariat. The OECD Secretariat wishes to thank the following researchers for their contributions to the project: Benoit Delage and Marc Gendron from Human Resources and Skills Development Canada; Kent Eliasson and Pär Hansson from the Swedish Agency for Growth Policy Analysis; Anabela Carneiro from Porto University; Sylvia Dixon from the New Zealand Ministry of Business, Innovation and Employment; Arto Huh and Kristiina Huttunen from the Aalto School of Economics; Ryo Kambayashi from Hitotsubashi University; René Morissette from Statistics Canada; Pedro Portugal from the Bank of Portugal; Johannes Schmieder from Boston University; Fabian Slonimczyk from the Higher School of Economics, Moscow; Richard Upward from the University of Nottingham; Lars Vilhuber from Cornell University; Till von Wachter from the University of California Los Angeles; Niels Westergard-Nielsen and Simon Bodilsen from Aarhus University; Peter Wright from the University of Sheffield; and officials at the Japanese Ministry of Health, Labor and Welfare.
2. In the case of Sweden, the definition of displacement is based on establishments rather than firms. Using firms would lead to an over-estimation of displacement events due to frequent changes in firm identification numbers. To avoid this problem, other countries – notably Finland – have adjusted figures by excluding firm closure when 70% or more of employees are all found employed by a firm with a different identifier a year later.
3. While the thresholds used to identify mass dismissals are arbitrary, they are based on those used widely in the literature.
4. Dismissals for cause are included because in a number of the countries examined in this chapter it is not possible to distinguish between economic dismissal and dismissal for cause. Dismissals for cause tend to be a very small proportion of job displacements and are relatively stable over time. Preliminary analysis for the countries where these types of displacements could be identified separately shows that the inclusion of dismissals for cause does not appear to have a major impact on the results presented in the chapter.
5. While the downturn had already hit some countries in late 2008, 2008 is included in the pre-crisis period because it refers to displacements that occurred between 2007 and 2008, most of which were before the onset of the downturn. In fact, most countries experienced lower-than-average displacement rates in 2008.
6. As mentioned above (see endnote 2), figures for Sweden are derived using establishment level data rather than firm-size data. If firm-size data was used, without correcting for changes in firm's identifiers, the rate would be approximately double.
7. Results for Japan are not included in Table 4.1 as they cannot be produced on an internationally comparable basis using the Japanese Labor Force Survey, the survey used throughout this chapter. However, analysis carried out using the Employment Status Survey shows a similar picture as for the other countries included in Table 4.1. Women are more likely to be displaced than their male counterparts. The likelihood of displacement also increases with age, but declines with tenure, education and firm size. Non-regular workers are more likely overall to be displaced than their regular counterparts. However, the displacement rate is particularly low for temporary and daily employees, probably because very few workers in these types of jobs satisfy the one-year tenure threshold used to define displacement in this chapter.
8. Re-employment rates tend to stabilise within two years of displacement and are only marginally higher in the third and fourth year after displacement, so are not shown here.
9. Data on re-employment rates are available from two sources for the United States. As well as data from the Longitudinal Employer Household Dynamics (LEHD) Database used in the previous section to estimate displacement rates, data from the Displaced Worker Supplement (DWS) to the Current Population Survey can be used to estimate re-employment rates using a self-identified definition of displacement. On the other hand, the DWS cannot be used to calculate annual displacement rates on a base sample comparable to that specified in Section 1 of this chapter.
10. In this section, "earnings" refers to wage and salary income earned over a period of longer than one month (generally annual earnings) while "wages" refers to wage and salary income earned over a shorter period (either monthly, weekly, daily or hourly wages).
11. Annex 4.A2 is available online at *www.oecd.org/employment/outlook*.
12. Earnings losses due to non-employment may be offset, to some extent, by the receipt of unemployment benefits or other forms of social assistance. Hijzen et al. (2010) is one of the few studies to adjust income losses for unemployment benefit receipt while non-employed. They find

losses of 23% if displaced workers are assumed to receive the UK Jobseeker Allowance while non-employed and 27% if they are assumed to have zero benefits. The small difference between the estimated earnings effect including and excluding benefits probably reflects the low replacement rate of unemployment benefits in the United Kingdom and is likely to be much larger in countries with more generous benefits.

13. Losses in the Nordic countries appear to be higher in the year following displacement than in the displacement year itself. This appears to be because the way that annual earnings are measured means that most of the earnings reported in the displacement year refer to the pre-displacement job. For Germany, the estimated earnings effects are similar using annual and monthly earnings measures, suggesting that the observed difference in magnitude between the Nordic countries, on the one hand, and Portugal and the United Kingdom, on the other, are not purely due to measurement differences.

14. The estimates in Figure 4.9 only include people who have positive earnings in at least one year after displacement so those who retire completely after displacement are excluded from the analysis.

15. The sample examined includes only workers who were displaced due to economic reasons or for cause, not those who were displaced due to the end of a temporary contract (see Section 1 for a discussion). However, the broad increase in the incidence of non-standard forms of work on the post-displacement job is also observed if displacements due to the end of a temporary contract are also included in the sample.

16. The term "human capital loss" is employed here to indicate that skills previously used on the job are no longer needed and as a result are left idle or used to a lesser extent and may even deteriorate over time if the situation persists. Because there is a cost to accumulating human capital, private and public, the fact that acquired skills are left idle represents a loss. However, some qualifications are needed here. Individuals moving up the career ladder may no longer use certain skills but still benefit overall. As a result, when assessing human capital losses, this chapter will focus primarily on individuals experiencing career downgrading.

17. The differences shown are statistically significant at the 1% level with the exception of differences in the use of: craft (10%) and gross physical skills (not significant) in Korea; maths skills (not significant) in the United States; gross physical skills (not significant) in Australia.

18. The author uses O*NET to derive the skill requirements that are adopted in this chapter (capturing between-occupation differences), hence changes over time are due to changes in the composition of the labour force by occupation.

19. Note that the inverse is true in Sweden and the United Kingdom, while no information is available for the other countries included in this study.

20. Occupational changes are measured at the two-digit level using the 1988 International Standard Classification of Occupations (ISCO-88), except for Canada and the United States which use the US Census Occupational Classification at the three- and two-digit levels, respectively and the United Kingdom where changes in occupation are measured using ISCO-88 at the one-digit level.

21. Using occupational classifications at different levels of detail affects the share of workers recorded as changing occupation: for instance, the relatively high share of occupational changes in Canada may be due to the fact that the Canadian figure is based on a more detailed occupational classification than the other countries in Figure 4.13. On the other hand, using an occupational classification at the two-digit level does not appear to underestimate skill switching compared to using the same classification at the three-digit level, based on evidence from countries for which data are available at both levels. This is not surprising, as differences in skill requirements between three-digit occupations within two-digit groups are likely to be smaller than differences between two-digit groups. Hence, adding an additional digit-level is likely to increase switching but the marginal effect is probably small.

22. In Korea, workers who change occupation and industry are more likely to experience skill switches than those who change occupation within the same industry.

23. As detailed in Box 4.3, the measures of skills switching presented in Figure 4.13 are based on the ranking and changes in value of mathematics, verbal, cognitive, craft, interpersonal, gross physical and fine physical skills requirements. Because of measurement issues, required years of education are not included in the definition of skill switches, making them an ideal item to classify switches as bad or good. Changes in years of required education have the additional advantage of providing a simple objective measure of professional upgrading and downgrading.

24. Based on skill switch measure 2 in Box 4.3, whereby skill switches are defined as occupational moves that imply a change in ranking and size of the top skill factor.

25. The only exceptions to this pattern are Korea and France where the tertiary-educated are the most affected by skill switches.

26. This is partly by construction, as the least-educated workers are more likely to occupy jobs with very few years of required education to start with.

27. This assumes that all changes in the skills used at work can be accurately measured. As discussed in Box 4.3, skill switches are identified in this chapter using measures of generic, rather than job-specific, skills. To some extent, changes in industry may be a proxy for changes in job-specific skills that are not accurately captured in the skill-switch measures used in this chapter.

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# ANNEX 4.A1

## *Data sources and definitions*

| | Data source | Data type | Displacement years | Sample characteristics (in year prior to displacement) | Displacement definition |
|---|---|---|---|---|---|
| **Australia** | Household Income and Labour Dynamics in Australia (HILDA) survey[a] | Household panel | 2002-10 | Employees aged 20-64 years, single job holders with job tenure of at least one year excluding ISIC Rev. 3 groups L, O and Q[b] | Self-defined: layoff, no work available, retrenched or made redundant |
| **Canada** | Survey of Income and Labour Dynamics (SLID) | Household panel | 2000-10 | Employees aged 20-64 years, single job holders with tenure of at least 12 months excluding ISIC Rev. 3 groups L, O and Q (derived from NAICS 2007 concordance) | Self-defined: company moved or went out of business; layoff/business slowdown (not caused by seasonal conditions); dismissed by employer |
| **Denmark** | IDA Database | Matched employee-employer panel using administrative data | 1982-2009 | Private-sector employees aged 20-64 years, single job holders, with tenure of one year or more in firms with ten or more employees excluding ISIC Rev. 3 groups L, O and Q | Firm-identified: separation from a firm experiencing mass dismissal or firm closure[c] |
| **Finland** | Finnish Longitudinal Employer-Employee Database (FLEED) | Matched employee-employer panel using administrative data | 1989-2009 | Private-sector employees aged 20-64 years, single job holders, with tenure of one year or more in plants with ten or more employees excluding ISIC Rev. 3 groups L, O and Q | Firm-identified: separation from a plant experiencing mass dismissal or plant closure |
| **France** | *Enquête Emploi* (Labour Force Survey) | Labour force survey with six-quarter panel component | 2004-10 | Employees aged 20-64 years, single job holders with job tenure of at least one year excluding ISIC Rev. 3 groups L, O and Q | Self-defined: dismissal for economic reasons, firm closure due to bankruptcy or other reasons, and (since 2009) *rupture conventionnellle*[d] |
| **Germany** | IAB Database | Matched employee-employer panel using administrative data | 1980-2004 | Employees aged 20-64 years, single job holders, with tenure of one year or more in establishments with ten or more employees excluding ISIC Rev. 3 groups L, O and Q | Firm-identified: separation from an establishment experiencing mass dismissal or establishment closure |
| **Japan** | Labor Force Survey | Labour force survey with retrospective displacement questions | 2002-10 | Employees (including board members) aged 20-64 years excluding the equivalent of ISIC Rev. 3 groups L, O and Q. Note that it was not possible to exclude multiple job holders or employees with less than one year of tenure | Self-defined: separation due to bankruptcy and personnel cutbacks |
| **Korea** | Korean Labor and Income Panel Survey (KLIPS) | Household panel | 2000-09 | Employees aged 20-64 years, single job holders with job tenure of at least one year excluding ISIC Rev. 3 groups L, O and Q | Self-defined: bankruptcy, closure or shutdown of the business; made redundant/dismissed; dismissal for cause; involuntary separations due to lack of work |

| | Data source | Data type | Displacement years | Sample characteristics (in year prior to displacement) | Displacement definition |
|---|---|---|---|---|---|
| **New Zealand** | Survey of Families, Income and Employment (SoFIE) | Household panel | 2003-09 | Employees aged 20-64 years, single job holders with job tenure of at least one year excluding ISIC Rev. 3 groups L, O and Q | Self-defined: laid off/dismissed/made redundant |
| **Portugal** | *Quadros de Pessoal* Database | Matched employee-employer panel using administrative data | 1987-2009 (excluding 1990, 1991, 2001 and 2002) | Employees aged 20-64 years, single job holders, with tenure of at least 12 months in firms with ten or more employees excluding ISIC Rev. 3 groups L, O and Q | Firm-identified: separation from a firm experiencing mass dismissal or firm closure |
| **Russian Federation** | Displacement Supplement to the Russian Longitudinal Monitoring Survey[e] | Household panel with retrospective displacement questions | 2004-08 | Employees aged 20-64 years, single job holders with job tenure of at least one year excluding ISIC Rev. 3 groups L, O and Q | Self-defined: firm or organisation closed down, moved, re-organised, went bankrupt or was privatised; terminated by employer; laid off |
| **Sweden** | IFDB Database | Matched employee-employer panel using administrative data | 1991-2009 | Employees aged 20-64 years, with tenure of one year or more in establishments with ten or more employees excluding ISIC Rev. 3 groups L, O and Q. Note that it was not possible to exclude multiple job holders | Firm-identified: separation from an establishment experiencing mass dismissal or establishment closure |
| **United Kingdom** | Annual Survey of Hours and Earnings + Business Structure Database | Matched employee-employer panel using survey and administrative data | 2000-10 | Employees aged 20-64 years, with tenure of one year or more in establishments with ten or more employees excluding the equivalent of ISIC Rev. 3 groups L, O and Q. Note that it was not possible to exclude multiple job holders | Firm-identified: separation from a firm experiencing mass dismissal or firm closure |
| **United States** | Displaced worker supplement to the Current Population Survey | Labour force survey with retrospective displacement questions | 2000-10 (once every two years) | Employees aged 20-64 years, with tenure of one year or more excluding ISIC Rev. 3 groups L, O and Q. Note that it was not possible to exclude multiple job holders | Self-defined: plant or company closed down or moved; insufficient work; position or shift abolished |
| | Longitudinal Employer Household Dynamics (LEHD) Database | Matched employee-employer panel using administrative data | 2000-07 | Employees aged 20-64 years, single job holders with tenure of at least one year excluding federal government employees and state/local government employees working in the primary government sector | Firm-identified: separation from a firm experiencing mass dismissal or firm closure |

*a)* The HILDA Project was initiated and is funded by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this report, however, are those of the author and should not be attributed to either FaHCSIA or the Melbourne Institute.

*b)* International Standard Industrial Classification (ISIC) Revision 3 categories: L: *Public administration and defence; compulsory social security*; O: *Private households with employed persons*; and Q*: Extra-territorial organisations and bodies*.

*c)* Mass dismissal: firm/plant/establishment experienced an absolute reduction in employment of five employees or more *and* a relative reduction in employment of 30% of more. Firm/plant/establishment closure: Firm/plant/establishment ceased to operate.

*d)* *Rupture conventionnelle,* first introduced in 2008, allows termination of the contractual relationship between the employer and the employee through mutual agreement. In practice, many redundancies are completed through the *rupture conventionnelle*, because it is easier and less costly than the traditional *licenciement économique* (layoff for economic reason).

*e)* The Russian Longitudinal Monitoring Survey was conducted by HSE and ZAO "Demoscope" together with Carolina Population Center, University of North Carolina at Chapel Hill and the Institute of Sociology RAS.

*Source:* Author's compilation for the OECD.

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# *Statistical annex*

## Sources and definitions

The statistical annex tables show data for all 34 OECD countries. So far, data available for Brazil, the Russian Federation and South Africa are included in a number of tables.

In general, Tables A to J and Table L report annual averages of monthly and quarterly estimates, when they are available, based on labour force surveys. The remaining Tables K, M, N, O, P are based on a combination of survey and administrative sources. Data shown for a number of European countries in Tables B, C, D, H, I, J and Table L are taken from the European Labour Force Survey (EU-LFS), which are more comparable and sometimes more consistent over time than data series from national LFS (i.e. France).

Statistical tables showing data for Israel are supplemented with the following footnote: "The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law."

Data on employment, unemployment and the labour force are not necessarily the same as the series used for analyses and forecasting by the OECD Economics Department that are reported in the *OECD Economic Outlook* and included in a number of figures and tables of Chapter 1 of this publication.

Most of the statistics shown in these tables can also be found in the OECD central data repository *OECD.Stat* (*http://stats.oecd.org*) accessible from the web page dedicated to employment statistics (*www.oecd.org/employment/database*).

The database contains both raw data and derived statistics. It contains longer time series and more detailed datasets by age group, gender, educational attainment, part-time employment, temporary employment, duration of unemployment, and other series than are shown in this annex, such as, employee job tenure, involuntary part-time employment, distribution of employment by weekly usual hours worked intervals, inactive people marginally attached to the labour force, etc. The datasets include information on definitions, notes and sources used by member countries. The on-line database also contains additional series on working time, earnings and features of institutional and regulatory environments affecting the functioning of labour markets. Among these are the following:

- Annual hours worked for comparisons of trends over time.
- Average gross annual wages per full-time equivalent employee.
- Distribution of gross earnings of full-time workers by earnings decile and by sex for earnings dispersion measures.
- Gross mean and median earnings of full-time workers by age group and gender.
- Statutory minimum wages.

- Public expenditure on labour market programmes, number of beneficiaries and inflows into the labour market.
- Trade union density rates in OECD member countries.

## Conventional signs

.. Data not available.

. Decimal point.

| Break in series.

- Nil or less than half of the last digit used.

### Major breaks in series

Table A: Breaks in series have been adjusted in most countries to ensure that harmonised unemployment rates are consistent over time.

Tables B to J and Table L: Most of the breaks in series in the data shown in the tables occurred for any of the following reasons: changes in survey design, survey questionnaire, survey frequency and administration, revisions of data series based on updated population census results. These changes have affected the comparability over time of employment and/or unemployment levels and to a certain extent the ratios reported in the aforementioned tables:

- *Introduction of a continuous survey producing quarterly results:* Austria (2003/04), France (2002/03), Germany (2004/05), Hungary (2005/06, monthly results), Iceland (2002/03), Italy (2003/04) and Luxembourg (2002/03, quarterly results as of 2007).
- *Redesign of labour force survey:* Introduction of a new survey in Chile since April 2010 (see below), Germany (2010/11), Hungary (2002/03), Spain (2004/05) and Turkey (2004/05 from quarterly to monthly results). Israel (2011/12), change from quarterly to monthly survey results and a change from "civilian" to "total" labour force (including those who are in compulsory or permanent military service). New continuous quarterly survey in Mexico since 2005 (*Encuesta Nacional de Ocupación y Empleo*, ENOE) with a different questionnaire from that of the previous survey.
- *Change in the operational definition of employment:*
  - Strict application of the criterion of "at least one hour worked in a gainful job" in the Chilean *Nueva Encuesta Nacional de Empleo* (NENE), a quarterly continuous survey, from April 2010 onward.
- *Change in the operational definition of unemployment regarding:*
  - Active job-search methods: in particular a change from registration to contact with the public employment service: France (2002/03) and Spain (2000/01).
  - Duration of active job search: In Belgium (2010/11), the duration of job search has been changed from an unlimited duration to previous four weeks including the survey reference week. In Chile (2009/10), the duration of active job search has been shortened from last two months to previous four weeks including the survey reference week.

**Major breaks in series** *(cont.)*

- Work availability criterion: In Sweden (2004/05), the work availability criterion changed from the reference week to two weeks following the reference week to be consistent with the operational definition in other EU countries. In Chile, the work availability criterion did not exist prior to 2010 in the *Encuesta Nacional de Empleo* (ENE) and has been introduced in the *Nueva Encuesta Nacional de Empleo* (NENE) since April 2010. It has been fixed to two weeks following the end of the reference week.
- Persons on lay-off considered as employed instead of unemployed: Norway (2005/06).
- Other minor changes: Australia (2000/01) and Poland (2003/04).

- *Changes in the questionnaire with impact on employment and unemployment estimates:* Germany (2010/11): new questionnaire design ensures better coverage of small jobs. This leads to higher than normal annual employment increase. Spain (2004/05): impact on employment and unemployment and impact on unemployment estimates in Norway (2005/06) and Sweden (2004/05).
- *Change from seasonal to calendar quarters:* Switzerland (2009/10) and the United Kingdom (2005/06). However, there is no break in series between 2005 and 2006 for the United Kingdom as calendar-quarter- based historical series are available since 1992.
- *Introduction of new EU harmonised questionnaire:* Sweden (2004/05) and Turkey (2003/04).
- *Change in lower age limit from 16 to 15 years:* Iceland (2008/09), Norway (2005/06) and Sweden (2006/07).
- *Change in lower age limit from 15 to 16 years:* Italy (2008/09).
- In Norway, since 2006, age is defined as years reached at the survey reference week, instead of completed years at the end of the year, as in previous years.
- *Inclusion of population controls based on census results in the estimation process:* Israel (2007/08), Mexico (2009/10) and Turkey (2006/07).
- In Japan, data for 2011 exclude three prefectures (Iwate, Miyagi and Fukushima) due to the temporary suspension of the labour force survey operation following the Great East Japan earthquake.

Further explanations on breaks in series and their impact on employment and unemployment levels and on ratios can be found at: *www.oecd.org/employment/outlook*.

The Russian Federation is currently undergoing an accession process.

## Table A. **Harmonised unemployment rates in OECD countries**

As a percentage of civilian labour force

| | 1991 | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Australia | 9.6 | 8.5 | 6.3 | 6.8 | 6.4 | 5.9 | 5.4 | 5.0 | 4.8 | 4.4 | 4.2 | 5.6 | 5.2 | 5.1 | 5.2 |
| Austria | .. | 3.9 | 3.6 | 3.6 | 4.2 | 4.3 | 5.0 | 5.2 | 4.8 | 4.4 | 3.8 | 4.8 | 4.4 | 4.1 | 4.4 |
| Belgium | 6.4 | 9.7 | 6.9 | 6.6 | 7.5 | 8.2 | 8.4 | 8.4 | 8.3 | 7.5 | 7.0 | 7.9 | 8.3 | 7.2 | 7.6 |
| Canada | 10.3 | 9.5 | 6.8 | 7.2 | 7.7 | 7.6 | 7.2 | 6.8 | 6.3 | 6.0 | 6.1 | 8.3 | 8.0 | 7.5 | 7.2 |
| Chile | 8.2 | 7.3 | 9.7 | 9.9 | 9.8 | 9.5 | 10.0 | 9.2 | 7.8 | 7.1 | 7.8 | 10.8 | 8.2 | 7.1 | 6.4 |
| Czech Republic | .. | .. | 8.8 | 8.1 | 7.3 | 7.8 | 8.3 | 7.9 | 7.1 | 5.3 | 4.4 | 6.7 | 7.3 | 6.7 | 7.0 |
| Denmark | 7.9 | 6.7 | 4.3 | 4.5 | 4.6 | 5.4 | 5.5 | 4.8 | 3.9 | 3.8 | 3.4 | 6.0 | 7.5 | 7.6 | 7.5 |
| Estonia | .. | .. | 13.6 | 12.6 | 10.4 | 10.1 | 9.7 | 7.9 | 5.9 | 4.6 | 5.6 | 13.8 | 16.9 | 12.6 | 10.1 |
| Finland | 6.6 | 15.4 | 9.8 | 9.1 | 9.1 | 9.0 | 8.8 | 8.4 | 7.7 | 6.9 | 6.4 | 8.2 | 8.4 | 7.8 | 7.7 |
| France | 8.5 | 10.5 | 9.0 | 8.2 | 8.3 | 8.9 | 9.3 | 9.3 | 9.2 | 8.4 | 7.8 | 9.5 | 9.7 | 9.6 | 10.3 |
| Germany | 5.5 | 8.3 | 8.0 | 7.9 | 8.7 | 9.8 | 10.5 | 11.3 | 10.3 | 8.7 | 7.5 | 7.8 | 7.1 | 6.0 | 5.5 |
| Greece | .. | .. | 11.2 | 10.7 | 10.3 | 9.7 | 10.5 | 9.9 | 8.9 | 8.3 | 7.7 | 9.5 | 12.6 | 17.7 | 24.3 |
| Hungary | .. | .. | 6.3 | 5.6 | 5.6 | 5.7 | 6.1 | 7.2 | 7.5 | 7.4 | 7.8 | 10.0 | 11.2 | 11.0 | 10.9 |
| Iceland | .. | .. | .. | .. | .. | 3.4 | 3.1 | 2.6 | 2.9 | 2.3 | 3.0 | 7.3 | 7.6 | 7.1 | 6.0 |
| Ireland | 14.8 | 12.3 | 4.2 | 3.9 | 4.5 | 4.6 | 4.5 | 4.4 | 4.5 | 4.7 | 6.4 | 12.0 | 13.9 | 14.7 | 14.7 |
| Israel | .. | 6.9 | 8.8 | 9.3 | 10.3 | 10.7 | 10.4 | 9.0 | 8.4 | 7.3 | 6.1 | 7.5 | 6.6 | 5.6 | 6.9 |
| Italy | 8.5 | 11.2 | 10.1 | 9.0 | 8.5 | 8.4 | 8.0 | 7.7 | 6.8 | 6.1 | 6.7 | 7.8 | 8.4 | 8.4 | 10.7 |
| Japan | 2.1 | 3.2 | 4.7 | 5.0 | 5.4 | 5.3 | 4.7 | 4.4 | 4.1 | 3.8 | 4.0 | 5.1 | 5.1 | 4.6 | 4.4 |
| Korea | 2.5 | 2.1 | 4.4 | 4.0 | 3.3 | 3.6 | 3.7 | 3.7 | 3.5 | 3.3 | 3.2 | 3.7 | 3.7 | 3.4 | 3.2 |
| Luxembourg | 1.7 | 2.9 | 2.2 | 1.9 | 2.6 | 3.8 | 5.0 | 4.7 | 4.6 | 4.2 | 4.9 | 5.1 | 4.6 | 4.8 | 5.1 |
| Mexico | 2.7 | 6.3 | 2.5 | 2.8 | 3.0 | 3.4 | 3.9 | 3.6 | 3.6 | 3.7 | 4.0 | 5.5 | 5.4 | 5.2 | 5.0 |
| Netherlands | 4.8 | 7.1 | 3.1 | 2.6 | 3.1 | 4.2 | 5.1 | 5.3 | 4.3 | 3.6 | 3.1 | 3.7 | 4.5 | 4.5 | 5.3 |
| New Zealand | 10.6 | 6.5 | 6.2 | 5.5 | 5.3 | 4.8 | 4.1 | 3.8 | 3.9 | 3.7 | 4.2 | 6.1 | 6.5 | 6.5 | 6.9 |
| Norway | 5.5 | 4.9 | 3.2 | 3.4 | 3.7 | 4.2 | 4.3 | 4.5 | 3.4 | 2.5 | 2.6 | 3.2 | 3.6 | 3.3 | 3.2 |
| Poland | .. | .. | 16.1 | 18.3 | 20.0 | 19.8 | 19.1 | 17.9 | 14.0 | 9.6 | 7.0 | 8.1 | 9.7 | 9.7 | 10.1 |
| Portugal | 4.2 | 7.2 | 4.0 | 4.1 | 5.1 | 6.4 | 6.8 | 7.7 | 7.8 | 8.1 | 7.7 | 9.6 | 11.0 | 12.9 | 15.9 |
| Slovak Republic | .. | .. | 18.9 | 19.5 | 18.8 | 17.7 | 18.4 | 16.4 | 13.5 | 11.2 | 9.6 | 12.1 | 14.5 | 13.6 | 14.0 |
| Slovenia | .. | .. | 6.7 | 6.2 | 6.3 | 6.7 | 6.3 | 6.5 | 6.0 | 4.9 | 4.4 | 5.9 | 7.3 | 8.2 | 8.9 |
| Spain | 14.5 | 20.0 | 11.7 | 10.5 | 11.4 | 11.4 | 10.9 | 9.2 | 8.5 | 8.3 | 11.3 | 18.0 | 20.1 | 21.6 | 25.1 |
| Sweden | 3.1 | 8.8 | 5.6 | 5.8 | 6.0 | 6.6 | 7.4 | 7.6 | 7.0 | 6.1 | 6.2 | 8.3 | 8.6 | 7.8 | 8.0 |
| Switzerland | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4.5 | 4.0 | 4.2 |
| Turkey | .. | .. | .. | .. | .. | .. | .. | 9.2 | 8.8 | 8.8 | 9.7 | 12.6 | 10.7 | 8.8 | 8.2 |
| United Kingdom | 8.6 | 8.5 | 5.4 | 5.0 | 5.1 | 5.0 | 4.7 | 4.8 | 5.4 | 5.3 | 5.7 | 7.6 | 7.8 | 8.0 | 7.9 |
| United States | 6.8 | 5.6 | 4.0 | 4.7 | 5.8 | 6.0 | 5.5 | 5.1 | 4.6 | 4.6 | 5.8 | 9.3 | 9.6 | 9.0 | 8.1 |
| OECD[a] | 6.5 | 7.3 | 6.1 | 6.3 | 6.8 | 7.0 | 6.9 | 6.6 | 6.1 | 5.6 | 6.0 | 8.1 | 8.3 | 8.0 | 8.0 |

*Note:* The OECD harmonised unemployment rates are compiled for 34 OECD member countries and conform to the guidelines of the 13th Conference of Labour Statisticians of the International Labour Office (referred to as the ILO guidelines). In so far as possible, the data have been adjusted to ensure comparability over time. All series are benchmarked to labour-force-survey-based estimates. The unemployment rates for the European Union member countries, Norway and Turkey are produced by the Statistical Office of the European Communities (Eurostat). For the remaining OECD countries, the OECD is responsible for collecting data and calculating unemployment rates. Please refer to the following URL for methodological notes: *www.oecd.org/dataoecd/21/0/44743407.pdf.*

*a)* Weighted average.

*Source:* OECD (2013), *Main Economic Indicators,* Vol. 2013, Issue 6, OECD Publishing, Paris, *http://dx.doi.org/10.1787/mei-v2013-6-en* .

StatLink http://dx.doi.org/10.1787/888932853435

## Table B. **Employment/population ratios by selected age groups**

As a percentage of the population in each age group

| | Total (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 69.3 | 72.9 | 72.7 | 72.3 | 62.1 | 64.2 | 60.7 | 59.7 | 76.3 | 80.0 | 79.8 | 79.5 | 46.2 | 56.6 | 61.1 | 61.4 |
| Austria | 68.3 | 71.4 | 72.1 | 72.5 | 52.8 | 55.5 | 54.9 | 54.6 | 82.5 | 84.0 | 84.9 | 85.4 | 28.3 | 38.6 | 41.5 | 43.1 |
| Belgium | 60.9 | 62.0 | 61.9 | 61.8 | 30.3 | 27.5 | 26.0 | 25.3 | 77.9 | 79.7 | 79.3 | 79.3 | 25.0 | 34.4 | 38.7 | 39.5 |
| Canada | 70.9 | 73.5 | 72.0 | 72.2 | 56.2 | 59.5 | 55.4 | 54.5 | 79.9 | 82.2 | 81.0 | 81.4 | 48.1 | 57.0 | 58.7 | 59.8 |
| Chile | 53.3 | 56.3 | 61.3 | 61.8 | 26.4 | 26.4 | 31.7 | 31.1 | 65.0 | 69.5 | 74.2 | 74.5 | 47.5 | 54.4 | 59.7 | 62.7 |
| Czech Republic | 65.2 | 66.1 | 65.7 | 66.5 | 38.3 | 28.5 | 24.7 | 25.2 | 81.6 | 83.5 | 82.8 | 82.9 | 36.3 | 46.0 | 47.6 | 49.4 |
| Denmark | 76.4 | 77.0 | 73.1 | 72.6 | 67.1 | 65.3 | 57.5 | 55.0 | 84.3 | 86.1 | 82.3 | 81.9 | 54.6 | 58.9 | 59.5 | 60.8 |
| Estonia | 61.0 | 69.2 | 65.2 | 67.2 | 32.9 | 34.9 | 32.3 | 34.3 | 75.7 | 84.5 | 78.1 | 79.2 | 44.0 | 59.5 | 57.1 | 60.5 |
| Finland | 67.5 | 70.5 | 69.2 | 69.5 | 42.9 | 46.4 | 42.3 | 43.3 | 80.9 | 83.3 | 82.3 | 82.0 | 42.3 | 55.0 | 57.0 | 58.2 |
| France | 61.7 | 64.3 | 63.9 | 63.9 | 28.3 | 31.0 | 29.9 | 28.8 | 78.4 | 82.0 | 81.4 | 80.8 | 29.3 | 38.2 | 41.5 | 44.5 |
| Germany | 65.6 | 69.0 | 72.6 | 72.8 | 47.2 | 45.9 | 48.2 | 46.6 | 79.3 | 80.3 | 82.8 | 83.2 | 37.6 | 51.3 | 59.9 | 61.5 |
| Greece | 55.9 | 61.4 | 55.6 | 51.3 | 26.9 | 24.0 | 16.3 | 13.1 | 70.2 | 75.6 | 69.0 | 64.1 | 39.0 | 42.4 | 39.4 | 36.4 |
| Hungary | 56.0 | 57.3 | 55.8 | 57.2 | 32.5 | 21.0 | 18.3 | 18.6 | 73.0 | 74.6 | 73.1 | 74.6 | 21.9 | 33.1 | 35.8 | 36.9 |
| Iceland[a] | 84.6 | 85.7 | 79.0 | 80.2 | 68.2 | 74.3 | 63.3 | 66.0 | 90.6 | 89.4 | 84.0 | 85.1 | 84.2 | 84.9 | 79.5 | 79.2 |
| Ireland | 65.1 | 69.2 | 59.2 | 58.8 | 49.3 | 50.4 | 29.4 | 27.9 | 75.5 | 78.8 | 69.6 | 69.4 | 45.3 | 54.2 | 50.8 | 49.5 |
| Israel[b] | 56.1 | 58.9 | 60.9 | 66.5 | 28.2 | 27.2 | 26.6 | 43.5 | 70.4 | 73.0 | 74.8 | 76.8 | 46.6 | 57.2 | 61.2 | 63.1 |
| Italy | 53.9 | 58.7 | 57.8 | 57.6 | 27.8 | 24.7 | 21.4 | 20.5 | 68.0 | 73.5 | 71.1 | 70.3 | 27.7 | 33.8 | 37.9 | 40.4 |
| Japan | 68.9 | 70.7 | 70.3 | 70.6 | 42.7 | 41.4 | 39.1 | 38.5 | 78.6 | 80.2 | 80.2 | 80.5 | 62.8 | 66.1 | 65.1 | 65.4 |
| Korea | 61.5 | 63.9 | 63.9 | 64.2 | 29.4 | 25.7 | 23.1 | 24.2 | 72.2 | 74.0 | 74.4 | 74.7 | 57.8 | 60.6 | 62.1 | 63.1 |
| Luxembourg | 62.7 | 64.2 | 64.6 | 65.8 | 31.8 | 22.5 | 20.7 | 21.7 | 78.2 | 81.9 | 82.0 | 83.1 | 27.2 | 32.0 | 39.3 | 41.0 |
| Mexico | 60.1 | 61.1 | 59.8 | 61.3 | 48.9 | 44.2 | 42.0 | 43.1 | 67.4 | 70.3 | 69.5 | 71.1 | 51.7 | 54.7 | 53.4 | 55.6 |
| Netherlands | 72.1 | 74.4 | 74.9 | 75.1 | 66.5 | 65.5 | 63.6 | 63.3 | 81.0 | 84.4 | 84.2 | 83.8 | 37.6 | 48.8 | 56.1 | 58.6 |
| New Zealand | 70.4 | 75.2 | 72.6 | 72.1 | 54.2 | 58.2 | 49.9 | 49.5 | 78.3 | 81.9 | 80.4 | 79.8 | 56.9 | 71.8 | 73.7 | 73.9 |
| Norway[a] | 77.9 | 76.9 | 75.3 | 75.8 | 58.1 | 55.1 | 51.4 | 52.7 | 85.3 | 85.8 | 84.7 | 84.6 | 67.1 | 69.0 | 69.6 | 70.9 |
| Poland | 55.0 | 57.0 | 59.3 | 59.7 | 24.5 | 25.8 | 24.9 | 24.7 | 70.9 | 74.9 | 77.3 | 77.2 | 28.4 | 29.7 | 36.9 | 38.7 |
| Portugal | 68.3 | 67.8 | 64.2 | 61.8 | 41.8 | 34.9 | 27.1 | 23.6 | 81.8 | 81.0 | 77.8 | 75.4 | 50.7 | 50.9 | 47.9 | 46.5 |
| Slovak Republic | 56.8 | 60.7 | 59.5 | 59.7 | 29.0 | 27.6 | 20.2 | 20.1 | 74.7 | 78.0 | 76.5 | 76.4 | 21.3 | 35.7 | 41.4 | 43.1 |
| Slovenia | .. | 67.8 | 64.4 | 64.1 | .. | 37.6 | 31.5 | 27.3 | .. | 85.3 | 83.1 | 83.3 | .. | 33.5 | 31.2 | 32.9 |
| Spain[a] | 57.4 | 66.6 | 58.5 | 56.2 | 36.3 | 42.9 | 24.1 | 20.0 | 68.4 | 76.8 | 68.7 | 66.3 | 37.0 | 44.6 | 44.5 | 43.9 |
| Sweden[a] | 74.3 | 74.2 | 73.6 | 73.8 | 46.7 | 42.1 | 40.8 | 40.0 | 83.8 | 86.1 | 85.1 | 85.2 | 65.1 | 70.1 | 72.2 | 73.1 |
| Switzerland | 78.4 | 78.6 | 79.3 | 79.4 | 65.1 | 62.6 | 62.9 | 61.7 | 85.4 | 86.1 | 86.4 | 86.7 | 63.3 | 67.2 | 69.5 | 70.5 |
| Turkey | 48.9 | 44.6 | 48.4 | 48.9 | 37.0 | 30.2 | 32.1 | 31.5 | 56.7 | 53.2 | 57.5 | 58.3 | 36.4 | 27.1 | 31.4 | 31.9 |
| United Kingdom[a] | 72.2 | 72.4 | 70.4 | 70.9 | 61.5 | 56.5 | 50.1 | 50.0 | 80.2 | 81.4 | 80.1 | 80.3 | 50.4 | 57.3 | 56.8 | 58.1 |
| United States[a] | 74.1 | 71.8 | 66.6 | 67.1 | 59.7 | 53.1 | 45.5 | 46.0 | 81.5 | 79.9 | 75.1 | 75.7 | 57.8 | 61.8 | 60.0 | 60.7 |
| OECD[c] | 65.4 | 66.5 | 64.8 | 65.1 | 45.5 | 43.1 | 39.7 | 39.7 | 75.9 | 77.0 | 75.4 | 75.6 | 47.6 | 53.5 | 54.4 | 55.6 |
| Brazil | .. | 67.4 | 66.8 | .. | .. | 52.9 | 50.0 | .. | .. | 76.1 | 76.3 | .. | .. | 53.7 | 52.7 | .. |
| Russian Fed. | 62.9 | 68.5 | 68.0 | 69.0 | 34.3 | 33.7 | 35.0 | 33.7 | 79.6 | 84.7 | 84.4 | 85.7 | 34.6 | 52.0 | 46.6 | 47.1 |
| South Africa | .. | 44.4 | 40.8 | 41.0 | .. | 15.7 | 12.7 | 12.2 | .. | 60.6 | 56.5 | 56.9 | .. | 42.2 | 38.0 | 38.0 |

## Table B. **Employment/population ratios by selected age groups** *(cont.)*

As a percentage of the male population in each age group

| | Men (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 77.1 | 79.6 | 78.7 | 78.1 | 63.0 | 65.0 | 60.9 | 59.9 | 85.7 | 88.1 | 87.4 | 86.7 | 57.7 | 65.8 | 69.0 | 69.1 |
| Austria | 77.3 | 78.4 | 77.8 | 77.8 | 57.6 | 59.6 | 59.8 | 58.8 | 91.4 | 90.6 | 89.6 | 89.6 | 40.5 | 49.8 | 50.6 | 52.5 |
| Belgium | 69.8 | 68.7 | 67.1 | 66.9 | 33.7 | 29.9 | 27.7 | 27.8 | 87.9 | 87.0 | 84.9 | 84.5 | 35.1 | 42.9 | 46.0 | 46.0 |
| Canada | 76.2 | 77.1 | 75.0 | 75.2 | 56.7 | 59.1 | 54.5 | 53.4 | 85.8 | 86.3 | 84.8 | 85.2 | 57.4 | 63.6 | 63.6 | 64.7 |
| Chile | 71.9 | 72.3 | 73.6 | 73.6 | 34.2 | 32.7 | 37.6 | 36.0 | 87.4 | 89.0 | 88.3 | 88.4 | 71.6 | 77.2 | 79.8 | 82.1 |
| Czech Republic | 73.6 | 74.8 | 74.0 | 74.6 | 42.8 | 32.8 | 29.2 | 29.2 | 89.3 | 91.7 | 90.9 | 90.9 | 51.7 | 59.6 | 58.9 | 60.4 |
| Denmark | 80.7 | 80.8 | 75.9 | 75.2 | 70.3 | 66.5 | 56.6 | 54.6 | 88.3 | 89.8 | 85.7 | 84.6 | 61.9 | 64.9 | 63.8 | 65.9 |
| Estonia | 65.4 | 73.0 | 67.8 | 69.9 | 38.6 | 39.7 | 35.2 | 37.3 | 78.2 | 89.4 | 81.5 | 83.1 | 54.7 | 58.6 | 57.0 | 59.5 |
| Finland | 70.5 | 72.4 | 70.9 | 70.9 | 45.7 | 47.9 | 43.3 | 44.1 | 84.1 | 85.9 | 84.7 | 84.5 | 43.7 | 55.1 | 56.7 | 56.7 |
| France | 68.8 | 69.1 | 68.2 | 68.0 | 31.4 | 34.1 | 32.8 | 31.3 | 87.3 | 88.2 | 86.7 | 85.8 | 32.8 | 40.5 | 44.1 | 47.4 |
| Germany | 72.9 | 74.7 | 77.4 | 77.6 | 49.7 | 48.2 | 50.2 | 48.6 | 87.2 | 86.4 | 87.7 | 88.1 | 46.4 | 59.4 | 67.0 | 68.5 |
| Greece | 71.3 | 74.9 | 65.9 | 60.6 | 31.9 | 29.2 | 19.6 | 16.1 | 88.6 | 90.1 | 80.0 | 74.0 | 55.3 | 59.1 | 52.3 | 47.6 |
| Hungary | 62.7 | 64.0 | 61.2 | 62.5 | 36.0 | 24.2 | 19.9 | 20.0 | 79.2 | 81.3 | 79.6 | 80.4 | 32.8 | 41.7 | 39.8 | 42.6 |
| Iceland[a] | 88.2 | 89.5 | 80.8 | 81.9 | 66.1 | 73.6 | 59.0 | 63.1 | 95.1 | 94.2 | 87.5 | 87.9 | 94.2 | 89.6 | 82.4 | 83.0 |
| Ireland | 76.3 | 77.5 | 62.8 | 62.4 | 53.4 | 53.2 | 27.4 | 25.8 | 88.4 | 87.9 | 74.2 | 74.2 | 63.6 | 68.1 | 57.8 | 55.9 |
| Israel[b] | 61.4 | 63.3 | 64.3 | 70.7 | 26.9 | 26.1 | 24.7 | 44.5 | 78.1 | 78.9 | 79.5 | 81.6 | 58.7 | 67.2 | 70.7 | 71.6 |
| Italy | 68.2 | 70.7 | 68.5 | 67.5 | 33.2 | 29.6 | 25.5 | 24.2 | 84.9 | 87.3 | 83.4 | 81.6 | 40.9 | 45.1 | 48.4 | 50.4 |
| Japan | 80.9 | 81.7 | 80.2 | 80.3 | 42.5 | 41.3 | 38.0 | 37.9 | 93.4 | 92.8 | 91.6 | 91.5 | 78.4 | 81.5 | 78.7 | 78.8 |
| Korea | 73.1 | 74.7 | 74.5 | 74.9 | 24.6 | 20.5 | 18.1 | 19.9 | 88.0 | 87.3 | 87.5 | 87.8 | 68.5 | 74.7 | 76.5 | 77.2 |
| Luxembourg | 75.0 | 72.3 | 72.1 | 72.5 | 35.3 | 26.5 | 22.8 | 23.4 | 92.8 | 92.2 | 90.8 | 91.0 | 37.9 | 35.6 | 47.0 | 47.4 |
| Mexico | 82.8 | 80.9 | 77.8 | 78.9 | 64.7 | 57.8 | 54.6 | 55.6 | 93.8 | 92.9 | 90.2 | 91.0 | 78.1 | 79.2 | 74.5 | 76.6 |
| Netherlands | 81.2 | 81.1 | 79.8 | 79.7 | 67.9 | 66.9 | 62.7 | 62.4 | 91.4 | 91.4 | 89.4 | 88.6 | 49.7 | 60.0 | 65.7 | 68.1 |
| New Zealand | 77.9 | 81.9 | 78.2 | 77.5 | 56.3 | 60.5 | 51.3 | 51.3 | 87.0 | 90.1 | 87.8 | 86.9 | 67.9 | 80.7 | 80.2 | 79.6 |
| Norway[a] | 81.7 | 79.7 | 77.2 | 77.7 | 61.0 | 54.0 | 50.5 | 51.4 | 88.8 | 89.2 | 87.1 | 87.0 | 73.1 | 73.9 | 72.9 | 74.8 |
| Poland | 61.2 | 63.6 | 66.0 | 66.3 | 27.3 | 29.2 | 29.6 | 29.2 | 77.6 | 81.1 | 83.0 | 82.9 | 36.7 | 41.4 | 47.8 | 49.3 |
| Portugal | 76.3 | 73.9 | 68.1 | 64.9 | 47.4 | 39.2 | 29.3 | 25.5 | 89.9 | 87.2 | 81.6 | 78.4 | 62.1 | 58.6 | 54.2 | 51.5 |
| Slovak Republic | 62.2 | 68.4 | 66.3 | 66.7 | 29.8 | 30.9 | 25.0 | 24.1 | 79.6 | 85.0 | 82.6 | 83.0 | 35.4 | 52.6 | 52.6 | 53.6 |
| Slovenia | .. | 72.7 | 67.7 | 67.4 | .. | 43.2 | 35.7 | 30.4 | .. | 88.1 | 84.8 | 85.4 | .. | 45.3 | 39.5 | 40.7 |
| Spain[a] | 72.7 | 77.4 | 64.1 | 61.0 | 43.2 | 48.5 | 24.2 | 20.3 | 85.6 | 87.6 | 74.5 | 71.1 | 55.2 | 60.0 | 53.9 | 52.4 |
| Sweden[a] | 76.3 | 76.5 | 75.8 | 75.6 | 47.9 | 41.9 | 40.6 | 38.7 | 85.9 | 89.0 | 87.9 | 87.8 | 67.7 | 73.1 | 75.4 | 76.4 |
| Switzerland | 87.3 | 85.6 | 85.4 | 85.2 | 66.5 | 65.4 | 64.1 | 63.2 | 95.2 | 93.6 | 92.8 | 92.7 | 76.7 | 76.4 | 79.1 | 79.5 |
| Turkey | 71.7 | 66.8 | 69.3 | 69.2 | 49.7 | 41.5 | 43.4 | 42.5 | 85.0 | 80.7 | 82.7 | 82.8 | 51.9 | 40.5 | 45.4 | 46.4 |
| United Kingdom[a] | 78.9 | 78.6 | 75.5 | 76.1 | 64.0 | 58.0 | 51.1 | 50.4 | 87.4 | 88.3 | 85.8 | 86.4 | 59.7 | 66.1 | 64.4 | 65.4 |
| United States[a] | 80.6 | 77.8 | 71.4 | 72.3 | 61.9 | 54.4 | 46.0 | 46.6 | 89.0 | 87.5 | 81.4 | 82.5 | 65.7 | 67.4 | 64.4 | 65.5 |
| OECD[c] | 76.1 | 75.9 | 73.0 | 73.2 | 50.2 | 47.0 | 43.0 | 42.9 | 88.2 | 87.9 | 85.0 | 85.1 | 59.2 | 63.9 | 63.4 | 64.5 |
| Brazil | .. | 79.7 | 79.3 | .. | .. | 62.9 | 59.1 | .. | .. | 88.9 | 89.5 | .. | .. | 70.1 | 70.0 | .. |
| Russian Fed. | 67.2 | 72.0 | 72.4 | 73.6 | 37.8 | 36.6 | 38.8 | 37.5 | 82.1 | 87.0 | 87.2 | 88.7 | 46.7 | 63.9 | 57.5 | 58.1 |
| South Africa | .. | 52.2 | 47.4 | 47.5 | .. | 18.8 | 14.8 | 14.5 | .. | 71.3 | 65.8 | 66.0 | .. | 55.3 | 47.7 | 47.0 |

## Table B. **Employment/population ratios by selected age groups** *(cont.)*

As a percentage of the female population in each age group

| | Women (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 61.4 | 66.1 | 66.7 | 66.6 | 61.1 | 63.3 | 60.4 | 59.5 | 67.1 | 71.9 | 72.4 | 72.3 | 34.5 | 47.4 | 53.4 | 53.8 |
| Austria | 59.4 | 64.4 | 66.5 | 67.3 | 48.1 | 51.5 | 50.1 | 50.5 | 73.6 | 77.5 | 80.2 | 81.1 | 16.8 | 28.0 | 32.9 | 34.1 |
| Belgium | 51.9 | 55.3 | 56.7 | 56.8 | 26.7 | 25.0 | 24.2 | 22.6 | 67.8 | 72.3 | 73.8 | 73.9 | 15.4 | 26.0 | 31.6 | 33.1 |
| Canada | 65.6 | 69.9 | 68.9 | 69.2 | 55.7 | 59.8 | 56.4 | 55.6 | 73.9 | 78.2 | 77.2 | 77.6 | 39.1 | 50.7 | 53.9 | 55.1 |
| Chile | 35.1 | 40.4 | 49.1 | 50.2 | 18.2 | 19.6 | 25.3 | 25.6 | 43.4 | 50.6 | 60.6 | 61.2 | 24.6 | 32.5 | 41.5 | 45.2 |
| Czech Republic | 56.9 | 57.3 | 57.2 | 58.2 | 33.6 | 23.9 | 19.9 | 21.0 | 73.7 | 74.9 | 74.3 | 74.6 | 22.4 | 33.5 | 37.2 | 39.1 |
| Denmark | 72.1 | 73.2 | 70.4 | 70.0 | 64.0 | 64.0 | 58.5 | 55.4 | 80.4 | 82.3 | 78.9 | 79.1 | 46.2 | 52.9 | 55.3 | 55.8 |
| Estonia | 57.0 | 65.7 | 62.7 | 64.6 | 27.0 | 30.0 | 29.2 | 31.2 | 73.4 | 80.0 | 74.8 | 75.4 | 36.0 | 60.3 | 57.1 | 61.2 |
| Finland | 64.5 | 68.5 | 67.5 | 68.2 | 39.9 | 44.7 | 41.3 | 42.5 | 77.6 | 80.7 | 79.7 | 79.4 | 40.9 | 54.8 | 57.2 | 59.7 |
| France | 54.8 | 59.6 | 59.7 | 60.0 | 25.2 | 27.9 | 26.9 | 26.3 | 69.6 | 76.0 | 76.2 | 76.0 | 26.0 | 36.0 | 39.1 | 41.7 |
| Germany | 58.1 | 63.2 | 67.7 | 68.0 | 44.6 | 43.5 | 46.1 | 44.6 | 71.2 | 74.0 | 77.8 | 78.2 | 29.0 | 43.4 | 53.0 | 54.8 |
| Greece | 41.3 | 47.9 | 45.1 | 41.9 | 22.0 | 18.7 | 12.9 | 10.0 | 52.6 | 60.8 | 57.7 | 53.8 | 24.4 | 26.9 | 27.3 | 26.0 |
| Hungary | 49.6 | 50.9 | 50.6 | 52.1 | 28.8 | 17.8 | 16.7 | 17.2 | 66.9 | 67.9 | 66.6 | 68.9 | 13.1 | 26.2 | 32.4 | 32.2 |
| Iceland[a] | 81.0 | 81.7 | 77.3 | 78.5 | 70.5 | 75.0 | 67.8 | 69.1 | 86.0 | 84.1 | 80.4 | 82.3 | 74.4 | 80.0 | 76.7 | 75.5 |
| Ireland | 53.7 | 60.6 | 55.6 | 55.2 | 45.1 | 47.6 | 31.6 | 30.0 | 62.6 | 69.5 | 65.1 | 64.7 | 26.8 | 40.0 | 43.6 | 43.2 |
| Israel[b] | 50.9 | 54.6 | 57.5 | 62.4 | 29.6 | 28.3 | 28.5 | 42.4 | 63.0 | 67.1 | 70.2 | 72.1 | 35.9 | 48.0 | 52.6 | 55.1 |
| Italy | 39.6 | 46.6 | 47.2 | 47.8 | 22.1 | 19.5 | 17.1 | 16.6 | 50.9 | 59.6 | 58.9 | 59.1 | 15.3 | 23.0 | 28.1 | 30.9 |
| Japan | 56.7 | 59.5 | 60.3 | 60.7 | 43.0 | 41.5 | 40.2 | 39.0 | 63.6 | 67.4 | 68.5 | 69.2 | 47.9 | 51.2 | 52.0 | 52.4 |
| Korea | 50.0 | 53.2 | 53.1 | 53.5 | 33.7 | 30.4 | 27.7 | 28.3 | 56.0 | 60.5 | 61.0 | 61.2 | 47.9 | 46.9 | 48.1 | 49.3 |
| Luxembourg | 50.0 | 56.1 | 56.9 | 59.0 | 28.3 | 18.4 | 18.5 | 20.1 | 63.0 | 71.7 | 72.9 | 75.0 | 16.8 | 28.6 | 31.3 | 34.3 |
| Mexico | 39.6 | 43.6 | 43.4 | 45.3 | 34.0 | 31.5 | 29.5 | 30.7 | 44.3 | 51.0 | 51.3 | 53.4 | 27.7 | 32.7 | 34.4 | 37.2 |
| Netherlands | 62.7 | 67.5 | 69.9 | 70.4 | 65.1 | 64.0 | 64.4 | 64.3 | 70.3 | 77.3 | 79.0 | 78.9 | 25.5 | 37.5 | 46.4 | 49.1 |
| New Zealand | 63.2 | 68.7 | 67.2 | 67.0 | 52.2 | 55.9 | 48.3 | 47.5 | 70.0 | 74.3 | 73.5 | 73.1 | 46.1 | 63.1 | 67.5 | 68.4 |
| Norway[a] | 74.0 | 74.0 | 73.4 | 73.8 | 55.0 | 56.3 | 52.4 | 54.0 | 81.6 | 82.3 | 82.2 | 82.1 | 61.2 | 64.0 | 66.1 | 66.9 |
| Poland | 48.9 | 50.6 | 52.7 | 53.1 | 21.8 | 22.4 | 20.0 | 19.9 | 64.3 | 68.8 | 71.5 | 71.5 | 21.4 | 19.4 | 27.2 | 29.2 |
| Portugal | 60.5 | 61.9 | 60.4 | 58.7 | 36.0 | 30.6 | 24.9 | 21.6 | 73.9 | 74.9 | 74.1 | 72.5 | 40.8 | 44.0 | 42.2 | 42.0 |
| Slovak Republic | 51.5 | 53.0 | 52.7 | 52.7 | 28.2 | 24.1 | 15.1 | 15.9 | 69.8 | 71.0 | 70.4 | 69.6 | 9.8 | 21.2 | 31.5 | 33.6 |
| Slovenia | .. | 62.6 | 60.9 | 60.5 | .. | 31.4 | 26.9 | 23.7 | .. | 82.4 | 81.3 | 81.0 | .. | 22.2 | 22.7 | 25.0 |
| Spain[a] | 42.0 | 55.5 | 52.8 | 51.3 | 29.0 | 37.0 | 24.0 | 19.8 | 51.0 | 65.6 | 62.7 | 61.3 | 20.1 | 30.0 | 35.6 | 36.0 |
| Sweden[a] | 72.2 | 71.8 | 71.3 | 71.8 | 45.4 | 42.2 | 41.0 | 41.5 | 81.7 | 83.0 | 82.2 | 82.5 | 62.4 | 67.2 | 69.1 | 69.8 |
| Switzerland | 69.4 | 71.6 | 73.3 | 73.6 | 63.5 | 59.7 | 61.7 | 60.1 | 75.6 | 78.5 | 80.0 | 80.6 | 50.3 | 58.1 | 60.0 | 61.5 |
| Turkey | 26.2 | 22.8 | 27.8 | 28.7 | 24.8 | 19.3 | 21.2 | 20.7 | 27.6 | 25.6 | 32.2 | 33.7 | 21.5 | 14.6 | 17.9 | 18.0 |
| United Kingdom[a] | 65.6 | 66.3 | 65.3 | 65.7 | 59.1 | 54.8 | 49.2 | 49.6 | 73.1 | 74.6 | 74.4 | 74.3 | 41.4 | 48.9 | 49.5 | 51.0 |
| United States[a] | 67.8 | 65.9 | 62.0 | 62.2 | 57.4 | 51.8 | 44.9 | 45.4 | 74.2 | 72.5 | 69.0 | 69.2 | 50.6 | 56.6 | 55.9 | 56.1 |
| OECD[c] | 55.0 | 57.2 | 56.8 | 57.2 | 40.8 | 39.2 | 36.4 | 36.4 | 63.7 | 66.3 | 66.0 | 66.3 | 36.7 | 43.6 | 46.0 | 47.2 |
| Brazil | .. | 55.8 | 55.2 | .. | .. | 42.7 | 40.8 | .. | .. | 64.3 | 64.2 | .. | .. | 39.5 | 37.5 | .. |
| Russian Fed. | 58.9 | 65.3 | 64.0 | 64.7 | 30.6 | 30.8 | 31.1 | 29.8 | 77.2 | 82.5 | 81.8 | 82.9 | 25.8 | 43.1 | 38.6 | 39.0 |
| South Africa | .. | 37.4 | 34.6 | 34.9 | .. | 12.6 | 10.5 | 9.9 | .. | 51.2 | 47.8 | 48.4 | .. | 31.8 | 29.9 | 30.4 |

*a)* The lower age limit is 16 instead of 15 for Iceland up to 2008, Italy prior to 2009, Norway up to 2005 and Sweden up to 2006.

*b)* Ratios are under-estimated prior to 2012. See details in the PDF reported below.

*c)* Weighted average.

*Source and definitions* : *OECD Online Employment Database* : *www.oecd.org/employment/database* and *www.oecd.org/els/emp/lfsnotes_sources.pdf.*

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## Table C. **Labour force participation rates by selected age groups**

As a percentage of the population in each age group

| | Total (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 74.0 | 76.2 | 76.7 | 76.4 | 70.6 | 70.8 | 68.4 | 67.7 | 80.4 | 82.8 | 83.1 | 82.8 | 48.3 | 58.2 | 63.2 | 63.6 |
| Austria | 70.8 | 74.7 | 75.3 | 75.9 | 55.7 | 60.8 | 59.9 | 59.9 | 85.2 | 87.4 | 88.1 | 88.7 | 29.8 | 39.8 | 42.9 | 44.4 |
| Belgium | 65.2 | 67.1 | 66.7 | 66.9 | 35.7 | 33.9 | 32.0 | 31.5 | 82.8 | 85.3 | 84.7 | 85.0 | 25.9 | 35.9 | 40.3 | 41.4 |
| Canada | 76.2 | 78.3 | 77.8 | 77.9 | 64.4 | 66.9 | 64.6 | 63.6 | 84.8 | 86.6 | 86.3 | 86.6 | 50.9 | 60.1 | 62.9 | 63.8 |
| Chile | 58.8 | 60.8 | 66.2 | 66.3 | 33.6 | 32.1 | 38.4 | 37.1 | 70.4 | 73.9 | 79.0 | 78.9 | 50.3 | 56.5 | 62.2 | 65.0 |
| Czech Republic | 71.6 | 69.8 | 70.5 | 71.6 | 46.1 | 31.9 | 30.1 | 31.3 | 88.4 | 87.8 | 88.0 | 88.3 | 38.2 | 48.2 | 50.6 | 52.4 |
| Denmark | 80.0 | 80.1 | 79.3 | 78.6 | 71.9 | 70.6 | 67.1 | 64.1 | 87.9 | 88.9 | 88.2 | 87.8 | 56.9 | 61.0 | 63.2 | 64.4 |
| Estonia | 70.8 | 72.7 | 74.7 | 74.9 | 42.8 | 38.7 | 41.2 | 42.8 | 86.9 | 88.3 | 88.3 | 87.6 | 48.6 | 61.7 | 64.5 | 65.0 |
| Finland | 74.9 | 75.7 | 75.1 | 75.4 | 53.8 | 55.0 | 52.2 | 52.7 | 87.9 | 88.0 | 87.6 | 87.4 | 46.6 | 58.8 | 60.9 | 62.2 |
| France | 68.8 | 69.9 | 70.4 | 71.0 | 35.6 | 38.4 | 38.3 | 37.8 | 86.4 | 88.1 | 88.5 | 88.5 | 31.6 | 40.2 | 44.4 | 47.9 |
| Germany | 71.1 | 75.6 | 77.2 | 77.1 | 51.5 | 52.0 | 52.7 | 50.8 | 85.3 | 87.2 | 87.7 | 87.7 | 42.9 | 57.2 | 64.0 | 65.4 |
| Greece | 63.0 | 67.0 | 67.7 | 67.9 | 38.1 | 31.1 | 29.2 | 29.2 | 77.6 | 81.9 | 83.2 | 83.9 | 40.6 | 43.9 | 43.1 | 42.2 |
| Hungary | 59.9 | 61.9 | 62.7 | 64.3 | 37.2 | 25.6 | 24.7 | 25.9 | 77.3 | 80.0 | 81.3 | 82.9 | 22.6 | 34.5 | 39.2 | 40.0 |
| Iceland[a] | 86.6 | 87.8 | 85.2 | 85.5 | 71.6 | 80.1 | 74.1 | 76.3 | 92.2 | 90.6 | 89.0 | 89.2 | 85.7 | 85.7 | 84.1 | 82.8 |
| Ireland | 68.2 | 72.7 | 69.5 | 69.4 | 53.6 | 56.2 | 42.0 | 41.6 | 78.7 | 82.1 | 80.5 | 80.3 | 46.5 | 55.5 | 55.8 | 55.1 |
| Israel[b] | 61.5 | 63.7 | 64.6 | 71.5 | 33.9 | 32.4 | 30.0 | 49.5 | 76.1 | 77.8 | 78.8 | 81.8 | 50.0 | 60.4 | 63.9 | 66.3 |
| Italy | 60.3 | 62.5 | 63.1 | 64.6 | 39.5 | 30.9 | 30.2 | 31.6 | 74.3 | 77.6 | 76.9 | 77.9 | 29.0 | 34.6 | 39.5 | 42.6 |
| Japan | 72.5 | 73.6 | 73.8 | 73.9 | 47.0 | 44.9 | 42.5 | 41.8 | 81.9 | 83.3 | 83.9 | 84.0 | 66.5 | 68.4 | 68.2 | 68.2 |
| Korea | 64.4 | 66.2 | 66.2 | 66.4 | 33.0 | 28.2 | 25.5 | 26.6 | 75.2 | 76.4 | 76.9 | 77.0 | 59.5 | 62.0 | 63.7 | 64.7 |
| Luxembourg | 64.2 | 66.9 | 67.9 | 69.4 | 34.0 | 26.5 | 24.9 | 26.8 | 79.8 | 84.7 | 85.6 | 87.0 | 27.6 | 32.7 | 40.4 | 41.9 |
| Mexico | 61.7 | 63.3 | 63.3 | 64.5 | 51.5 | 47.4 | 46.6 | 47.6 | 68.6 | 72.3 | 72.8 | 74.0 | 52.4 | 55.6 | 55.0 | 57.1 |
| Netherlands | 74.3 | 77.1 | 78.4 | 79.3 | 70.8 | 70.4 | 68.9 | 69.9 | 83.1 | 86.8 | 87.5 | 87.7 | 38.5 | 50.8 | 58.5 | 61.5 |
| New Zealand | 75.1 | 78.1 | 77.8 | 77.7 | 62.8 | 64.7 | 60.3 | 60.1 | 82.1 | 84.1 | 84.6 | 84.3 | 59.7 | 72.9 | 76.2 | 77.0 |
| Norway[a] | 80.7 | 78.9 | 78.0 | 78.4 | 64.7 | 59.4 | 56.2 | 57.6 | 87.6 | 87.5 | 87.1 | 86.9 | 68.0 | 69.7 | 70.5 | 71.8 |
| Poland | 65.8 | 63.2 | 65.7 | 66.5 | 37.8 | 33.0 | 33.5 | 33.6 | 82.4 | 81.7 | 84.2 | 84.6 | 31.3 | 31.8 | 39.6 | 41.8 |
| Portugal | 71.2 | 74.1 | 74.1 | 73.9 | 45.7 | 41.9 | 38.8 | 37.9 | 84.8 | 87.8 | 88.4 | 88.5 | 52.4 | 54.4 | 53.7 | 53.4 |
| Slovak Republic | 69.9 | 68.2 | 68.8 | 69.4 | 46.0 | 34.5 | 30.2 | 30.5 | 88.4 | 86.8 | 87.0 | 87.1 | 24.3 | 38.8 | 46.0 | 48.5 |
| Slovenia | .. | 71.3 | 70.3 | 70.4 | .. | 41.8 | 37.4 | 34.4 | .. | 89.3 | 90.1 | 90.8 | .. | 34.6 | 33.3 | 35.1 |
| Spain[a] | 66.7 | 72.6 | 74.7 | 75.1 | 48.5 | 52.4 | 45.0 | 42.8 | 78.0 | 82.8 | 86.0 | 86.7 | 40.9 | 47.4 | 52.3 | 53.5 |
| Sweden[a] | 79.0 | 79.1 | 79.9 | 80.3 | 52.9 | 52.1 | 52.8 | 52.5 | 88.2 | 90.0 | 90.3 | 90.6 | 69.3 | 73.0 | 76.2 | 77.1 |
| Switzerland | 80.6 | 81.6 | 82.8 | 83.0 | 68.4 | 67.4 | 68.2 | 67.4 | 87.4 | 88.9 | 89.7 | 90.0 | 65.1 | 69.3 | 71.9 | 72.7 |
| Turkey | 52.4 | 49.8 | 53.8 | 54.0 | 42.5 | 37.7 | 39.3 | 38.2 | 59.6 | 58.2 | 62.9 | 63.5 | 37.2 | 28.3 | 33.0 | 33.4 |
| United Kingdom[a] | 76.4 | 76.5 | 76.5 | 77.1 | 69.7 | 65.8 | 62.7 | 63.3 | 83.9 | 84.6 | 85.3 | 85.5 | 52.7 | 59.2 | 59.6 | 61.1 |
| United States[a] | 77.2 | 75.3 | 73.3 | 73.1 | 65.8 | 59.4 | 55.0 | 54.9 | 84.0 | 83.0 | 81.6 | 81.4 | 59.2 | 63.8 | 64.2 | 64.5 |
| OECD[c] | 69.9 | 70.5 | 70.6 | 70.9 | 51.7 | 49.0 | 47.4 | 47.4 | 80.2 | 81.0 | 81.3 | 81.5 | 50.1 | 55.7 | 57.8 | 58.9 |
| Brazil | .. | 73.5 | 71.8 | .. | .. | 63.5 | 59.1 | .. | .. | 81.0 | 80.3 | .. | .. | 55.3 | 53.9 | .. |
| Russian Fed. | 70.4 | 72.9 | 72.8 | 73.0 | 43.2 | 39.4 | 41.3 | 39.5 | 87.7 | 89.2 | 89.4 | 89.9 | 37.4 | 53.7 | 48.8 | 48.8 |
| South Africa | .. | 57.2 | 54.4 | 54.8 | .. | 29.3 | 25.2 | 25.2 | .. | 74.5 | 72.3 | 72.9 | .. | 44.8 | 40.5 | 40.8 |

## Table C. **Labour force participation rates by selected age groups** *(cont.)*

As a percentage of the male population in each age group

| | Men (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 82.5 | 83.0 | 82.9 | 82.5 | 72.3 | 71.8 | 69.1 | 68.4 | 90.4 | 90.8 | 90.6 | 90.1 | 60.8 | 67.7 | 71.6 | 71.8 |
| Austria | 79.9 | 81.7 | 81.1 | 81.4 | 60.6 | 65.0 | 64.9 | 64.5 | 94.0 | 93.7 | 92.8 | 93.1 | 42.8 | 51.3 | 52.6 | 54.4 |
| Belgium | 73.8 | 73.6 | 72.3 | 72.5 | 38.7 | 36.1 | 34.1 | 35.0 | 92.1 | 92.5 | 90.7 | 90.7 | 36.3 | 44.4 | 47.8 | 47.9 |
| Canada | 81.9 | 82.4 | 81.5 | 81.6 | 65.8 | 67.4 | 64.7 | 63.5 | 91.0 | 91.1 | 90.5 | 90.8 | 60.7 | 67.1 | 68.5 | 69.3 |
| Chile | 78.9 | 77.4 | 78.6 | 78.0 | 42.5 | 39.0 | 44.3 | 42.1 | 94.4 | 93.9 | 92.9 | 92.5 | 76.5 | 80.2 | 82.9 | 85.0 |
| Czech Republic | 79.4 | 78.1 | 78.7 | 79.5 | 51.3 | 36.7 | 35.6 | 36.4 | 94.9 | 95.0 | 95.3 | 95.5 | 54.5 | 62.4 | 62.6 | 64.0 |
| Denmark | 84.0 | 83.7 | 82.3 | 81.4 | 75.2 | 72.0 | 67.1 | 64.1 | 91.5 | 92.3 | 91.5 | 90.6 | 64.5 | 66.9 | 68.3 | 69.9 |
| Estonia | 76.7 | 77.2 | 78.1 | 78.7 | 49.9 | 44.9 | 45.4 | 47.4 | 90.5 | 93.3 | 92.1 | 92.1 | 62.2 | 62.8 | 66.7 | 65.5 |
| Finland | 77.6 | 77.4 | 77.5 | 77.3 | 56.4 | 56.3 | 53.7 | 53.6 | 90.7 | 90.3 | 90.8 | 90.5 | 48.1 | 59.2 | 61.4 | 61.7 |
| France | 75.3 | 74.7 | 74.8 | 75.4 | 38.7 | 41.8 | 41.6 | 41.1 | 94.3 | 94.2 | 93.8 | 93.6 | 35.4 | 42.7 | 47.2 | 51.2 |
| Germany | 78.9 | 81.8 | 82.6 | 82.4 | 54.7 | 54.9 | 55.2 | 53.2 | 93.4 | 93.8 | 93.1 | 93.0 | 52.4 | 65.8 | 71.7 | 73.0 |
| Greece | 77.1 | 79.1 | 77.7 | 77.4 | 41.0 | 34.7 | 31.8 | 31.2 | 94.3 | 94.6 | 93.5 | 93.6 | 57.3 | 60.8 | 57.3 | 55.2 |
| Hungary | 67.5 | 69.0 | 68.8 | 70.5 | 41.8 | 29.3 | 27.3 | 28.0 | 84.4 | 86.9 | 88.3 | 89.5 | 34.1 | 43.6 | 44.0 | 46.4 |
| Iceland[a] | 89.8 | 91.6 | 87.8 | 87.6 | 70.1 | 80.0 | 72.3 | 74.0 | 96.1 | 95.3 | 92.7 | 92.3 | 94.7 | 90.4 | 88.7 | 86.9 |
| Ireland | 80.0 | 81.6 | 76.7 | 76.7 | 57.8 | 59.6 | 42.6 | 42.3 | 92.3 | 91.7 | 89.2 | 89.3 | 65.2 | 69.8 | 65.4 | 64.6 |
| Israel[b] | 67.1 | 68.0 | 68.2 | 75.9 | 32.4 | 30.7 | 28.0 | 50.4 | 84.0 | 83.7 | 83.8 | 86.9 | 63.9 | 71.4 | 74.1 | 75.5 |
| Italy | 74.3 | 74.4 | 74.2 | 75.0 | 44.6 | 36.1 | 34.9 | 36.5 | 90.6 | 91.0 | 89.2 | 89.4 | 42.7 | 46.3 | 50.7 | 53.6 |
| Japan | 85.2 | 85.2 | 84.4 | 84.3 | 47.4 | 45.1 | 41.7 | 41.5 | 97.1 | 96.3 | 95.9 | 95.6 | 84.1 | 84.9 | 83.1 | 82.9 |
| Korea | 77.1 | 77.6 | 77.4 | 77.6 | 28.4 | 23.1 | 20.6 | 22.1 | 92.2 | 90.5 | 90.5 | 90.7 | 71.3 | 76.8 | 78.9 | 79.6 |
| Luxembourg | 76.4 | 75.0 | 75.0 | 75.9 | 37.4 | 30.6 | 26.3 | 28.8 | 94.2 | 94.9 | 93.9 | 94.6 | 38.6 | 36.4 | 48.4 | 48.3 |
| Mexico | 84.7 | 83.7 | 82.3 | 83.0 | 67.7 | 61.7 | 60.4 | 61.2 | 95.2 | 95.3 | 94.3 | 94.7 | 79.3 | 80.9 | 77.3 | 79.2 |
| Netherlands | 83.2 | 83.8 | 83.6 | 84.2 | 71.6 | 71.4 | 67.8 | 68.5 | 93.2 | 93.5 | 93.0 | 92.9 | 50.9 | 62.6 | 68.6 | 71.6 |
| New Zealand | 83.2 | 84.9 | 83.6 | 83.2 | 65.9 | 67.2 | 62.8 | 62.1 | 91.2 | 92.1 | 91.8 | 91.2 | 71.9 | 81.9 | 82.8 | 83.1 |
| Norway[a] | 84.8 | 81.8 | 80.1 | 80.7 | 67.5 | 58.6 | 55.6 | 57.1 | 91.4 | 90.9 | 89.7 | 89.6 | 74.4 | 74.7 | 73.9 | 76.0 |
| Poland | 71.7 | 70.0 | 72.6 | 73.3 | 40.9 | 36.5 | 38.7 | 38.5 | 88.3 | 87.9 | 89.7 | 90.0 | 40.4 | 44.8 | 51.6 | 53.5 |
| Portugal | 78.9 | 79.4 | 78.5 | 77.9 | 50.5 | 45.3 | 41.1 | 40.1 | 92.4 | 92.8 | 92.3 | 92.0 | 64.4 | 63.0 | 61.6 | 60.3 |
| Slovak Republic | 76.8 | 75.8 | 76.7 | 77.1 | 49.4 | 38.7 | 37.3 | 37.1 | 93.9 | 93.0 | 93.5 | 93.8 | 41.0 | 56.9 | 58.9 | 60.3 |
| Slovenia | .. | 75.8 | 73.9 | 73.7 | .. | 47.6 | 42.0 | 38.1 | .. | 91.3 | 91.8 | 92.4 | .. | 46.7 | 42.7 | 43.6 |
| Spain[a] | 80.4 | 82.7 | 81.5 | 81.3 | 53.6 | 57.2 | 46.7 | 44.4 | 93.0 | 92.6 | 92.6 | 92.7 | 60.5 | 63.1 | 63.7 | 63.8 |
| Sweden[a] | 81.5 | 81.4 | 82.4 | 82.6 | 54.4 | 51.5 | 53.0 | 51.6 | 90.7 | 92.9 | 93.2 | 93.5 | 72.6 | 76.4 | 80.1 | 81.0 |
| Switzerland | 89.4 | 88.2 | 88.7 | 88.8 | 70.5 | 70.2 | 69.3 | 69.3 | 96.8 | 95.8 | 95.9 | 95.9 | 79.1 | 78.4 | 81.7 | 82.0 |
| Turkey | 76.9 | 74.4 | 76.4 | 75.8 | 57.6 | 51.6 | 52.3 | 50.8 | 89.5 | 88.1 | 90.0 | 89.5 | 53.4 | 42.9 | 48.4 | 49.1 |
| United Kingdom[a] | 84.1 | 83.3 | 82.7 | 83.2 | 73.6 | 68.8 | 65.5 | 66.2 | 91.9 | 91.7 | 91.7 | 92.0 | 63.2 | 68.9 | 68.6 | 69.4 |
| United States[a] | 83.9 | 81.7 | 78.9 | 78.8 | 68.6 | 61.5 | 56.6 | 56.5 | 91.6 | 90.9 | 88.7 | 88.7 | 67.3 | 69.6 | 69.3 | 69.9 |
| OECD[c] | 80.9 | 80.3 | 79.5 | 79.7 | 57.0 | 53.6 | 51.6 | 51.5 | 92.6 | 92.2 | 91.4 | 91.5 | 62.5 | 66.7 | 67.6 | 68.7 |
| Brazil | .. | 84.9 | 83.5 | .. | .. | 72.2 | 67.3 | .. | .. | 92.8 | 92.6 | .. | .. | 72.2 | 71.6 | .. |
| Russian Fed. | 75.4 | 76.9 | 77.8 | 78.1 | 47.0 | 42.7 | 45.7 | 43.8 | 90.9 | 92.0 | 92.8 | 93.3 | 50.4 | 66.3 | 60.6 | 60.6 |
| South Africa | .. | 64.3 | 61.2 | 61.7 | .. | 32.0 | 27.1 | 27.4 | .. | 84.0 | 81.9 | 82.3 | .. | 59.1 | 51.3 | 51.1 |

## Table C. **Labour force participation rates by selected age groups** *(cont.)*

As a percentage of the female population in each age group

| | Women (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 65.4 | 69.5 | 70.5 | 70.4 | 68.9 | 69.8 | 67.7 | 66.8 | 70.5 | 74.8 | 75.7 | 75.6 | 35.6 | 48.7 | 55.0 | 55.6 |
| Austria | 61.8 | 67.8 | 69.5 | 70.3 | 50.8 | 56.7 | 55.0 | 55.3 | 76.3 | 81.1 | 83.4 | 84.3 | 17.6 | 28.9 | 33.7 | 35.0 |
| Belgium | 56.6 | 60.4 | 61.1 | 61.3 | 32.6 | 31.6 | 29.8 | 27.9 | 73.2 | 78.0 | 78.7 | 79.1 | 15.8 | 27.5 | 33.0 | 34.9 |
| Canada | 70.4 | 74.1 | 74.2 | 74.3 | 62.9 | 66.5 | 64.4 | 63.6 | 78.5 | 82.1 | 82.1 | 82.3 | 41.4 | 53.2 | 57.5 | 58.5 |
| Chile | 39.1 | 44.4 | 53.9 | 54.6 | 24.2 | 24.8 | 32.0 | 31.6 | 47.3 | 54.6 | 65.5 | 65.8 | 25.5 | 33.7 | 43.2 | 46.8 |
| Czech Republic | 63.7 | 61.5 | 62.2 | 63.5 | 40.6 | 26.9 | 24.2 | 25.9 | 81.8 | 80.3 | 80.4 | 80.9 | 23.7 | 35.2 | 39.4 | 41.6 |
| Denmark | 75.9 | 76.4 | 76.1 | 75.8 | 68.8 | 69.1 | 67.1 | 64.0 | 84.3 | 85.3 | 84.7 | 84.9 | 48.2 | 55.1 | 58.0 | 58.9 |
| Estonia | 65.3 | 68.5 | 71.4 | 71.4 | 35.4 | 32.3 | 36.8 | 38.0 | 83.5 | 83.5 | 84.7 | 83.3 | 38.5 | 60.8 | 62.9 | 64.7 |
| Finland | 72.1 | 73.9 | 72.7 | 73.4 | 51.1 | 53.7 | 50.6 | 51.9 | 85.0 | 85.6 | 84.4 | 84.2 | 45.2 | 58.3 | 60.5 | 62.8 |
| France | 62.5 | 65.2 | 66.2 | 66.7 | 32.6 | 35.0 | 34.9 | 34.5 | 78.6 | 82.3 | 83.4 | 83.4 | 28.1 | 37.8 | 41.8 | 44.8 |
| Germany | 63.3 | 69.4 | 71.8 | 71.7 | 48.2 | 49.0 | 50.0 | 48.1 | 76.9 | 80.6 | 82.1 | 82.2 | 33.5 | 48.9 | 56.7 | 58.0 |
| Greece | 49.7 | 54.9 | 57.5 | 58.4 | 35.4 | 27.6 | 26.6 | 27.2 | 61.7 | 69.1 | 72.7 | 73.9 | 25.5 | 28.2 | 29.7 | 29.9 |
| Hungary | 52.6 | 55.1 | 56.8 | 58.3 | 32.5 | 21.8 | 22.1 | 23.7 | 70.5 | 73.2 | 74.3 | 76.3 | 13.3 | 27.3 | 35.2 | 34.8 |
| Iceland[a] | 83.3 | 83.6 | 82.4 | 83.3 | 73.2 | 80.1 | 75.9 | 78.8 | 88.2 | 85.4 | 85.2 | 86.1 | 76.8 | 80.7 | 79.5 | 78.6 |
| Ireland | 56.3 | 63.5 | 62.3 | 62.2 | 49.2 | 52.7 | 41.3 | 40.9 | 65.1 | 72.2 | 71.8 | 71.7 | 27.6 | 40.8 | 46.2 | 45.7 |
| Israel[b] | 56.1 | 59.4 | 60.9 | 67.1 | 35.5 | 34.1 | 32.1 | 48.6 | 68.5 | 72.0 | 74.0 | 76.9 | 37.7 | 50.3 | 54.6 | 57.6 |
| Italy | 46.3 | 50.7 | 52.2 | 54.2 | 34.3 | 25.5 | 25.2 | 26.5 | 57.9 | 64.1 | 64.6 | 66.4 | 16.1 | 23.5 | 28.9 | 32.2 |
| Japan | 59.6 | 61.9 | 63.0 | 63.4 | 46.6 | 44.7 | 43.3 | 42.0 | 66.5 | 70.1 | 71.6 | 72.3 | 49.7 | 52.5 | 53.7 | 54.0 |
| Korea | 52.0 | 54.8 | 54.9 | 55.2 | 37.0 | 32.7 | 30.1 | 30.9 | 57.8 | 62.0 | 62.8 | 62.8 | 48.8 | 47.6 | 48.9 | 50.2 |
| Luxembourg | 51.7 | 58.9 | 60.7 | 62.8 | 30.6 | 22.3 | 23.4 | 24.7 | 64.9 | 74.7 | 77.1 | 79.2 | 16.8 | 29.1 | 32.1 | 35.2 |
| Mexico | 41.0 | 45.3 | 45.9 | 47.8 | 36.3 | 34.1 | 33.0 | 34.1 | 45.4 | 52.6 | 53.7 | 55.8 | 28.0 | 32.9 | 34.9 | 37.8 |
| Netherlands | 65.2 | 70.4 | 73.1 | 74.3 | 70.0 | 69.4 | 69.9 | 71.4 | 72.7 | 79.9 | 81.9 | 82.4 | 25.9 | 38.9 | 48.4 | 51.3 |
| New Zealand | 67.2 | 71.6 | 72.2 | 72.5 | 59.5 | 62.2 | 57.6 | 58.0 | 73.5 | 76.6 | 77.8 | 77.7 | 47.8 | 64.0 | 69.8 | 71.1 |
| Norway[a] | 76.5 | 75.9 | 75.8 | 75.9 | 61.8 | 60.3 | 56.9 | 58.2 | 83.5 | 84.0 | 84.3 | 84.0 | 61.6 | 64.6 | 66.9 | 67.5 |
| Poland | 59.9 | 56.5 | 58.9 | 59.7 | 34.8 | 29.3 | 28.1 | 28.4 | 76.5 | 75.6 | 78.6 | 79.1 | 23.7 | 20.6 | 29.0 | 31.3 |
| Portugal | 63.8 | 68.8 | 69.8 | 70.1 | 40.8 | 38.4 | 36.4 | 35.5 | 77.4 | 82.8 | 84.5 | 85.1 | 41.9 | 46.7 | 46.5 | 47.0 |
| Slovak Republic | 63.2 | 60.7 | 61.0 | 61.7 | 42.6 | 30.1 | 22.8 | 23.6 | 82.9 | 80.5 | 80.4 | 80.3 | 10.7 | 23.3 | 34.6 | 38.0 |
| Slovenia | .. | 66.6 | 66.5 | 66.9 | .. | 35.4 | 32.3 | 30.0 | .. | 87.3 | 88.4 | 89.1 | .. | 23.1 | 23.7 | 26.5 |
| Spain[a] | 52.9 | 62.3 | 67.9 | 68.8 | 43.3 | 47.4 | 43.1 | 41.1 | 62.8 | 72.7 | 79.3 | 80.6 | 22.6 | 32.5 | 41.7 | 43.8 |
| Sweden[a] | 76.4 | 76.8 | 77.4 | 77.9 | 51.2 | 52.6 | 52.7 | 53.4 | 85.6 | 87.1 | 87.3 | 87.6 | 65.9 | 69.6 | 72.3 | 73.1 |
| Switzerland | 71.7 | 75.0 | 76.7 | 77.2 | 66.3 | 64.5 | 67.0 | 65.4 | 78.0 | 81.9 | 83.4 | 84.1 | 51.5 | 60.3 | 62.1 | 63.5 |
| Turkey | 28.0 | 25.7 | 31.5 | 32.3 | 28.1 | 24.4 | 26.8 | 25.9 | 28.9 | 28.0 | 35.7 | 37.3 | 21.6 | 14.8 | 18.2 | 18.3 |
| United Kingdom[a] | 68.9 | 69.8 | 70.4 | 71.0 | 65.7 | 62.7 | 59.7 | 60.4 | 76.2 | 77.6 | 79.0 | 79.0 | 42.5 | 49.9 | 51.0 | 53.1 |
| United States[a] | 70.7 | 69.1 | 67.8 | 67.6 | 63.0 | 57.2 | 53.3 | 53.2 | 76.7 | 75.4 | 74.7 | 74.5 | 51.9 | 58.3 | 59.5 | 59.4 |
| OECD[c] | 59.1 | 60.9 | 61.8 | 62.3 | 46.5 | 44.4 | 43.1 | 43.2 | 67.9 | 70.1 | 71.2 | 71.7 | 38.3 | 45.3 | 48.5 | 49.7 |
| Brazil | .. | 62.8 | 60.8 | .. | .. | 54.7 | 50.8 | .. | .. | 70.2 | 69.1 | .. | .. | 40.6 | 38.4 | .. |
| Russian Fed. | 65.7 | 69.2 | 68.1 | 68.2 | 39.4 | 36.0 | 36.7 | 35.1 | 84.7 | 86.6 | 86.3 | 86.7 | 27.7 | 44.2 | 40.1 | 40.0 |
| South Africa | .. | 50.8 | 47.9 | 48.3 | .. | 26.6 | 23.3 | 22.9 | .. | 66.2 | 63.4 | 64.1 | .. | 33.3 | 31.4 | 32.1 |

*a)* The lower age limit is 16 instead of 15 for Iceland up to 2008, Italy after 2009, Norway up to 2005 and Sweden up to 2006.

*b)* Ratios are under-estimated prior to 2012. See details in the PDF reported below.

*c)* Weighted average.

*Source and definitions* : *OECD Online Employment Database* : *www.oecd.org/employment/database* and *www.oecd.org/els/emp/lfsnotes_sources.pdf.*

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## Table D. **Unemployment rates by selected age groups**

As a percentage of the total labour force in each age group

| | Total (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 6.4 | 4.5 | 5.2 | 5.4 | 12.1 | 9.4 | 11.3 | 11.7 | 5.1 | 3.4 | 3.9 | 4.0 | 4.3 | 2.7 | 3.3 | 3.5 |
| Austria | 3.5 | 4.5 | 4.2 | 4.4 | 5.1 | 8.7 | 8.3 | 8.7 | 3.1 | 3.8 | 3.6 | 3.8 | 5.2 | 3.0 | 3.2 | 3.0 |
| Belgium | 6.6 | 7.5 | 7.2 | 7.6 | 15.2 | 18.8 | 18.7 | 19.8 | 5.8 | 6.6 | 6.4 | 6.7 | 3.2 | 4.2 | 4.0 | 4.5 |
| Canada | 6.9 | 6.1 | 7.5 | 7.3 | 12.7 | 11.2 | 14.2 | 14.3 | 5.8 | 5.1 | 6.2 | 6.0 | 5.5 | 5.0 | 6.7 | 6.3 |
| Chile | 9.4 | 7.4 | 7.4 | 6.7 | 21.3 | 17.8 | 17.5 | 16.3 | 7.6 | 6.0 | 6.0 | 5.5 | 5.6 | 3.8 | 3.9 | 3.5 |
| Czech Republic | 8.8 | 5.4 | 6.8 | 7.0 | 17.0 | 10.7 | 18.0 | 19.5 | 7.7 | 4.9 | 5.9 | 6.1 | 5.2 | 4.6 | 5.8 | 5.8 |
| Denmark | 4.5 | 3.8 | 7.7 | 7.7 | 6.7 | 7.5 | 14.2 | 14.1 | 4.1 | 3.1 | 6.6 | 6.7 | 4.0 | 3.4 | 5.7 | 5.5 |
| Estonia | 13.8 | 4.8 | 12.7 | 10.3 | 23.0 | 9.8 | 21.6 | 19.9 | 12.8 | 4.2 | 11.6 | 9.6 | 9.6 | 3.5 | 11.6 | 7.0 |
| Finland | 9.8 | 6.9 | 7.9 | 7.8 | 20.3 | 15.7 | 18.9 | 17.8 | 8.0 | 5.3 | 6.2 | 6.2 | 9.4 | 6.5 | 6.5 | 6.4 |
| France | 10.3 | 8.0 | 9.3 | 9.9 | 20.6 | 19.1 | 22.0 | 23.8 | 9.3 | 7.0 | 8.0 | 8.6 | 7.4 | 5.1 | 6.5 | 7.1 |
| Germany | 7.8 | 8.7 | 6.0 | 5.5 | 8.4 | 11.7 | 8.5 | 8.1 | 7.0 | 8.0 | 5.5 | 5.1 | 12.3 | 10.3 | 6.5 | 5.9 |
| Greece | 11.3 | 8.4 | 17.9 | 24.5 | 29.5 | 22.9 | 44.4 | 55.3 | 9.6 | 7.8 | 17.1 | 23.6 | 3.8 | 3.4 | 8.5 | 13.6 |
| Hungary | 6.4 | 7.4 | 11.0 | 11.0 | 12.7 | 18.0 | 26.1 | 28.1 | 5.7 | 6.8 | 10.1 | 10.0 | 3.0 | 4.2 | 8.7 | 7.9 |
| Iceland[a] | 2.3 | 2.3 | 7.2 | 6.2 | 4.7 | 7.2 | 14.6 | 13.6 | 1.7 | 1.3 | 5.6 | 4.6 | 1.7 | 0.9 | 5.4 | 4.3 |
| Ireland | 4.7 | 4.9 | 14.9 | 15.3 | 7.9 | 10.3 | 29.9 | 33.0 | 4.0 | 4.0 | 13.5 | 13.6 | 2.6 | 2.3 | 9.1 | 10.1 |
| Israel | 8.9 | 7.4 | 5.7 | 7.0 | 16.9 | 16.1 | 11.6 | 12.1 | 7.5 | 6.2 | 5.1 | 6.1 | 6.8 | 5.3 | 4.2 | 4.8 |
| Italy | 10.6 | 6.2 | 8.5 | 10.8 | 29.7 | 20.3 | 29.1 | 35.3 | 8.5 | 5.3 | 7.5 | 9.6 | 4.5 | 2.4 | 3.9 | 5.3 |
| Japan | 5.0 | 4.1 | 4.8 | 4.6 | 9.2 | 7.7 | 8.0 | 7.9 | 4.1 | 3.7 | 4.4 | 4.3 | 5.6 | 3.4 | 4.4 | 4.1 |
| Korea | 4.6 | 3.4 | 3.5 | 3.3 | 10.8 | 8.8 | 9.6 | 9.0 | 4.0 | 3.1 | 3.2 | 3.0 | 2.9 | 2.2 | 2.5 | 2.5 |
| Luxembourg | 2.4 | 4.1 | 4.9 | 5.2 | 6.4 | 15.2 | 16.8 | 18.8 | 2.0 | 3.4 | 4.3 | 4.5 | 1.4 | 2.1 | 2.8 | 2.1 |
| Mexico | 2.6 | 3.5 | 5.4 | 5.0 | 5.1 | 6.7 | 9.8 | 9.4 | 1.8 | 2.7 | 4.4 | 4.0 | 1.4 | 1.6 | 2.9 | 2.7 |
| Netherlands | 3.1 | 3.6 | 4.4 | 5.3 | 6.1 | 7.0 | 7.7 | 9.5 | 2.5 | 2.8 | 3.8 | 4.4 | 2.1 | 4.0 | 4.1 | 4.7 |
| New Zealand | 6.2 | 3.8 | 6.7 | 7.2 | 13.6 | 10.1 | 17.3 | 17.7 | 4.7 | 2.6 | 4.9 | 5.3 | 4.7 | 1.5 | 3.3 | 4.0 |
| Norway[a] | 3.5 | 2.6 | 3.3 | 3.3 | 10.2 | 7.3 | 8.6 | 8.6 | 2.6 | 1.9 | 2.7 | 2.7 | 1.3 | 1.0 | 1.3 | 1.3 |
| Poland | 16.4 | 9.7 | 9.8 | 10.2 | 35.2 | 21.7 | 25.8 | 26.5 | 13.9 | 8.4 | 8.2 | 8.8 | 9.4 | 6.8 | 6.9 | 7.4 |
| Portugal | 4.2 | 8.5 | 13.4 | 16.4 | 8.6 | 16.6 | 30.1 | 37.7 | 3.5 | 7.8 | 12.0 | 14.8 | 3.2 | 6.5 | 10.8 | 12.8 |
| Slovak Republic | 18.8 | 11.0 | 13.6 | 14.0 | 37.0 | 20.1 | 33.2 | 34.0 | 15.5 | 10.1 | 12.0 | 12.4 | 12.3 | 8.1 | 10.0 | 11.2 |
| Slovenia | .. | 5.0 | 8.3 | 9.0 | .. | 10.1 | 15.7 | 20.6 | .. | 4.5 | 7.8 | 8.3 | .. | 3.3 | 6.3 | 6.2 |
| Spain[a] | 13.9 | 8.3 | 21.8 | 25.2 | 25.3 | 18.2 | 46.4 | 53.2 | 12.3 | 7.2 | 20.2 | 23.6 | 9.4 | 5.9 | 15.0 | 17.9 |
| Sweden[a] | 5.9 | 6.2 | 7.9 | 8.1 | 11.7 | 19.2 | 22.8 | 23.7 | 4.9 | 4.4 | 5.7 | 5.9 | 6.1 | 3.9 | 5.2 | 5.2 |
| Switzerland | 2.7 | 3.7 | 4.1 | 4.3 | 4.9 | 7.1 | 7.7 | 8.4 | 2.3 | 3.1 | 3.6 | 3.7 | 2.8 | 3.1 | 3.3 | 3.1 |
| Turkey | 6.7 | 10.5 | 10.0 | 9.4 | 13.1 | 20.0 | 18.4 | 17.5 | 4.9 | 8.5 | 8.6 | 8.1 | 2.1 | 4.3 | 4.9 | 4.5 |
| United Kingdom[a] | 5.5 | 5.3 | 8.0 | 8.1 | 11.7 | 14.2 | 20.0 | 21.0 | 4.4 | 3.7 | 6.1 | 6.0 | 4.4 | 3.3 | 4.8 | 4.9 |
| United States[a] | 4.0 | 4.7 | 9.1 | 8.2 | 9.3 | 10.5 | 17.3 | 16.2 | 3.1 | 3.7 | 7.9 | 7.0 | 2.5 | 3.1 | 6.6 | 5.9 |
| OECD[b] | 6.3 | 5.8 | 8.2 | 8.2 | 12.1 | 12.0 | 16.2 | 16.3 | 5.4 | 4.9 | 7.2 | 7.2 | 4.9 | 4.0 | 5.8 | 5.7 |
| Brazil | .. | 8.3 | 6.9 | .. | .. | 16.8 | 15.4 | .. | .. | 6.1 | 5.0 | .. | .. | 2.9 | 2.3 | .. |
| Russian Fed. | 10.7 | 6.1 | 6.5 | 5.5 | 20.7 | 14.4 | 15.2 | 14.8 | 9.2 | 5.1 | 5.6 | 4.6 | 7.3 | 3.1 | 4.4 | 3.3 |
| South Africa | .. | 22.3 | 24.9 | 25.1 | .. | 46.5 | 49.8 | 51.5 | .. | 18.6 | 21.9 | 21.9 | .. | 5.6 | 6.0 | 6.9 |

## Table D. **Unemployment rates by selected age groups** *(cont.)*

As a percentage of the male labour force in each age group

| | Men (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 6.6 | 4.1 | 5.0 | 5.3 | 12.8 | 9.5 | 11.9 | 12.4 | 5.2 | 2.9 | 3.6 | 3.8 | 5.1 | 2.8 | 3.7 | 3.7 |
| Austria | 3.3 | 4.0 | 4.1 | 4.4 | 5.0 | 8.3 | 7.9 | 8.8 | 2.8 | 3.3 | 3.4 | 3.7 | 5.4 | 2.9 | 3.8 | 3.5 |
| Belgium | 5.3 | 6.7 | 7.2 | 7.7 | 12.9 | 17.1 | 18.7 | 20.4 | 4.6 | 5.9 | 6.4 | 6.9 | 3.4 | 3.6 | 3.9 | 4.1 |
| Canada | 7.0 | 6.4 | 8.0 | 7.8 | 13.8 | 12.3 | 15.9 | 15.9 | 5.7 | 5.3 | 6.4 | 6.3 | 5.5 | 5.2 | 7.1 | 6.7 |
| Chile | 9.0 | 6.5 | 6.3 | 5.7 | 19.4 | 16.1 | 15.2 | 14.3 | 7.4 | 5.2 | 5.0 | 4.4 | 6.3 | 3.8 | 3.8 | 3.5 |
| Czech Republic | 7.4 | 4.3 | 5.9 | 6.1 | 16.7 | 10.6 | 18.1 | 19.9 | 6.0 | 3.5 | 4.6 | 4.8 | 5.0 | 4.5 | 5.9 | 5.7 |
| Denmark | 4.0 | 3.5 | 7.9 | 7.7 | 6.5 | 7.6 | 15.7 | 14.8 | 3.5 | 2.7 | 6.3 | 6.6 | 3.9 | 3.0 | 6.6 | 5.7 |
| Estonia | 14.7 | 5.5 | 13.3 | 11.1 | 22.6 | 11.7 | 22.4 | 21.3 | 13.6 | 4.2 | 11.5 | 9.8 | 12.1 | 6.8 | 14.5 | 9.1 |
| Finland | 9.1 | 6.5 | 8.5 | 8.3 | 18.9 | 14.8 | 19.3 | 17.7 | 7.2 | 4.8 | 6.7 | 6.6 | 9.3 | 6.9 | 7.6 | 8.1 |
| France | 8.6 | 7.5 | 8.8 | 9.8 | 19.0 | 18.3 | 21.1 | 23.9 | 7.5 | 6.3 | 7.5 | 8.4 | 7.3 | 5.3 | 6.5 | 7.3 |
| Germany | 7.6 | 8.6 | 6.3 | 5.8 | 9.2 | 12.2 | 9.1 | 8.8 | 6.6 | 7.8 | 5.7 | 5.2 | 11.5 | 9.7 | 6.6 | 6.2 |
| Greece | 7.5 | 5.3 | 15.2 | 21.6 | 22.1 | 15.7 | 38.5 | 48.4 | 6.1 | 4.7 | 14.5 | 20.9 | 3.5 | 2.9 | 8.7 | 13.8 |
| Hungary | 7.1 | 7.2 | 11.0 | 11.3 | 13.8 | 17.6 | 27.2 | 28.8 | 6.2 | 6.5 | 9.8 | 10.2 | 3.7 | 4.5 | 9.5 | 8.2 |
| Iceland[a] | 1.8 | 2.3 | 8.1 | 6.5 | 5.7 | 8.0 | 18.4 | 14.7 | 1.1 | 1.2 | 5.6 | 4.8 | 0.5 | 0.9 | 7.1 | 4.6 |
| Ireland | 4.7 | 5.0 | 18.2 | 18.6 | 7.6 | 10.7 | 35.8 | 38.9 | 4.2 | 4.2 | 16.9 | 16.8 | 2.5 | 2.4 | 11.6 | 13.5 |
| Israel | 8.6 | 6.9 | 5.7 | 6.8 | 17.1 | 15.0 | 11.8 | 11.6 | 7.1 | 5.7 | 5.1 | 6.1 | 8.1 | 5.9 | 4.6 | 5.1 |
| Italy | 8.2 | 5.0 | 7.7 | 10.0 | 25.4 | 18.2 | 27.1 | 33.7 | 6.3 | 4.0 | 6.6 | 8.6 | 4.4 | 2.6 | 4.6 | 6.0 |
| Japan | 5.1 | 4.1 | 5.0 | 4.7 | 10.4 | 8.3 | 8.9 | 8.7 | 3.9 | 3.6 | 4.4 | 4.3 | 6.8 | 4.1 | 5.3 | 4.9 |
| Korea | 5.1 | 3.8 | 3.7 | 3.5 | 13.5 | 11.4 | 12.1 | 9.7 | 4.5 | 3.6 | 3.4 | 3.2 | 3.9 | 2.7 | 3.0 | 3.0 |
| Luxembourg | 1.8 | 3.6 | 3.9 | 4.6 | 5.7 | 13.5 | 13.3 | 18.9 | 1.4 | 2.8 | 3.3 | 3.8 | 2.0 | 2.3 | 3.0 | 1.9 |
| Mexico | 2.3 | 3.3 | 5.5 | 5.0 | 4.4 | 6.2 | 9.5 | 9.1 | 1.5 | 2.5 | 4.4 | 3.9 | 1.5 | 2.0 | 3.7 | 3.3 |
| Netherlands | 2.5 | 3.2 | 4.5 | 5.3 | 5.3 | 6.3 | 7.5 | 8.9 | 1.9 | 2.3 | 3.9 | 4.6 | 2.5 | 4.2 | 4.2 | 5.0 |
| New Zealand | 6.4 | 3.5 | 6.6 | 6.8 | 14.6 | 10.0 | 18.2 | 17.3 | 4.6 | 2.2 | 4.4 | 4.8 | 5.5 | 1.5 | 3.2 | 4.2 |
| Norway[a] | 3.6 | 2.6 | 3.5 | 3.7 | 9.5 | 7.9 | 9.3 | 10.0 | 2.9 | 1.9 | 2.9 | 3.0 | 1.8 | 1.1 | 1.4 | 1.6 |
| Poland | 14.6 | 9.1 | 9.1 | 9.5 | 33.3 | 20.0 | 23.6 | 24.1 | 12.1 | 7.8 | 7.5 | 8.0 | 9.1 | 7.4 | 7.4 | 8.0 |
| Portugal | 3.3 | 7.0 | 13.2 | 16.6 | 6.2 | 13.5 | 28.7 | 36.4 | 2.7 | 6.1 | 11.7 | 14.8 | 3.6 | 7.1 | 12.1 | 14.7 |
| Slovak Republic | 19.0 | 9.8 | 13.6 | 13.6 | 39.7 | 20.3 | 33.0 | 35.0 | 15.2 | 8.6 | 11.7 | 11.5 | 13.5 | 7.7 | 10.7 | 11.0 |
| Slovenia | .. | 4.1 | 8.3 | 8.5 | .. | 9.4 | 15.0 | 20.3 | .. | 3.4 | 7.6 | 7.6 | .. | 3.0 | 7.5 | 6.6 |
| Spain[a] | 9.6 | 6.4 | 21.3 | 24.9 | 19.4 | 15.2 | 48.2 | 54.4 | 8.0 | 5.4 | 19.6 | 23.2 | 8.6 | 4.9 | 15.3 | 17.9 |
| Sweden[a] | 6.3 | 6.0 | 8.0 | 8.4 | 12.1 | 18.6 | 23.3 | 25.0 | 5.3 | 4.1 | 5.6 | 6.1 | 6.8 | 4.3 | 5.9 | 5.7 |
| Switzerland | 2.4 | 3.0 | 3.8 | 4.1 | 5.7 | 6.8 | 7.6 | 8.8 | 1.7 | 2.3 | 3.2 | 3.4 | 3.0 | 2.6 | 3.2 | 3.1 |
| Turkey | 6.8 | 10.2 | 9.4 | 8.7 | 13.7 | 19.6 | 17.1 | 16.3 | 5.0 | 8.5 | 8.0 | 7.5 | 2.9 | 5.4 | 6.1 | 5.6 |
| United Kingdom[a] | 6.1 | 5.6 | 8.7 | 8.6 | 13.2 | 15.7 | 22.0 | 23.8 | 4.8 | 3.7 | 6.4 | 6.0 | 5.5 | 4.1 | 6.1 | 5.8 |
| United States[a] | 3.9 | 4.8 | 9.5 | 8.3 | 9.7 | 11.6 | 18.7 | 17.6 | 2.9 | 3.7 | 8.2 | 6.9 | 2.4 | 3.2 | 7.1 | 6.3 |
| OECD[b] | 5.9 | 5.6 | 8.2 | 8.1 | 11.9 | 12.2 | 16.7 | 16.8 | 4.8 | 4.6 | 7.1 | 7.0 | 5.3 | 4.2 | 6.3 | 6.1 |
| Brazil | .. | 6.2 | 5.0 | .. | .. | 12.9 | 12.2 | .. | .. | 4.2 | 3.3 | .. | .. | 3.0 | 2.2 | .. |
| Russian Fed. | 10.9 | 6.4 | 7.0 | 5.8 | 19.5 | 14.5 | 15.0 | 14.5 | 9.6 | 5.4 | 6.0 | 4.9 | 7.5 | 3.5 | 5.1 | 4.1 |
| South Africa | .. | 18.8 | 22.5 | 22.9 | .. | 41.1 | 45.4 | 47.1 | .. | 15.1 | 19.6 | 19.8 | .. | 6.4 | 6.9 | 8.1 |

## Table D. **Unemployment rates by selected age groups** *(cont.)*

As a percentage of the female labour force in each age group

| | Women (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 6.1 | 4.8 | 5.4 | 5.4 | 11.3 | 9.2 | 10.8 | 11.0 | 4.9 | 3.9 | 4.4 | 4.3 | 3.1 | 2.6 | 2.9 | 3.1 |
| Austria | 3.8 | 5.1 | 4.4 | 4.4 | 5.2 | 9.1 | 8.8 | 8.7 | 3.5 | 4.5 | 3.8 | 3.8 | 4.7 | 3.1 | 2.3 | 2.4 |
| Belgium | 8.3 | 8.5 | 7.2 | 7.4 | 18.2 | 20.9 | 18.7 | 18.9 | 7.4 | 7.4 | 6.3 | 6.6 | 2.8 | 5.3 | 4.2 | 5.1 |
| Canada | 6.7 | 5.7 | 7.1 | 6.9 | 11.4 | 10.0 | 12.4 | 12.6 | 5.8 | 4.8 | 6.0 | 5.8 | 5.5 | 4.9 | 6.1 | 5.8 |
| Chile | 10.2 | 8.8 | 8.9 | 8.1 | 24.8 | 20.8 | 21.1 | 19.1 | 8.1 | 7.3 | 7.4 | 7.0 | 3.4 | 3.6 | 4.1 | 3.5 |
| Czech Republic | 10.6 | 6.8 | 8.0 | 8.3 | 17.4 | 11.0 | 17.9 | 19.0 | 9.9 | 6.7 | 7.6 | 7.8 | 5.4 | 4.8 | 5.7 | 6.0 |
| Denmark | 5.0 | 4.2 | 7.6 | 7.7 | 7.0 | 7.4 | 12.7 | 13.5 | 4.7 | 3.6 | 6.9 | 6.8 | 4.2 | 4.0 | 4.7 | 5.3 |
| Estonia | 12.8 | 4.0 | 12.1 | 9.5 | 23.7 | 7.1 | 20.7 | 18.0 | 12.1 | 4.3 | 11.7 | 9.4 | 6.5 | 0.9 | 9.2 | 5.4 |
| Finland | 10.6 | 7.3 | 7.2 | 7.1 | 21.8 | 16.8 | 18.4 | 18.0 | 8.8 | 5.8 | 5.5 | 5.7 | 9.4 | 6.0 | 5.4 | 4.9 |
| France | 12.3 | 8.6 | 9.7 | 10.1 | 22.6 | 20.1 | 23.1 | 23.7 | 11.4 | 7.7 | 8.6 | 9.0 | 7.4 | 4.8 | 6.6 | 6.9 |
| Germany | 8.1 | 8.9 | 5.7 | 5.3 | 7.5 | 11.1 | 7.8 | 7.4 | 7.5 | 8.1 | 5.2 | 4.9 | 13.6 | 11.2 | 6.4 | 5.6 |
| Greece | 16.9 | 12.9 | 21.6 | 28.3 | 37.7 | 32.1 | 51.5 | 63.2 | 14.7 | 12.0 | 20.7 | 27.2 | 4.4 | 4.3 | 8.1 | 13.2 |
| Hungary | 5.7 | 7.7 | 11.0 | 10.7 | 11.2 | 18.6 | 24.6 | 27.3 | 5.0 | 7.2 | 10.4 | 9.7 | 1.6 | 3.9 | 7.8 | 7.6 |
| Iceland[a] | 2.8 | 2.4 | 6.2 | 5.8 | 3.6 | 6.3 | 10.7 | 12.4 | 2.4 | 1.6 | 5.7 | 4.4 | 3.2 | 0.9 | 3.6 | 4.0 |
| Ireland | 4.7 | 4.7 | 10.8 | 11.2 | 8.3 | 9.8 | 23.7 | 26.7 | 3.8 | 3.7 | 9.4 | 9.7 | 2.9 | 2.0 | 5.6 | 5.4 |
| Israel | 9.3 | 8.0 | 5.7 | 7.1 | 16.8 | 17.0 | 11.3 | 12.7 | 8.0 | 6.8 | 5.1 | 6.2 | 4.9 | 4.6 | 3.7 | 4.4 |
| Italy | 14.6 | 7.9 | 9.7 | 12.0 | 35.4 | 23.3 | 32.1 | 37.5 | 12.1 | 7.1 | 8.8 | 11.0 | 4.7 | 2.1 | 2.7 | 4.2 |
| Japan | 4.7 | 3.9 | 4.4 | 4.3 | 7.9 | 7.1 | 7.1 | 7.1 | 4.4 | 3.9 | 4.4 | 4.3 | 3.6 | 2.4 | 3.1 | 3.0 |
| Korea | 3.8 | 2.8 | 3.2 | 3.1 | 9.0 | 7.1 | 8.1 | 8.5 | 3.0 | 2.4 | 2.9 | 2.6 | 1.6 | 1.4 | 1.7 | 1.7 |
| Luxembourg | 3.2 | 4.7 | 6.3 | 5.9 | 7.3 | 17.5 | 20.8 | 18.6 | 2.9 | 4.0 | 5.5 | 5.3 | 0.0 | 1.7 | 2.4 | 2.5 |
| Mexico | 3.4 | 3.8 | 5.4 | 5.1 | 6.2 | 7.5 | 10.4 | 9.9 | 2.4 | 3.1 | 4.5 | 4.2 | 0.9 | 0.6 | 1.5 | 1.6 |
| Netherlands | 3.9 | 4.1 | 4.4 | 5.2 | 7.0 | 7.8 | 7.9 | 10.0 | 3.3 | 3.3 | 3.6 | 4.2 | 1.5 | 3.8 | 4.0 | 4.4 |
| New Zealand | 6.0 | 4.0 | 6.9 | 7.6 | 12.4 | 10.1 | 16.1 | 18.0 | 4.8 | 3.0 | 5.5 | 5.9 | 3.6 | 1.4 | 3.4 | 3.8 |
| Norway[a] | 3.2 | 2.5 | 3.1 | 2.8 | 10.9 | 6.6 | 7.9 | 7.2 | 2.3 | 2.0 | 2.6 | 2.3 | 0.7 | 0.8 | 1.2 | 0.9 |
| Poland | 18.4 | 10.4 | 10.5 | 11.0 | 37.3 | 23.8 | 28.8 | 30.0 | 16.0 | 9.1 | 9.1 | 9.7 | 9.7 | 5.7 | 6.2 | 6.6 |
| Portugal | 5.2 | 10.1 | 13.5 | 16.2 | 11.6 | 20.3 | 31.7 | 39.2 | 4.4 | 9.6 | 12.3 | 14.8 | 2.6 | 5.8 | 9.4 | 10.7 |
| Slovak Republic | 18.6 | 12.6 | 13.6 | 14.5 | 33.8 | 19.9 | 33.6 | 32.5 | 15.8 | 11.9 | 12.4 | 13.4 | 8.7 | 9.1 | 9.1 | 11.6 |
| Slovenia | .. | 6.0 | 8.3 | 9.5 | .. | 11.2 | 16.8 | 21.0 | .. | 5.6 | 7.9 | 9.0 | .. | 3.8 | 4.0 | 5.4 |
| Spain[a] | 20.6 | 10.9 | 22.3 | 25.5 | 32.9 | 21.9 | 44.4 | 51.8 | 18.9 | 9.7 | 20.9 | 24.0 | 11.3 | 7.7 | 14.6 | 17.8 |
| Sweden[a] | 5.4 | 6.5 | 7.8 | 7.8 | 11.3 | 19.8 | 22.2 | 22.3 | 4.5 | 4.7 | 5.8 | 5.7 | 5.4 | 3.5 | 4.5 | 4.6 |
| Switzerland | 3.1 | 4.6 | 4.5 | 4.6 | 4.1 | 7.4 | 7.8 | 8.1 | 3.0 | 4.1 | 4.1 | 4.2 | 2.5 | 3.8 | 3.4 | 3.1 |
| Turkey | 6.5 | 11.3 | 11.6 | 11.0 | 11.9 | 20.8 | 20.7 | 19.9 | 4.6 | 8.8 | 9.9 | 9.6 | 0.5 | 1.1 | 1.7 | 1.8 |
| United Kingdom[a] | 4.8 | 5.0 | 7.2 | 7.5 | 10.1 | 12.5 | 17.7 | 17.9 | 4.0 | 3.8 | 5.8 | 6.0 | 2.7 | 2.2 | 3.0 | 3.8 |
| United States[a] | 4.1 | 4.6 | 8.5 | 8.0 | 8.9 | 9.4 | 15.7 | 14.7 | 3.3 | 3.8 | 7.6 | 7.1 | 2.5 | 3.0 | 6.1 | 5.6 |
| OECD[b] | 7.0 | 6.0 | 8.1 | 8.2 | 12.3 | 11.8 | 15.7 | 15.7 | 6.2 | 5.3 | 7.4 | 7.5 | 4.4 | 3.7 | 5.1 | 5.1 |
| Brazil | .. | 11.1 | 9.3 | .. | .. | 21.9 | 19.8 | .. | .. | 8.5 | 7.1 | .. | .. | 2.7 | 2.5 | .. |
| Russian Fed. | 10.5 | 5.7 | 6.1 | 5.1 | 22.2 | 14.4 | 15.5 | 15.1 | 8.8 | 4.8 | 5.2 | 4.4 | 7.1 | 2.6 | 3.7 | 2.5 |
| South Africa | .. | 26.4 | 27.8 | 27.8 | .. | 52.8 | 55.0 | 56.9 | .. | 22.6 | 24.6 | 24.4 | .. | 4.5 | 4.7 | 5.2 |

*a)* The lower age limit is 16 instead of 15 for Iceland up to 2008, Italy after 2009, Norway up to 2005 and Sweden up to 2006.

*b)* Weighted average.

*Source and definitions* : *OECD Online Employment Database* : *www.oecd.org/employment/database* and *www.oecd.org/els/emp/lfsnotes_sources.pdf.*

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## Table E. **Employment/population ratios by educational attainment, 2011**

Persons aged 25-64, as a percentage of the population in each gender

| | Total | | | Men | | | Women | | |
|---|---|---|---|---|---|---|---|---|---|
| | Less than upper secondary education | Upper secondary education | Tertiary education | Less than upper secondary education | Upper secondary education | Tertiary education | Less than upper secondary education | Upper secondary education | Tertiary education |
| Australia | 65.8 | 80.7 | 84.1 | 76.6 | 88.9 | 90.3 | 56.3 | 70.1 | 79.1 |
| Austria | 56.2 | 77.9 | 86.5 | 65.7 | 81.9 | 89.9 | 50.9 | 73.6 | 82.4 |
| Belgium | 47.7 | 74.0 | 84.2 | 57.9 | 80.7 | 86.9 | 37.0 | 66.7 | 81.8 |
| Canada | 55.0 | 74.3 | 81.6 | 63.8 | 79.3 | 85.0 | 44.2 | 68.2 | 78.8 |
| Chile | 63.4 | 72.8 | 79.4 | 83.4 | 89.2 | 87.7 | 44.9 | 57.2 | 71.2 |
| Czech Republic | 42.2 | 75.3 | 83.1 | 50.8 | 83.6 | 91.5 | 38.0 | 66.2 | 74.4 |
| Denmark | 62.6 | 79.0 | 85.8 | 70.0 | 81.5 | 88.2 | 55.3 | 75.9 | 83.9 |
| Estonia | 48.4 | 74.0 | 80.0 | 53.6 | 78.2 | 84.6 | 40.7 | 69.2 | 77.4 |
| Finland | 55.5 | 74.7 | 84.3 | 60.3 | 77.3 | 87.2 | 48.9 | 71.6 | 82.2 |
| France | 55.7 | 73.7 | 83.8 | 62.7 | 78.1 | 87.2 | 49.4 | 69.0 | 81.0 |
| Germany | 56.5 | 77.6 | 87.9 | 66.7 | 82.1 | 91.0 | 49.2 | 73.1 | 84.0 |
| Greece | 52.6 | 62.6 | 74.8 | 67.5 | 75.9 | 79.7 | 37.6 | 49.4 | 69.9 |
| Hungary | 37.7 | 66.3 | 79.3 | 46.5 | 71.8 | 84.7 | 31.5 | 60.0 | 75.2 |
| Iceland | 74.4 | 83.4 | 88.8 | 81.5 | 86.1 | 90.3 | 68.3 | 79.2 | 87.8 |
| Ireland | 45.7 | 65.1 | 80.8 | 54.2 | 71.9 | 84.8 | 35.3 | 58.3 | 77.6 |
| Israel | 45.6 | 70.9 | 82.8 | 60.6 | 76.8 | 85.9 | 28.8 | 64.5 | 80.2 |
| Italy | 50.8 | 71.9 | 79.0 | 67.9 | 81.3 | 84.9 | 33.1 | 62.6 | 74.3 |
| Japan | [a] | 72.8 | 79.6 | [a] | 85.2 | 92.0 | [a] | 60.6 | 66.9 |
| Korea | 65.2 | 70.8 | 76.9 | 77.7 | 83.7 | 89.7 | 57.2 | 57.7 | 60.5 |
| Luxembourg | 62.0 | 70.4 | 85.0 | 74.9 | 79.0 | 89.8 | 50.9 | 61.8 | 79.4 |
| Mexico | 62.5 | 71.2 | 79.3 | 87.2 | 90.1 | 87.2 | 41.7 | 55.0 | 70.5 |
| Netherlands | 62.1 | 80.0 | 87.4 | 74.4 | 84.9 | 89.6 | 50.9 | 75.2 | 85.0 |
| New Zealand | 68.0 | 82.1 | 84.4 | 76.5 | 89.1 | 90.3 | 60.5 | 72.9 | 80.0 |
| Norway | 68.0 | 81.7 | 90.5 | 72.4 | 85.4 | 91.9 | 63.3 | 76.9 | 89.3 |
| Poland | 39.8 | 65.9 | 84.7 | 49.3 | 75.0 | 89.1 | 30.8 | 56.0 | 81.7 |
| Portugal | 65.9 | 79.4 | 83.4 | 72.9 | 81.2 | 83.5 | 58.5 | 77.7 | 83.3 |
| Slovak Republic | 30.2 | 70.2 | 81.6 | 35.4 | 77.6 | 87.3 | 27.0 | 62.1 | 77.0 |
| Slovenia | 46.7 | 70.6 | 86.4 | 55.5 | 74.0 | 87.4 | 39.5 | 66.0 | 85.7 |
| Spain | 52.1 | 67.5 | 78.9 | 61.6 | 74.2 | 82.1 | 41.9 | 60.8 | 75.8 |
| Sweden | 65.2 | 83.5 | 88.7 | 74.5 | 86.7 | 89.8 | 53.0 | 79.7 | 87.8 |
| Switzerland | 68.4 | 82.5 | 88.8 | 78.7 | 89.1 | 93.5 | 61.7 | 76.7 | 81.9 |
| Turkey | 50.7 | 61.7 | 76.1 | 75.2 | 81.7 | 84.0 | 26.1 | 29.9 | 64.2 |
| United Kingdom | 55.9 | 78.2 | 83.2 | 66.1 | 82.8 | 87.7 | 47.9 | 72.9 | 78.9 |
| United States | 51.1 | 67.1 | 80.0 | 61.0 | 71.8 | 84.7 | 39.7 | 62.3 | 75.8 |
| OECD[b] | 55.5 | 73.8 | 83.0 | 66.2 | 81.1 | 87.6 | 45.5 | 65.9 | 78.4 |
| Brazil | 67.1 | 70.1 | 85.3 | 83.9 | 89.3 | 91.5 | 50.4 | 54.0 | 80.8 |
| Russian Fed. | 49.0 | 72.8 | 82.8 | 56.6 | 79.3 | 88.2 | 40.3 | 64.9 | 79.1 |

Note: The classification of the levels of education is based on the International Standard Classification of Education (ISCED 1997). ISCED 97 is an instrument for compiling statistics on education internationally and distinguishes among six levels of education (ISCED 1-6). Below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; upper secondary or post-secondary non-tertiary correspond to ISCED levels 3A, 3B, 3C long programmes, and 4; and tertiary corresponds to ISCED levels 5A, 5B and 6.

*a)* Data at the lower and upper secondary levels of education are not broken down. Individuals with lower secondary education are included in upper secondary education.

*b)* Unweighted average.

*Source:* OECD (2013), *Education at a Glance 2013 – OECD Indicators* , OECD Publishing, Paris, *http://dx.doi/org/10.1787/eag-2013-en.*

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## Table F. **Labour force participation rates by educational attainment, 2011**

Persons aged 25-64, as a percentage of the population in each gender

| | Total | | | Men | | | Women | | |
|---|---|---|---|---|---|---|---|---|---|
| | Less than upper secondary education | Upper secondary education | Tertiary education | Less than upper secondary education | Upper secondary education | Tertiary education | Less than upper secondary education | Upper secondary education | Tertiary education |
| Australia | 69.9 | 83.9 | 86.7 | 81.4 | 91.7 | 92.7 | 59.8 | 73.7 | 81.9 |
| Austria | 60.5 | 80.5 | 88.6 | 71.7 | 84.6 | 91.7 | 54.3 | 76.0 | 84.7 |
| Belgium | 54.3 | 78.4 | 87.1 | 65.7 | 84.8 | 90.1 | 42.2 | 71.4 | 84.5 |
| Canada | 62.3 | 79.8 | 85.9 | 71.9 | 85.4 | 89.4 | 50.6 | 73.0 | 83.0 |
| Chile | 66.3 | 76.6 | 83.9 | 79.6 | 92.9 | 91.9 | 47.8 | 61.1 | 76.0 |
| Czech Republic | 53.8 | 79.8 | 85.3 | 66.4 | 87.6 | 93.7 | 47.6 | 71.4 | 76.6 |
| Denmark | 68.8 | 84.0 | 90.4 | 77.0 | 86.6 | 92.6 | 60.6 | 80.8 | 88.6 |
| Estonia | 65.7 | 83.9 | 86.9 | 74.3 | 88.2 | 90.9 | 53.1 | 79.1 | 84.6 |
| Finland | 62.6 | 80.3 | 87.8 | 68.0 | 83.4 | 91.1 | 55.2 | 76.6 | 85.4 |
| France | 63.9 | 79.6 | 88.1 | 71.6 | 83.5 | 91.4 | 57.0 | 75.3 | 85.3 |
| Germany | 65.7 | 82.4 | 90.1 | 79.1 | 87.5 | 93.1 | 56.0 | 77.2 | 86.3 |
| Greece | 63.5 | 76.0 | 85.9 | 80.7 | 88.1 | 88.7 | 46.0 | 63.9 | 82.9 |
| Hungary | 49.1 | 73.3 | 82.5 | 60.2 | 79.2 | 88.2 | 41.2 | 66.6 | 78.2 |
| Iceland | 80.3 | 88.2 | 93.0 | 88.0 | 91.3 | 95.2 | 73.7 | 83.5 | 91.5 |
| Ireland | 58.4 | 76.5 | 87.0 | 72.3 | 87.5 | 92.1 | 41.2 | 65.6 | 82.8 |
| Israel | 49.2 | 75.2 | 86.2 | 65.8 | 81.4 | 89.2 | 30.6 | 68.6 | 83.6 |
| Italy | 56.1 | 76.5 | 83.3 | 74.2 | 85.6 | 88.4 | 37.3 | 67.4 | 79.3 |
| Japan | a | 76.9 | 82.4 | a | 90.5 | 95.2 | a | 63.5 | 69.3 |
| Korea | 67.0 | 73.2 | 79.2 | 80.6 | 86.9 | 92.4 | 58.2 | 59.4 | 62.4 |
| Luxembourg | 66.0 | 73.1 | 88.1 | 78.5 | 81.5 | 92.4 | 55.3 | 64.7 | 83.1 |
| Mexico | 65.1 | 74.5 | 83.3 | 91.0 | 94.2 | 91.6 | 43.3 | 57.7 | 74.2 |
| Netherlands | 65.7 | 83.2 | 89.9 | 78.6 | 88.4 | 92.3 | 53.9 | 78.0 | 87.2 |
| New Zealand | 72.8 | 85.8 | 87.5 | 81.7 | 92.6 | 93.2 | 64.8 | 77.0 | 83.3 |
| Norway | 71.6 | 83.5 | 91.8 | 76.6 | 87.4 | 93.2 | 66.3 | 78.7 | 90.6 |
| Poland | 47.8 | 72.2 | 88.7 | 58.9 | 81.2 | 92.7 | 37.5 | 62.4 | 86.0 |
| Portugal | 76.1 | 89.2 | 90.6 | 83.6 | 90.3 | 91.8 | 68.1 | 88.1 | 89.8 |
| Slovak Republic | 49.8 | 79.4 | 86.1 | 63.5 | 87.3 | 91.4 | 41.3 | 70.7 | 81.8 |
| Slovenia | 53.4 | 76.9 | 90.7 | 64.2 | 80.1 | 91.9 | 44.6 | 72.6 | 89.9 |
| Spain | 70.8 | 83.5 | 89.2 | 82.7 | 90.0 | 91.9 | 58.0 | 77.1 | 86.7 |
| Sweden | 73.0 | 88.1 | 92.2 | 82.1 | 91.3 | 93.8 | 61.1 | 84.3 | 91.1 |
| Switzerland | 74.1 | 85.3 | 91.1 | 84.9 | 92.2 | 95.5 | 66.9 | 79.3 | 84.8 |
| Turkey | 55.4 | 67.8 | 82.4 | 82.3 | 87.6 | 89.3 | 28.3 | 36.2 | 72.0 |
| United Kingdom | 62.9 | 83.1 | 86.5 | 75.3 | 88.0 | 91.3 | 53.0 | 77.6 | 82.0 |
| United States | 61.0 | 74.7 | 84.1 | 73.3 | 80.9 | 89.2 | 46.8 | 68.4 | 79.6 |
| OECD[b] | 63.1 | 79.6 | 87.1 | 75.3 | 87.0 | 91.7 | 51.6 | 71.4 | 82.6 |
| Brazil | 70.3 | 74.7 | 87.9 | 86.7 | 92.5 | 93.3 | 54.1 | 59.7 | 83.9 |
| Russian Fed. | 57.3 | 78.6 | 85.9 | 66.4 | 85.5 | 91.6 | 46.8 | 70.2 | 82.0 |

Note: The classification of the levels of education is based on the International Standard Classification of Education (ISCED 1997). ISCED 97 is an instrument for compiling statistics on education internationally and distinguishes among six levels of education (ISCED 1-6). Below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; upper secondary or post-secondary non-tertiary correspond to ISCED levels 3A, 3B, 3C long programmes, and 4; and tertiary corresponds to ISCED levels 5A, 5B and 6.

*a)* Data at the lower and upper secondary levels of education are not broken down. Individuals with lower secondary education are included in upper secondary education.

*b)* Unweighted average.

*Source:* OECD (2013), *Education at a Glance 2013 – OECD Indicators* , OECD Publishing, Paris, *http://dx.doi/org/10.1787/eag-2013-en.*

StatLink http://dx.doi.org/10.1787/888932853530

## Table G. **Unemployment rates by educational attainment, 2011**

Persons aged 25-64, as a percentage of the labour force in each gender

| | Total | | | Men | | | Women | | |
|---|---|---|---|---|---|---|---|---|---|
| | Less than upper secondary education | Upper secondary education | Tertiary education | Less than upper secondary education | Upper secondary education | Tertiary education | Less than upper secondary education | Upper secondary education | Tertiary education |
| Australia | 5.9 | 3.8 | 2.8 | 5.9 | 3.1 | 2.5 | 5.8 | 4.9 | 3.1 |
| Austria | 7.1 | 3.2 | 2.3 | 8.3 | 3.2 | 1.9 | 6.2 | 3.2 | 2.7 |
| Belgium | 12.1 | 5.7 | 3.4 | 12.0 | 4.9 | 3.5 | 12.2 | 6.7 | 3.3 |
| Canada | 11.7 | 6.9 | 5.0 | 11.2 | 7.1 | 4.9 | 12.6 | 6.6 | 5.1 |
| Chile | 4.4 | 5.0 | 5.4 | 3.4 | 4.0 | 4.6 | 6.1 | 6.4 | 6.3 |
| Czech Republic | 21.6 | 5.7 | 2.6 | 23.6 | 4.6 | 2.4 | 20.2 | 7.2 | 2.9 |
| Denmark | 8.9 | 6.0 | 5.0 | 9.1 | 6.0 | 4.7 | 8.7 | 6.0 | 5.3 |
| Estonia | 26.4 | 11.9 | 7.9 | 27.8 | 11.3 | 6.9 | 23.4 | 12.5 | 8.5 |
| Finland | 11.3 | 6.9 | 4.0 | 11.3 | 7.3 | 4.3 | 11.3 | 6.4 | 3.7 |
| France | 12.9 | 7.4 | 4.9 | 12.5 | 6.6 | 4.6 | 13.3 | 8.4 | 5.1 |
| Germany | 13.9 | 5.8 | 2.4 | 15.7 | 6.2 | 2.3 | 12.1 | 5.4 | 2.7 |
| Greece | 17.1 | 17.6 | 12.8 | 16.4 | 13.9 | 10.2 | 18.4 | 22.8 | 15.7 |
| Hungary | 23.1 | 9.6 | 3.9 | 22.7 | 9.3 | 3.9 | 23.5 | 9.9 | 3.9 |
| Iceland | 7.3 | 5.4 | 4.5 | 7.4 | 5.6 | 5.1 | 7.3 | [a] | 4.0 |
| Ireland | 21.7 | 15.0 | 7.1 | 25.1 | 17.8 | 7.9 | 14.2 | 11.2 | 6.3 |
| Israel | 7.3 | 5.8 | 3.9 | 7.9 | 5.6 | 3.6 | 5.9 | 6.0 | 4.1 |
| Italy | 9.4 | 6.0 | 5.2 | 8.4 | 5.0 | 3.9 | 11.3 | 7.1 | 6.3 |
| Japan | [b] | 5.3 | 3.4 | [b] | 5.8 | 3.3 | [b] | 4.7 | 3.4 |
| Korea | 2.7 | 3.4 | 2.9 | 3.7 | 3.7 | 2.9 | 1.8 | 2.9 | 3.0 |
| Luxembourg[c] | 6.1 | 3.7 | 3.5 | 4.6 | 3.1 | 2.8 | 7.9 | 4.6 | 4.4 |
| Mexico | 4.0 | 4.4 | 4.8 | 4.2 | 4.3 | 4.7 | 3.7 | 4.6 | 4.9 |
| Netherlands | 5.4 | 3.8 | 2.8 | 5.3 | 3.9 | 2.9 | 5.6 | 3.7 | 2.6 |
| New Zealand | 6.5 | 4.4 | 3.6 | 6.4 | 3.8 | 3.1 | 6.7 | 5.3 | 4.0 |
| Norway | 5.0 | 2.2 | 1.5 | 5.5 | 2.2 | 1.4 | 4.4 | 2.2 | 1.5 |
| Poland | 16.9 | 8.8 | 4.5 | 16.3 | 7.7 | 3.9 | 17.8 | 10.3 | 5.0 |
| Portugal | 13.3 | 10.9 | 8.0 | 12.8 | 10.1 | 9.1 | 14.0 | 11.8 | 7.3 |
| Slovak Republic | 39.3 | 11.5 | 5.2 | 44.4 | 11.1 | 4.5 | 34.5 | 12.2 | 5.9 |
| Slovenia | 12.7 | 8.2 | 4.7 | 13.6 | 7.6 | 4.8 | 11.6 | 9.0 | 4.6 |
| Spain | 26.4 | 19.2 | 11.6 | 25.5 | 17.6 | 10.7 | 27.8 | 21.2 | 12.6 |
| Sweden | 10.8 | 5.2 | 3.8 | 9.3 | 5.0 | 4.2 | 13.3 | 5.4 | 3.6 |
| Switzerland | 7.6 | 3.3 | 2.6 | 7.3 | 3.3 | 2.1 | 7.8 | 3.2 | 3.4 |
| Turkey | 8.4 | 8.9 | 7.6 | 8.7 | 6.7 | 5.9 | 7.7 | 17.3 | 10.9 |
| United Kingdom | 11.0 | 5.9 | 3.9 | 12.2 | 5.8 | 4.0 | 9.6 | 6.0 | 3.8 |
| United States | 16.2 | 10.2 | 4.9 | 16.7 | 11.3 | 5.1 | 15.2 | 8.8 | 4.7 |
| OECD[d] | 12.6 | 7.3 | 4.8 | 12.9 | 6.9 | 4.5 | 12.2 | 8.0 | 5.1 |
| Brazil | 4.6 | 6.1 | 2.9 | 3.2 | 3.5 | 2.0 | 6.8 | 9.6 | 3.7 |
| Russian Fed. | 14.4 | 7.3 | 3.6 | 14.8 | 7.2 | 3.7 | 13.9 | 7.5 | 3.6 |

Note: The classification of the levels of education is based on the International Standard Classification of Education (ISCED 1997). ISCED 97 is an instrument for compiling statistics on education internationally and distinguishes among six levels of education (ISCED 1-6). Below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; upper secondary or post-secondary non-tertiary correspond to ISCED levels 3A, 3B, 3C long programmes, and 4; and tertiary corresponds to ISCED levels 5A, 5B and 6.

*a)* There are too few observations to provide reliable estimates .

*b)* Data at the lower and upper secondary levels of education are not broken down. Individuals with lower secondary education are included in upper secondary education.

*c)* Data for men are subject to reduced reliability (see *Education at a Glance 2013 – OECD Indicators* , Annex 3 for more information).

*d)* Unweighted average.

*Source:* OECD (2013), *Education at a Glance 2013 – OECD Indicators* , OECD Publishing, Paris, *http://dx.doi/org/10.1787/eag-2013-en.*

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## Table H. **Incidence and composition of part-time employment**[a]

Persons aged 15 and over, percentages

| | Part-time employment as a proportion of total employment | | | | | | | | | | | | Women's share in part-time employment | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | | | | Men | | | | Women | | | | | | | |
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia[b] | .. | 23.8 | 24.7 | 24.6 | .. | 12.3 | 13.2 | 13.1 | .. | 37.7 | 38.5 | 38.4 | .. | 71.5 | 70.9 | 71.1 |
| Austria | 12.2 | 17.3 | 18.9 | 19.2 | 2.6 | 5.6 | 7.0 | 6.9 | 24.4 | 31.4 | 32.8 | 33.3 | 88.1 | 82.1 | 80.2 | 80.6 |
| Belgium | 19.0 | 18.1 | 18.8 | 18.7 | 7.1 | 6.4 | 7.0 | 7.1 | 34.5 | 32.2 | 32.4 | 32.1 | 79.0 | 80.7 | 79.9 | 79.8 |
| Canada | 18.1 | 18.3 | 19.1 | 18.8 | 10.4 | 11.1 | 12.2 | 11.8 | 27.2 | 26.3 | 26.8 | 26.6 | 69.1 | 67.9 | 66.6 | 67.0 |
| Chile | 4.7 | 8.0 | 17.2 | 16.7 | 3.1 | 5.2 | 11.8 | 11.3 | 8.7 | 13.9 | 25.5 | 24.6 | 53.9 | 56.9 | 58.7 | 59.2 |
| Czech Republic | 3.2 | 3.5 | 3.9 | 4.3 | 1.6 | 1.7 | 1.9 | 2.3 | 5.4 | 5.9 | 6.6 | 7.0 | 72.5 | 72.3 | 72.9 | 69.7 |
| Denmark | 16.1 | 17.3 | 19.2 | 19.4 | 9.3 | 11.9 | 13.8 | 14.4 | 24.0 | 23.4 | 25.2 | 24.9 | 69.4 | 63.3 | 62.1 | 60.9 |
| Estonia | 7.1 | 6.8 | 8.8 | 8.1 | 4.3 | 3.6 | 5.1 | 4.5 | 9.9 | 10.1 | 12.4 | 11.6 | 69.0 | 73.7 | 71.5 | 72.1 |
| Finland | 10.4 | 11.7 | 12.7 | 13.0 | 7.1 | 8.2 | 9.6 | 9.7 | 13.9 | 15.5 | 16.0 | 16.5 | 63.8 | 63.7 | 61.0 | 61.7 |
| France | 14.2 | 13.3 | 13.6 | 13.8 | 5.5 | 4.9 | 5.9 | 5.9 | 24.9 | 22.8 | 22.1 | 22.4 | 78.8 | 80.5 | 77.3 | 77.4 |
| Germany | 17.6 | 22.0 | 22.1 | 22.1 | 4.8 | 7.8 | 8.5 | 8.7 | 33.9 | 39.1 | 38.0 | 37.8 | 84.5 | 80.7 | 79.2 | 78.7 |
| Greece | 5.5 | 7.7 | 9.0 | 9.7 | 3.0 | 4.1 | 5.6 | 6.0 | 9.5 | 13.3 | 14.0 | 15.1 | 65.4 | 67.6 | 62.8 | 63.0 |
| Hungary | 2.9 | 2.8 | 4.7 | 4.7 | 1.5 | 1.6 | 3.4 | 3.1 | 4.5 | 4.2 | 6.4 | 6.6 | 71.2 | 68.6 | 61.7 | 64.6 |
| Iceland[b,c] | 20.4 | 15.9 | 17.0 | 17.3 | 8.8 | 8.0 | 10.4 | 11.4 | 33.7 | 25.4 | 24.1 | 23.7 | 77.0 | 72.7 | 68.0 | 65.8 |
| Ireland | 18.1 | 19.8 | 25.7 | 25.0 | 7.8 | 7.3 | 12.8 | 13.1 | 33.0 | 35.0 | 39.1 | 37.5 | 74.4 | 79.8 | 74.5 | 73.3 |
| Israel | 14.6 | 14.8 | 13.7 | 15.0 | 6.6 | 7.1 | 7.1 | 8.8 | 24.1 | 23.8 | 21.1 | 22.0 | 75.3 | 74.2 | 72.6 | 68.5 |
| Italy | 12.2 | 15.2 | 16.7 | 17.8 | 5.7 | 5.5 | 6.6 | 7.5 | 23.4 | 29.8 | 31.3 | 32.3 | 70.5 | 78.1 | 76.6 | 75.1 |
| Japan[d] | .. | 18.9 | 20.6 | 20.5 | .. | 9.2 | 10.3 | 10.3 | .. | 32.6 | 34.8 | 34.5 | .. | 71.5 | 71.0 | 70.8 |
| Korea[d] | 7.0 | 8.9 | 13.5 | 10.2 | 5.1 | 6.3 | 10.0 | 6.8 | 9.8 | 12.5 | 18.5 | 15.0 | 57.7 | 58.9 | 56.6 | 61.0 |
| Luxembourg | 12.4 | 13.1 | 16.0 | 15.5 | 2.0 | 1.4 | 5.0 | 5.4 | 28.4 | 27.6 | 30.2 | 28.1 | 90.0 | 93.9 | 82.2 | 80.5 |
| Mexico | 13.5 | 17.6 | 18.3 | 19.5 | 7.1 | 11.2 | 12.5 | 13.7 | 25.6 | 28.1 | 27.7 | 28.8 | 65.1 | 60.1 | 57.1 | 56.7 |
| Netherlands | 32.1 | 35.9 | 37.2 | 37.8 | 13.4 | 16.1 | 17.1 | 18.0 | 57.2 | 59.9 | 60.5 | 60.7 | 76.2 | 75.5 | 75.3 | 74.4 |
| New Zealand | 22.2 | 22.0 | 22.0 | 22.2 | 10.9 | 11.1 | 11.2 | 11.0 | 35.7 | 34.6 | 34.3 | 34.9 | 73.2 | 73.0 | 73.0 | 73.7 |
| Norway[c] | 20.2 | 20.4 | 20.0 | 19.8 | 8.7 | 10.5 | 11.0 | 11.5 | 33.4 | 31.6 | 30.0 | 29.1 | 77.0 | 72.9 | 71.1 | 69.4 |
| Poland | 12.8 | 10.1 | 8.3 | 8.0 | 8.8 | 6.0 | 5.0 | 4.7 | 17.9 | 15.0 | 12.5 | 12.2 | 61.7 | 67.0 | 66.9 | 67.6 |
| Portugal | 9.4 | 9.9 | 11.5 | 12.2 | 4.9 | 6.2 | 8.8 | 9.8 | 14.9 | 14.2 | 14.4 | 14.8 | 71.5 | 66.4 | 59.5 | 58.3 |
| Slovak Republic | 1.9 | 2.4 | 3.9 | 3.8 | 1.0 | 1.1 | 2.7 | 2.7 | 2.9 | 4.0 | 5.5 | 5.1 | 70.6 | 74.0 | 61.7 | 59.4 |
| Slovenia | .. | 7.8 | 8.6 | 7.9 | .. | 6.3 | 6.7 | 5.9 | .. | 9.7 | 10.9 | 10.3 | .. | 56.2 | 58.0 | 59.5 |
| Spain[c] | 7.7 | 10.7 | 12.9 | 13.8 | 2.6 | 3.6 | 5.5 | 6.1 | 16.5 | 20.7 | 21.9 | 22.9 | 78.5 | 80.4 | 76.6 | 76.2 |
| Sweden[c] | 14.0 | 14.4 | 14.3 | 14.3 | 7.3 | 9.5 | 10.1 | 10.3 | 21.4 | 19.7 | 19.0 | 18.6 | 72.9 | 65.0 | 62.7 | 62.0 |
| Switzerland | 24.4 | 25.4 | 25.9 | 26.0 | 8.4 | 8.7 | 9.4 | 9.6 | 44.7 | 45.6 | 45.5 | 45.6 | 80.6 | 81.3 | 80.2 | 80.0 |
| Turkey | 9.4 | 8.1 | 11.7 | 11.8 | 5.7 | 4.4 | 6.6 | 6.7 | 19.3 | 18.6 | 24.3 | 24.2 | 55.4 | 59.6 | 60.0 | 60.0 |
| United Kingdom[c] | 23.0 | 22.9 | 24.6 | 24.9 | 8.6 | 9.8 | 11.7 | 12.2 | 40.8 | 38.3 | 39.3 | 39.4 | 79.4 | 77.0 | 74.7 | 73.8 |
| United States[c,e] | 12.6 | 12.6 | 12.6 | 13.4 | 7.7 | 7.6 | 8.4 | 8.7 | 18.0 | 17.9 | 17.1 | 18.3 | 68.1 | 68.4 | 65.6 | 66.4 |
| OECD[f] | 11.9 | 15.4 | 16.5 | 16.9 | 5.8 | 7.8 | 9.1 | 9.3 | 20.2 | 25.3 | 26.0 | 26.4 | 72.1 | 71.6 | 69.3 | 69.3 |
| Brazil | .. | 18.3 | 16.0 | .. | .. | 10.3 | 9.7 | .. | .. | 29.1 | 24.6 | .. | | 67.7 | 65.1 | .. |
| Russian Fed. | 7.4 | 5.1 | 4.1 | 4.1 | 4.9 | 3.5 | 2.8 | 2.9 | 10.0 | 6.6 | 5.4 | 5.4 | 66.0 | 64.8 | 65.4 | 64.5 |
| South Africa | .. | 8.0 | 7.6 | 7.8 | .. | 4.8 | 5.0 | 4.8 | .. | 12.0 | 11.0 | 11.7 | .. | 66.2 | 63.0 | 65.4 |

*a)* Part-time employment refers to persons who usually work less than 30 hours per week in their main job.

*b)* Part-time employment based on hours worked at all jobs.

*c)* The lower age limit is 16 instead of 15 for Iceland up to 2008, Italy prior to 2009, Norway up to 2005 and Sweden up to 2006.

*d)* Data are based on actual hours worked.

*e)* Data are for wage and salary workers only.

*f)* Weighted average.

*Source and definition: OECD Online Employment Database: www.oecd.org/employment/database. See* van Bastelaer, A., G. Lemaître and P. Marianna (1997), "The Definition of Part-Time Work for the Purpose of International Comparisons", *Labour Market and Social Policy Occasional Paper*, No. 22, OECD Publishing, Paris, *http://dx.doi.org/10.1787/132721856632.*

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## Table I. **Incidence and composition of temporary employment**[a]

As a percentage of dependent employment in each age group

| | Total (15+) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Women's share in temporary employment | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia[b] | 4.8 | 6.3 | 6.0 | 5.9 | 4.6 | 6.0 | 6.3 | 5.7 | 5.0 | 6.4 | 5.8 | 5.8 | 53.1 | 52.3 | 53.8 | 51.7 |
| Austria | 7.9 | 8.9 | 9.6 | 9.3 | 33.0 | 34.9 | 37.2 | 35.6 | 3.8 | 4.3 | 5.0 | 5.0 | 47.1 | 46.8 | 47.1 | 47.8 |
| Belgium | 9.0 | 8.7 | 9.0 | 8.1 | 30.9 | 31.6 | 34.3 | 31.4 | 6.7 | 6.6 | 6.9 | 6.4 | 58.6 | 57.3 | 54.7 | 54.2 |
| Canada | 12.5 | 13.0 | 13.7 | 13.6 | 29.1 | 28.8 | 30.5 | 30.9 | 8.8 | 9.2 | 10.2 | 10.1 | 51.0 | 51.8 | 50.8 | 51.9 |
| Chile | 30.6 | 30.6 | 30.3 | 30.4 | 47.5 | 47.5 | 45.8 | 46.5 | 28.5 | 28.5 | 28.4 | 28.5 | 34.5 | 34.5 | 34.8 | 34.9 |
| Czech Republic | 9.3 | 8.6 | 8.5 | 8.8 | 19.6 | 17.4 | 22.3 | 27.0 | 5.2 | 5.6 | 6.6 | 6.7 | 46.6 | 54.3 | 54.3 | 54.4 |
| Denmark | 10.2 | 9.1 | 8.8 | 8.5 | 29.8 | 22.5 | 22.1 | 20.9 | 6.5 | 6.9 | 6.9 | 7.0 | 55.5 | 55.7 | 52.4 | 53.7 |
| Estonia | .. | 2.1 | 4.5 | 3.7 | .. | 6.6 | 13.8 | 12.9 | .. | 1.6 | 3.3 | 2.8 | .. | 38.5 | 41.9 | 39.6 |
| Finland | 16.5 | 16.0 | 15.7 | 15.7 | 45.6 | 42.4 | 43.4 | 42.0 | 13.0 | 13.2 | 13.2 | 13.2 | 60.3 | 61.8 | 60.1 | 60.4 |
| France | 15.5 | 15.1 | 15.2 | 15.2 | 55.0 | 53.5 | 55.1 | 55.5 | 11.7 | 11.2 | 11.4 | 11.5 | 49.5 | 52.5 | 51.4 | 52.2 |
| Germany | 12.7 | 14.6 | 14.7 | 13.9 | 52.4 | 57.4 | 56.0 | 53.6 | 7.5 | 9.1 | 10.0 | 9.7 | 46.2 | 46.7 | 48.3 | 47.7 |
| Greece | 13.1 | 10.9 | 11.6 | 10.0 | 28.8 | 27.0 | 30.1 | 25.9 | 11.4 | 9.9 | 11.0 | 9.6 | 47.4 | 50.3 | 48.6 | 50.6 |
| Hungary | 7.1 | 7.3 | 8.9 | 9.4 | 13.9 | 19.1 | 22.9 | 22.5 | 5.9 | 6.5 | 8.3 | 8.8 | 43.8 | 44.1 | 45.0 | 43.3 |
| Iceland[c] | 12.2 | 12.4 | 12.2 | 13.1 | 28.9 | 32.0 | 32.8 | 33.0 | 7.5 | 8.9 | 8.5 | 9.6 | 53.3 | 53.8 | 50.3 | 49.8 |
| Ireland | 4.7 | 8.1 | 10.2 | 10.2 | 12.3 | 20.5 | 33.8 | 34.9 | 2.5 | 5.4 | 7.5 | 7.7 | 57.4 | 56.6 | 53.6 | 53.1 |
| Israel | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Italy | 10.1 | 13.2 | 13.4 | 13.8 | 26.2 | 42.3 | 49.9 | 52.9 | 8.6 | 11.4 | 11.8 | 12.3 | 48.2 | 51.5 | 48.8 | 48.4 |
| Japan | 12.5 | 13.9 | 13.7 | 13.7 | 24.9 | 26.4 | 26.4 | 26.9 | 9.5 | 10.9 | 10.6 | 10.5 | 67.1 | 65.1 | 64.5 | 64.0 |
| Korea | .. | 24.7 | 23.8 | .. | .. | 30.0 | 27.3 | .. | .. | 21.3 | 19.3 | .. | .. | 44.4 | 48.9 | .. |
| Luxembourg | 3.4 | 6.8 | 7.1 | 7.7 | 14.5 | 34.1 | 34.5 | 39.0 | 2.3 | 5.3 | 5.7 | 5.8 | 54.0 | 49.9 | 50.5 | 47.3 |
| Mexico | 20.5 | .. | .. | .. | 25.7 | .. | .. | .. | 17.8 | .. | .. | .. | 19.7 | .. | .. | .. |
| Netherlands | 14.0 | 18.1 | 18.4 | 19.5 | 35.4 | 45.1 | 47.8 | 51.2 | 9.5 | 12.9 | 13.3 | 14.0 | 53.4 | 51.1 | 51.3 | 50.7 |
| New Zealand | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Norway[c] | 9.3 | 9.5 | 7.9 | 8.4 | 28.5 | 27.3 | 23.7 | 23.9 | 6.9 | 7.4 | 6.2 | 6.7 | 58.8 | 59.8 | 58.0 | 58.8 |
| Poland | .. | 28.2 | 27.0 | 26.9 | .. | 65.7 | 55.2 | 56.2 | .. | 24.0 | 24.9 | 25.1 | .. | 45.9 | 45.0 | 45.4 |
| Portugal | 20.4 | 22.4 | 22.2 | 20.7 | 41.5 | 52.6 | 57.2 | 56.5 | 16.6 | 19.8 | 20.3 | 19.0 | 50.8 | 48.5 | 49.7 | 49.3 |
| Slovak Republic | 4.8 | 5.1 | 6.6 | 6.8 | 10.5 | 13.7 | 18.6 | 19.1 | 3.4 | 3.7 | 5.6 | 5.8 | 44.6 | 48.3 | 49.7 | 50.0 |
| Slovenia | .. | 18.5 | 18.2 | 17.1 | .. | 68.3 | 74.5 | 72.0 | .. | 12.9 | 13.4 | 13.6 | .. | 52.4 | 52.5 | 52.2 |
| Spain[c] | 32.1 | 31.7 | 25.3 | 23.6 | 68.6 | 62.8 | 61.4 | 62.4 | 27.5 | 29.5 | 24.6 | 23.2 | 41.8 | 45.2 | 49.4 | 50.8 |
| Sweden[c] | 15.2 | 17.5 | .. | .. | 49.5 | 57.3 | .. | .. | 11.9 | 13.0 | .. | .. | 57.6 | 56.9 | .. | .. |
| Switzerland | 11.5 | 12.9 | 12.9 | 12.9 | 47.0 | 50.3 | 51.5 | 52.5 | 5.1 | 6.4 | 6.2 | 6.2 | 50.1 | 47.1 | 48.0 | 46.8 |
| Turkey | 20.3 | 11.9 | 12.3 | 12.1 | 23.7 | 12.4 | 18.4 | 19.3 | 18.6 | 11.3 | 10.5 | 10.2 | 12.1 | 21.6 | 23.3 | 22.6 |
| United Kingdom[c] | 6.8 | 5.9 | 6.2 | 6.3 | 13.2 | 13.3 | 13.5 | 14.9 | 5.3 | 4.2 | 4.7 | 4.7 | 53.8 | 53.6 | 51.8 | 52.6 |
| United States[c] | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| OECD[d] | 11.3 | 12.2 | 11.9 | 11.8 | 24.3 | 25.6 | 24.7 | 24.5 | 8.8 | 10.1 | 9.9 | 9.8 | 46.5 | 47.5 | 47.5 | 47.6 |
| Brazil | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Russian Fed. | 5.5 | 12.3 | 8.3 | 8.5 | 14.5 | 23.1 | 17.1 | 17.3 | 4.2 | 11.2 | 7.6 | 7.9 | 36.5 | 41.9 | 37.0 | 37.2 |
| South Africa | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |

*a)* Temporary employees are wage and salary workers whose job has a pre-determined termination date as opposed to permanent employees whose job is of unlimited duration. National definitions broadly conform to this generic definition, but may vary depending on national circumstances. Country-specific details can be found in the PDF reported below.

*b)* Data refer to 2001 instead of 2000.

*c)* The lower age limit is 16 instead of 15 for Iceland up to 2008, Italy after 2009, Norway up to 2005 and Sweden up to 2006.

*d)* Weighted average.

*Source and definition* : *OECD Online Employment Database* : *www.oecd.org/employment/database* and *www.oecd.org/els/emp/lfsnotes_sources.pdf.*

StatLink http://dx.doi.org/10.1787/888932853587

## Table J. **Incidence of job tenure, 12 months and under**

As a percentage of total employment in each age group

| | Total (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | .. | 23.6 | 21.8 | 20.7 | .. | 47.7 | 44.7 | 42.3 | .. | 20.1 | 19.0 | 18.1 | .. | 10.2 | 8.2 | 8.6 |
| Austria | .. | 15.4 | 16.0 | 15.3 | .. | 39.5 | 40.6 | 38.8 | .. | 12.3 | 13.2 | 12.7 | .. | 5.0 | 5.3 | 5.1 |
| Belgium | 13.7 | 13.0 | 12.7 | 12.1 | 52.5 | 48.8 | 48.0 | 46.8 | 10.3 | 10.7 | 10.8 | 10.3 | 2.6 | 2.7 | 2.5 | 2.5 |
| Canada | 21.4 | 21.0 | 19.2 | 19.1 | 54.0 | 53.2 | 49.6 | 49.8 | 16.2 | 16.2 | 15.3 | 15.4 | 8.0 | 8.4 | 8.0 | 7.7 |
| Chile | .. | .. | 31.1 | 36.6 | .. | .. | 64.4 | 50.4 | .. | .. | 28.0 | 36.2 | .. | .. | 16.8 | 27.4 |
| Czech Republic | 9.4 | 10.7 | 10.7 | 10.0 | 27.5 | 35.0 | 36.3 | 35.6 | 7.5 | 8.8 | 9.6 | 8.7 | 2.9 | 7.6 | 5.7 | 5.9 |
| Denmark | 23.2 | 26.0 | 20.4 | 20.1 | 54.5 | 56.4 | 47.8 | 48.2 | 19.2 | 23.3 | 17.5 | 17.1 | 7.6 | 10.2 | 7.5 | 7.5 |
| Estonia | .. | 15.4 | 18.0 | 17.0 | .. | 42.2 | 52.1 | 54.3 | .. | 12.7 | 15.7 | 14.9 | .. | 8.0 | 8.6 | 6.0 |
| Finland | 21.7 | 20.3 | 19.4 | 18.8 | 67.6 | 62.6 | 63.3 | 61.1 | 16.4 | 16.8 | 16.2 | 15.5 | 5.9 | 6.3 | 6.6 | 6.2 |
| France | 15.8 | 15.4 | 14.4 | 14.3 | 56.7 | 54.9 | 53.4 | 53.1 | 12.6 | 12.3 | 11.6 | 11.7 | 3.6 | 4.6 | 5.2 | 5.3 |
| Germany | 14.9 | 14.9 | 14.7 | 14.4 | 38.8 | 40.9 | 40.6 | 39.5 | 13.0 | 12.7 | 12.9 | 12.9 | 4.7 | 4.9 | 5.3 | 5.0 |
| Greece | 9.6 | 8.3 | 7.0 | 6.6 | 31.7 | 29.1 | 26.6 | 29.6 | 8.0 | 7.4 | 6.6 | 6.3 | 3.0 | 3.1 | 2.9 | 2.5 |
| Hungary | 11.7 | 11.6 | 12.5 | 13.9 | 29.4 | 38.8 | 40.0 | 41.8 | 9.4 | 10.2 | 11.6 | 12.9 | 4.5 | 5.2 | 5.8 | 8.1 |
| Iceland[a] | 25.5 | 22.5 | 18.5 | 20.7 | 59.2 | 53.1 | 47.4 | 51.7 | 20.0 | 18.3 | 14.8 | 16.6 | 6.1 | 7.2 | 5.8 | 6.5 |
| Ireland | 21.3 | 18.8 | 12.3 | 13.1 | 48.4 | 46.8 | 39.7 | 44.7 | 15.7 | 14.9 | 10.5 | 11.1 | 6.2 | 5.7 | 3.6 | 3.9 |
| Israel | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Italy | 11.2 | 11.7 | 9.9 | 9.7 | 38.4 | 41.0 | 37.0 | 38.7 | 9.3 | 10.4 | 9.1 | 9.0 | 3.7 | 3.7 | 3.9 | 3.7 |
| Japan | .. | 12.5 | .. | .. | .. | 41.2 | .. | .. | .. | 10.3 | .. | .. | .. | 6.3 | .. | .. |
| Korea | .. | 38.1 | 34.6 | 33.3 | .. | 70.7 | 74.6 | 74.6 | .. | 33.8 | 30.0 | 28.3 | .. | 44.7 | 40.6 | 38.7 |
| Luxembourg | 11.6 | 10.6 | 12.5 | 11.9 | 40.4 | 44.0 | 43.4 | 48.4 | 9.6 | 9.0 | 11.5 | 10.5 | 0.5 | 1.9 | 3.8 | 3.0 |
| Mexico | .. | 24.3 | 21.3 | 20.9 | .. | 46.3 | 40.8 | 41.5 | .. | 19.4 | 17.4 | 16.8 | .. | 10.3 | 9.0 | 9.0 |
| Netherlands | 20.6 | 15.5 | 15.1 | 14.6 | 53.4 | 44.7 | 43.0 | 42.4 | 16.7 | 13.4 | 11.2 | 10.7 | 8.0 | 4.0 | 3.9 | 3.9 |
| New Zealand | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Norway[a] | 16.9 | 20.9 | 16.1 | 16.3 | 46.1 | 52.5 | 44.6 | 44.4 | 14.0 | 18.1 | 13.5 | 13.7 | 3.3 | 4.9 | 4.1 | 4.2 |
| Poland | 14.5 | 15.7 | 12.3 | 12.1 | 44.7 | 47.3 | 41.0 | 41.1 | 11.6 | 12.8 | 10.6 | 10.6 | 6.2 | 6.9 | 5.5 | 5.2 |
| Portugal | 14.2 | 13.2 | 13.1 | 12.0 | 40.1 | 39.6 | 42.2 | 40.7 | 11.6 | 11.8 | 12.2 | 11.0 | 3.1 | 3.6 | 4.2 | 4.8 |
| Slovak Republic | .. | 11.8 | 9.2 | 8.3 | .. | 35.7 | 33.2 | 31.3 | .. | 9.5 | 7.9 | 7.2 | .. | 6.3 | 5.3 | 4.4 |
| Slovenia | .. | 13.9 | 11.2 | 11.6 | .. | 51.1 | 46.6 | 46.1 | .. | 10.5 | 8.7 | 9.8 | .. | 2.8 | 3.2 | 3.8 |
| Spain[a] | 20.9 | 21.9 | 15.3 | 14.3 | 54.3 | 55.4 | 47.8 | 48.1 | 17.6 | 19.9 | 14.7 | 13.9 | 6.2 | 6.0 | 4.8 | 4.7 |
| Sweden[a] | 15.9 | 20.4 | 20.1 | 19.2 | 49.4 | 65.4 | 62.3 | 60.3 | 14.0 | 17.0 | 16.8 | 16.1 | 4.7 | 6.5 | 6.9 | 6.4 |
| Switzerland | 16.5 | 15.3 | 16.4 | 15.8 | 44.6 | 41.4 | 41.9 | 40.7 | 13.4 | 12.7 | 14.1 | 13.7 | 3.9 | 4.2 | 4.3 | 4.5 |
| Turkey | .. | 19.6 | 25.3 | 25.3 | .. | 41.6 | 51.7 | 52.6 | .. | 15.7 | 21.3 | 21.3 | .. | 6.4 | 11.2 | 11.5 |
| United Kingdom[a] | 19.5 | 17.9 | 14.7 | 15.0 | 48.5 | 45.9 | 40.1 | 41.3 | 15.8 | 14.5 | 12.0 | 12.2 | 7.6 | 7.2 | 5.9 | 6.0 |
| United States[a] | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| OECD[b] | 20.8 | 19.4 | 17.8 | 18.0 | 51.3 | 49.6 | 47.4 | 47.7 | 16.8 | 16.1 | 15.0 | 15.2 | 8.7 | 8.3 | 7.9 | 8.2 |
| Brazil | .. | 18.7 | 17.9 | .. | .. | 37.5 | 37.7 | .. | .. | 14.7 | 14.4 | .. | .. | 6.5 | 6.5 | .. |
| Russian Fed. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| South Africa | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |

## Table J. **Incidence of job tenure, 12 months and under** *(cont.)*

As a percentage of male employment in each age group

| | Men (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | .. | 22.2 | 21.1 | 20.1 | .. | 45.6 | 42.4 | 40.7 | .. | 19.0 | 19.0 | 18.0 | .. | 9.9 | 8.2 | 8.2 |
| Austria | .. | 14.7 | 15.3 | 14.5 | .. | 39.5 | 38.3 | 37.7 | .. | 11.6 | 12.6 | 11.9 | .. | 5.0 | 5.3 | 5.1 |
| Belgium | 12.8 | 12.5 | 12.5 | 11.6 | 48.7 | 46.2 | 46.1 | 43.1 | 9.9 | 10.4 | 10.8 | 10.0 | 2.5 | 2.8 | 2.8 | 2.5 |
| Canada | 20.6 | 20.8 | 19.7 | 19.3 | 53.9 | 52.7 | 50.1 | 50.0 | 15.6 | 16.2 | 15.9 | 15.7 | 8.3 | 8.7 | 8.7 | 8.3 |
| Chile | .. | .. | 31.4 | 36.8 | .. | .. | 65.3 | 51.7 | .. | .. | 28.0 | 36.2 | .. | .. | 17.3 | 28.0 |
| Czech Republic | 8.6 | 9.5 | 9.4 | 8.7 | 27.3 | 34.3 | 33.5 | 33.5 | 6.8 | 7.5 | 8.1 | 7.2 | 3.5 | 6.0 | 4.9 | 5.6 |
| Denmark | 21.0 | 24.1 | 20.7 | 19.9 | 50.9 | 51.6 | 47.1 | 46.9 | 17.4 | 21.7 | 18.1 | 17.1 | 7.3 | 9.8 | 8.2 | 8.5 |
| Estonia | .. | 14.9 | 18.7 | 17.0 | .. | 39.1 | 49.1 | 56.1 | .. | 11.9 | 16.2 | 13.9 | .. | 7.8 | 10.1 | 6.8 |
| Finland | 20.5 | 18.9 | 18.4 | 17.7 | 64.4 | 60.2 | 63.4 | 60.2 | 15.5 | 15.2 | 14.9 | 14.1 | 5.3 | 6.9 | 7.2 | 6.8 |
| France | 15.7 | 15.2 | 14.5 | 14.2 | 56.7 | 53.2 | 50.9 | 50.3 | 12.4 | 12.0 | 11.7 | 11.7 | 4.1 | 4.5 | 5.0 | 5.3 |
| Germany | 13.8 | 14.4 | 14.3 | 13.8 | 37.9 | 39.7 | 39.6 | 38.4 | 12.0 | 12.4 | 12.4 | 12.3 | 4.1 | 4.9 | 5.4 | 5.0 |
| Greece | 8.7 | 7.5 | 6.8 | 6.3 | 29.4 | 26.8 | 25.6 | 27.2 | 7.3 | 6.7 | 6.4 | 6.0 | 2.8 | 3.2 | 2.8 | 2.2 |
| Hungary | 11.7 | 11.8 | 12.5 | 14.4 | 28.5 | 38.0 | 38.0 | 40.7 | 9.5 | 10.3 | 11.7 | 13.3 | 4.5 | 6.0 | 6.2 | 9.3 |
| Iceland[a] | 24.0 | 21.1 | 18.0 | 20.2 | 58.3 | 52.1 | 45.3 | 51.5 | 19.5 | 17.1 | 15.0 | 16.1 | 2.8 | 6.4 | 5.6 | 7.0 |
| Ireland | 18.7 | 17.3 | 12.3 | 13.0 | 45.3 | 42.1 | 38.6 | 43.2 | 13.8 | 14.4 | 11.0 | 11.6 | 5.1 | 5.4 | 3.6 | 4.2 |
| Israel | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Italy | 10.2 | 10.4 | 9.0 | 8.7 | 37.4 | 38.7 | 34.1 | 35.6 | 8.5 | 9.1 | 8.2 | 7.9 | 3.9 | 3.5 | 3.9 | 3.5 |
| Japan | .. | 9.7 | .. | .. | .. | 39.6 | .. | .. | .. | 7.1 | .. | .. | .. | 6.3 | .. | .. |
| Korea | .. | 34.0 | 30.8 | 29.8 | .. | 81.1 | 82.6 | 82.1 | .. | 30.0 | 26.8 | 25.3 | .. | 40.2 | 37.6 | 35.9 |
| Luxembourg | 10.3 | 10.0 | 11.7 | 11.1 | 41.2 | 43.8 | 40.1 | 45.5 | 8.3 | 8.2 | 10.8 | 9.9 | 0.8 | 1.3 | 4.1 | 2.5 |
| Mexico | .. | 22.6 | 20.3 | 19.7 | .. | 43.6 | 38.1 | 38.0 | .. | 17.9 | 16.5 | 15.9 | .. | 9.7 | 9.2 | 8.5 |
| Netherlands | 18.2 | 15.0 | 14.5 | 13.9 | 51.4 | 42.9 | 41.4 | 40.9 | 14.8 | 13.2 | 11.2 | 10.5 | 7.1 | 4.2 | 4.2 | 4.0 |
| New Zealand | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Norway[a] | 15.9 | 20.2 | 15.7 | 16.5 | 43.0 | 51.1 | 43.1 | 43.9 | 13.4 | 17.9 | 13.4 | 14.2 | 3.2 | 5.1 | 4.7 | 4.9 |
| Poland | 15.6 | 15.8 | 12.9 | 12.2 | 44.9 | 45.5 | 39.3 | 37.7 | 13.0 | 13.1 | 11.2 | 10.7 | 6.2 | 7.6 | 6.1 | 5.7 |
| Portugal | 14.0 | 13.1 | 13.1 | 12.2 | 39.8 | 38.0 | 39.6 | 38.7 | 11.1 | 11.7 | 12.2 | 11.2 | 3.7 | 3.5 | 4.3 | 5.3 |
| Slovak Republic | .. | 11.6 | 9.5 | 8.1 | .. | 34.8 | 31.7 | 29.7 | .. | 9.5 | 8.0 | 7.0 | .. | 5.3 | 5.6 | 4.1 |
| Slovenia | .. | 13.5 | 10.2 | 11.2 | .. | 49.4 | 42.4 | 42.1 | .. | 9.9 | 7.7 | 9.4 | .. | 3.1 | 3.0 | 4.1 |
| Spain[a] | 18.9 | 20.5 | 14.7 | 13.6 | 52.4 | 53.3 | 46.7 | 47.2 | 15.9 | 18.6 | 14.3 | 13.3 | 5.8 | 5.6 | 4.4 | 4.3 |
| Sweden[a] | 16.0 | 20.3 | 19.9 | 18.5 | 46.2 | 62.7 | 59.8 | 55.5 | 14.7 | 17.3 | 16.8 | 16.1 | 4.8 | 7.3 | 7.5 | 7.0 |
| Switzerland | 15.2 | 13.8 | 15.2 | 14.6 | 41.8 | 39.2 | 39.1 | 37.3 | 12.6 | 11.3 | 13.3 | 12.9 | 4.2 | 3.6 | 4.1 | 4.0 |
| Turkey | .. | 19.7 | 25.5 | 25.4 | .. | 43.3 | 54.2 | 55.1 | .. | 15.9 | 21.5 | 21.3 | .. | 7.2 | 11.0 | 11.4 |
| United Kingdom[a] | 18.5 | 17.3 | 14.4 | 14.7 | 47.8 | 44.3 | 39.0 | 39.8 | 14.8 | 14.1 | 12.0 | 12.2 | 8.1 | 7.8 | 6.2 | 6.4 |
| United States[a] | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| OECD[b] | 19.2 | 18.4 | 17.2 | 17.3 | 49.5 | 48.0 | 45.9 | 46.0 | 15.4 | 15.2 | 14.5 | 14.7 | 8.4 | 8.1 | 7.9 | 8.3 |
| Brazil | .. | 18.0 | 17.3 | .. | .. | 35.3 | 35.0 | .. | .. | 14.1 | 14.0 | .. | .. | 6.4 | 6.8 | .. |
| Russian Fed. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| South Africa | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |

## Table J. **Incidence of job tenure, 12 months and under** *(cont.)*

As a percentage of female employment in each age group

| | Women (15-64) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55-64) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | .. | 25.4 | 22.5 | 21.4 | .. | 50.1 | 47.0 | 44.0 | .. | 21.4 | 18.9 | 18.2 | .. | 10.6 | 8.2 | 9.1 |
| Austria | .. | 16.3 | 16.9 | 16.2 | .. | 39.5 | 43.3 | 40.0 | .. | 13.1 | 13.8 | 13.5 | .. | 5.0 | 5.3 | 5.0 |
| Belgium | 14.8 | 13.6 | 12.9 | 12.7 | 57.5 | 52.0 | 50.3 | 51.5 | 10.8 | 10.9 | 10.8 | 10.6 | 2.9 | 2.7 | 2.1 | 2.4 |
| Canada | 22.3 | 21.3 | 18.8 | 19.0 | 54.2 | 53.6 | 49.1 | 49.6 | 16.9 | 16.1 | 14.6 | 15.0 | 7.7 | 7.9 | 7.2 | 7.0 |
| Chile | .. | .. | 30.7 | 36.2 | .. | .. | 62.9 | 48.4 | .. | .. | 28.0 | 36.2 | .. | .. | 15.9 | 26.4 |
| Czech Republic | 10.3 | 12.3 | 12.5 | 11.7 | 27.7 | 36.1 | 40.7 | 38.7 | 8.4 | 10.5 | 11.4 | 10.7 | 1.1 | 10.1 | 6.8 | 6.3 |
| Denmark | 25.7 | 28.2 | 20.2 | 20.3 | 58.4 | 61.7 | 48.5 | 49.5 | 21.1 | 24.9 | 16.8 | 17.1 | 7.9 | 10.7 | 6.7 | 6.3 |
| Estonia | .. | 15.9 | 17.4 | 17.1 | .. | 46.3 | 55.7 | 52.4 | .. | 13.5 | 15.2 | 16.0 | .. | 8.1 | 7.5 | 5.4 |
| Finland | 22.9 | 21.9 | 20.6 | 20.0 | 70.9 | 64.9 | 63.2 | 61.9 | 17.4 | 18.5 | 17.7 | 17.1 | 6.4 | 5.8 | 6.0 | 5.6 |
| France | 15.9 | 15.6 | 14.3 | 14.4 | 56.7 | 57.1 | 56.4 | 56.4 | 12.8 | 12.6 | 11.5 | 11.7 | 2.9 | 4.6 | 5.4 | 5.3 |
| Germany | 16.4 | 15.5 | 15.3 | 15.0 | 39.8 | 42.2 | 41.8 | 40.8 | 14.2 | 13.0 | 13.3 | 13.5 | 5.8 | 4.9 | 5.3 | 5.1 |
| Greece | 11.1 | 9.4 | 7.3 | 7.2 | 35.1 | 32.5 | 28.2 | 33.5 | 9.0 | 8.4 | 6.8 | 6.7 | 3.4 | 3.0 | 3.1 | 2.9 |
| Hungary | 11.8 | 11.4 | 12.4 | 13.3 | 30.6 | 39.9 | 42.5 | 43.1 | 9.3 | 10.1 | 11.6 | 12.3 | 4.5 | 4.2 | 5.3 | 6.8 |
| Iceland[a] | 27.1 | 24.2 | 19.2 | 21.3 | 60.1 | 54.2 | 49.3 | 51.9 | 20.7 | 19.7 | 14.6 | 17.1 | 10.1 | 8.2 | 6.0 | 5.9 |
| Ireland | 25.1 | 20.7 | 12.4 | 13.2 | 52.2 | 52.0 | 40.6 | 46.0 | 18.5 | 15.6 | 9.9 | 10.6 | 8.7 | 6.3 | 3.6 | 3.6 |
| Israel | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Italy | 12.9 | 13.5 | 11.2 | 11.2 | 39.7 | 44.6 | 41.5 | 43.4 | 10.7 | 12.2 | 10.4 | 10.4 | 3.2 | 4.0 | 3.9 | 4.0 |
| Japan | .. | 16.2 | .. | .. | .. | 42.9 | .. | .. | .. | 14.5 | .. | .. | .. | 6.4 | .. | .. |
| Korea | .. | 43.8 | 39.6 | 38.0 | .. | 64.6 | 69.8 | 69.7 | .. | 39.4 | 34.6 | 32.6 | .. | 52.1 | 44.9 | 42.6 |
| Luxembourg | 13.6 | 11.4 | 13.6 | 12.9 | 39.4 | 44.4 | 47.6 | 51.8 | 11.5 | 10.1 | 12.5 | 11.2 | 0.0 | 2.6 | 3.3 | 3.6 |
| Mexico | .. | 27.0 | 22.9 | 22.7 | .. | 50.9 | 45.8 | 48.1 | .. | 21.8 | 18.7 | 18.1 | .. | 11.5 | 8.5 | 10.0 |
| Netherlands | 24.1 | 16.3 | 15.8 | 15.4 | 55.6 | 46.8 | 44.5 | 43.9 | 19.4 | 13.5 | 11.2 | 10.9 | 10.2 | 3.6 | 3.5 | 3.6 |
| New Zealand | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Norway[a] | 18.0 | 21.7 | 16.5 | 16.1 | 49.4 | 53.9 | 46.1 | 44.8 | 14.6 | 18.3 | 13.7 | 13.1 | 3.4 | 4.5 | 3.3 | 3.4 |
| Poland | 13.1 | 15.5 | 11.7 | 12.1 | 44.5 | 49.9 | 43.6 | 46.4 | 10.0 | 12.5 | 10.0 | 10.4 | 6.1 | 5.6 | 4.5 | 4.5 |
| Portugal | 14.4 | 13.3 | 13.2 | 11.7 | 40.4 | 41.8 | 45.3 | 43.1 | 12.2 | 11.9 | 12.1 | 10.8 | 2.3 | 3.7 | 4.1 | 4.2 |
| Slovak Republic | .. | 12.1 | 9.0 | 8.6 | .. | 37.0 | 35.8 | 33.8 | .. | 9.5 | 7.7 | 7.5 | .. | 8.6 | 4.9 | 5.0 |
| Slovenia | .. | 14.3 | 12.4 | 12.1 | .. | 53.5 | 52.9 | 52.1 | .. | 11.1 | 9.9 | 10.2 | .. | 2.3 | 3.5 | 3.2 |
| Spain[a] | 24.5 | 24.0 | 16.1 | 15.2 | 57.2 | 58.3 | 49.0 | 49.1 | 20.5 | 21.6 | 15.1 | 14.6 | 7.2 | 6.8 | 5.3 | 5.1 |
| Sweden[a] | 15.7 | 20.5 | 20.4 | 19.9 | 52.8 | 68.3 | 65.0 | 65.1 | 13.3 | 16.6 | 16.8 | 16.2 | 4.5 | 5.6 | 6.3 | 5.8 |
| Switzerland | 18.2 | 17.1 | 17.8 | 17.3 | 47.6 | 43.8 | 45.1 | 44.4 | 14.5 | 14.3 | 15.1 | 14.5 | 3.5 | 5.0 | 4.6 | 5.1 |
| Turkey | .. | 19.5 | 24.8 | 25.0 | .. | 38.2 | 46.6 | 47.6 | .. | 15.1 | 20.8 | 21.2 | .. | 4.3 | 11.7 | 11.7 |
| United Kingdom[a] | 20.7 | 18.6 | 14.9 | 15.4 | 49.3 | 47.6 | 41.2 | 42.9 | 17.1 | 14.9 | 11.9 | 12.2 | 7.0 | 6.3 | 5.6 | 5.5 |
| United States[a] | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| OECD[b] | 22.9 | 20.8 | 18.6 | 18.8 | 53.4 | 51.7 | 49.1 | 49.7 | 18.7 | 17.3 | 15.7 | 16.0 | 9.1 | 8.6 | 7.8 | 8.1 |
| Brazil | .. | 19.7 | 18.8 | .. | .. | 40.9 | 41.7 | .. | .. | 15.4 | 14.9 | .. | .. | 6.7 | 6.0 | .. |
| Russian Fed. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| South Africa | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |

*a)* The lower age limit is 16 instead of 15 for Iceland up to 2008, Italy prior to 2009, Norway up to 2005 and Sweden up to 2006.

*b)* Weighted average.

*Source and definition*: *OECD Online Employment Database*: *www.oecd.org/employment/database* and *www.oecd.org/els/emp/lfs notes_sources.pdf.*

StatLink http://dx.doi.org/10.1787/888932853606

## Table K. **Average annual hours actually worked per person in employment**[a]

| | Total employment | | | | | | | | Dependent employment | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1979 | 1983 | 1990 | 1995 | 2000 | 2007 | 2011 | 2012 | 1979 | 1983 | 1990 | 1995 | 2000 | 2007 | 2011 | 2012 |
| Australia | 1 832 | 1 785 | 1 778 | 1 792 | 1 776 | 1 711 | 1 693 | 1 728 | .. | .. | .. | .. | .. | .. | .. | .. |
| Austria | .. | .. | .. | 1 826 | 1 842 | 1 771 | 1 696 | 1 699 | .. | .. | .. | 1 455 | 1 510 | 1 486 | 1 429 | 1 414 |
| Belgium | .. | 1 670 | 1 658 | 1 580 | 1 545 | 1 560 | 1 576 | 1 574 | .. | 1 563 | 1 573 | 1 531 | 1 422 | 1 454 | 1 445 | 1 443 |
| Canada | 1 841 | 1 779 | 1 796 | 1 774 | 1 777 | 1 739 | 1 698 | 1 710 | .. | 1 763 | 1 780 | 1 767 | 1 770 | 1 738 | 1 705 | 1 717 |
| Chile | .. | .. | .. | .. | 2 263 | 2 128 | 2 047 | 2 029 | .. | .. | .. | .. | 2 318 | 2 168 | 2 124 | 2 102 |
| Czech Republic | .. | .. | .. | 1 863 | 1 904 | 1 793 | 1 830 | 1 800 | .. | .. | .. | 1 793 | 1 837 | 1 729 | 1 716 | 1 700 [b] |
| Denmark | 1 636 | 1 638 | 1 539 | 1 541 | 1 581 | 1 570 | 1 548 | 1 546 | 1 600 | 1 614 | 1 515 | 1 514 | 1 549 | 1 545 | 1 524 | 1 523 |
| Estonia | .. | .. | .. | .. | 1 987 | 1 999 | 1 924 | 1 889 | .. | .. | .. | .. | .. | 2 056 | 2 033 | 2 021 |
| Finland | 1 869 | 1 823 | 1 769 | 1 776 | 1 751 | 1 706 | 1 680 | 1 672 | .. | .. | 1 666 | 1 672 | 1 638 | 1 594 | 1 578 | 1 575 |
| France | 1 804 | 1 685 | 1 644 | 1 590 | 1 523 | 1 485 | 1 482 | 1 479 | 1 662 | 1 550 | 1 533 | 1 488 | 1 427 | 1 401 | 1 404 | 1 402 |
| Germany | .. | .. | .. | 1 529 | 1 471 | 1 422 | 1 406 | 1 397 | .. | .. | .. | 1 438 | 1 375 | 1 340 | 1 325 | 1 317 |
| Greece | .. | 2 208 | 2 105 | 2 132 | 2 130 | 2 037 | 2 039 | 2 034 | .. | 1 760 | 1 761 | 1 785 | 1 818 | 1 781 | 1 751 | 1 728 |
| Hungary[c] | .. | 2 080 | 1 945 | 2 006 | 2 033 | 1 978 | 1 976 | 1 888 | .. | 1 829 | 1 710 | 1 765 | 1 795 | 1 778 | 1 816 | 1 797 |
| Iceland | .. | .. | .. | 1 832 | 1 885 | 1 781 | 1 731 | 1 706 | .. | .. | .. | 1 776 | 1 820 | 1 704 | 1 662 | 1 647 |
| Ireland | .. | 1 981 | 1 988 | 1 875 | 1 719 | 1 633 | 1 541 | 1 529 | .. | 1 702 | 1 712 | 1 655 | 1 596 | 1 549 | 1 471 | 1 460 |
| Israel | .. | .. | .. | 1 995 | 2 017 | 1 931 | 1 920 | 1 910 | .. | .. | .. | .. | .. | .. | .. | .. |
| Italy | .. | 1 876 | 1 867 | 1 859 | 1 861 | 1 816 | 1 772 | 1 752 | .. | .. | .. | .. | .. | .. | .. | .. |
| Japan[d] | 2 126 | 2 095 | 2 031 | 1 884 | 1 821 | 1 785 | 1 728 | 1 745 | .. | .. | .. | 1 910 | 1 853 | 1 808 | 1 747 | 1 765 |
| Korea | .. | 2 911 | 2 677 | 2 648 | 2 512 | 2 306 | 2 090 | .. | .. | .. | .. | .. | .. | 2 090 | 2 116 | 2 092 |
| Luxembourg | .. | 1 798 | 1 787 | 1 740 | 1 683 | 1 537 | 1 600 | 1 609 | .. | 1 661 | 1 683 | 1 632 | 1 619 | 1 535 | 1 564 | 1 578 |
| Mexico | .. | .. | .. | 2 294 | 2 311 | 2 262 | 2 250 | 2 226 | .. | .. | .. | 2 360 | 2 360 | 2 338 | 2 331 | 2 317 |
| Netherlands | 1 556 | 1 524 | 1 451 | 1 456 | 1 435 | 1 388 | 1 382 | 1 381 | 1 512 | 1 491 | 1 434 | 1 414 | 1 381 | 1 340 | 1 336 | 1 334 |
| New Zealand | | | 1 809 | 1 841 | 1 828 | 1 766 | 1 762 | 1 739 | .. | .. | 1 734 | 1 766 | 1 769 | 1 748 | 1 746 | 1 727 |
| Norway | 1 580 | 1 553 | 1 503 | 1 488 | 1 455 | 1 426 | 1 421 | 1 420 | .. | .. | .. | .. | .. | .. | .. | .. |
| Poland | .. | .. | .. | .. | 1 988 | 1 976 | 1 938 | 1 929 | .. | .. | .. | .. | 1 963 | 1 953 | 1 911 | 1 893 |
| Portugal | .. | .. | 1 990 | 1 923 | 1 791 | 1 752 | 1 711 | 1 691 | .. | .. | 1 806 | 1 754 | 1 705 | 1 708 | 1 679 | 1 662 |
| Slovak Republic | .. | .. | .. | 1 853 | 1 816 | 1 791 | 1 793 | 1 785 | .. | .. | .. | .. | 1 776 | 1 782 | 1 742 | 1 749 |
| Slovenia | .. | .. | .. | .. | 1 710 | 1 655 | 1 649 | 1 640 | .. | .. | .. | .. | .. | 1 687 | 1 657 | 1 709 |
| Spain | 1 930 | 1 825 | 1 741 | 1 733 | 1 731 | 1 658 | 1 685 | 1 686 | 1 844 | 1 750 | 1 678 | 1 668 | 1 687 | 1 621 | 1 644 | 1 645 |
| Sweden | 1 530 | 1 532 | 1 561 | 1 640 | 1 642 | 1 618 | 1 636 | 1 621 | .. | .. | .. | .. | .. | .. | .. | .. |
| Switzerland[e] | .. | .. | .. | 1 704 | 1 688 | 1 633 | 1 636 | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Turkey | 1 964 | 1 935 | 1 866 | 1 876 | 1 937 | 1 911 | 1 864 [b] | 1 855 [b] | .. | .. | .. | .. | .. | .. | .. | .. |
| United Kingdom | 1 813 | 1 711 | 1 765 | 1 731 | 1 700 | 1 677 | 1 625 | 1 654 | 1 747 | 1 649 | 1 700 | 1 695 | 1 680 | 1 658 | 1 611 | 1 637 |
| United States | 1 829 | 1 820 | 1 831 | 1 844 | 1 836 | 1 798 | 1 787 | 1 790 | 1 828 | 1 827 | 1 833 | 1 849 | 1 836 | 1 799 | 1 797 | 1 798 |
| OECD (weighted) | 1 924 | 1 903 | 1 881 | 1 864 | 1 844 | 1 797 | 1 765 | 1 765 | .. | .. | .. | .. | .. | .. | .. | .. |
| Russian Fed. | .. | .. | .. | 1 891 | 1 982 | 1 999 | 1 979 | 1 982 | .. | .. | .. | 1 886 | 2 000 | 2 020 | 2 000 | 2 002 |

*a)* Total hours worked per year divided by the average number of people in employment. The data are intended for comparisons of trends over time; they are unsuitable for comparisons of the level of average annual hours of work for a given year, because of differences in their sources and method of calculation. Part-time and part-year workers are covered as well as full-time workers.

*b)* OECD estimates.

*c)* Data for dependent employment refer to establishments in manufacturing with five or more employees.

*d)* Data for dependent employment refer to establishments with five or more regular employees.

*e)* OECD estimates on hours per worker are obtained by dividing total hours worked from the Federal Statistical Office (FSO) by SPAO based average employment from the FSO website, both series referring to National Accounts domestic concept.

*Source:* The series on annual hours actually worked per person in total employment presented in this table for all 34 OECD countries are consistent with the series retained for the calculation of productivity measures in the *OECD Productivity Database* (*www.oecd.org/statistics/productivity/compendium* ). However, there may be differences for some countries given that the main purpose of the latter database is to report data series on labour input (i.e. total hours worked) and also because the updating of databases occurs at different moments of the year.

Hours actually worked per person in employment are according to National Accounts concepts for 19 countries: Austria, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Israel, Italy, Korea, the Netherlands, Norway, the Slovak Republic, Spain, Sweden, Switzerland and Turkey. OECD estimates for Belgium, Ireland, Luxembourg and Portugal for annual hours worked are based on the European Labour Force Survey, as are estimates for dependent employment for Austria, Estonia, Greece, the Slovak Republic and Slovenia. The table includes labour-force-survey-based estimates for the Russian Federation.

Country specific notes can be found at: *www.oecd.org/employment/outlook* and data at the *OECD Online Employment Database* : *www.oecd.org/employment/database.*

StatLink http://dx.doi.org/10.1787/888932853625

## Table L. **Incidence of long-term unemployment,[a] 12 months and over**

As a percentage of total unemployment in each age group

| | Total (15+) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55+) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 28.3 | 15.4 | 18.9 | 20.3 | 17.1 | 10.0 | 12.8 | 14.8 | 33.5 | 17.1 | 21.1 | 21.3 | 48.2 | 30.6 | 32.7 | 36.4 |
| Austria | 25.8 | 26.8 | 25.9 | 24.8 | 12.7 | 12.9 | 14.1 | 14.6 | 25.5 | 30.0 | 27.4 | 25.8 | 49.7 | 57.1 | 55.7 | 53.2 |
| Belgium | 56.3 | 50.4 | 48.3 | 44.7 | 32.1 | 29.7 | 32.1 | 29.3 | 62.8 | 54.8 | 51.2 | 46.7 | 85.7 | 80.3 | 74.6 | 73.1 |
| Canada | 11.3 | 7.4 | 13.5 | 12.5 | 4.0 | 2.2 | 5.6 | 5.1 | 12.2 | 7.7 | 12.0 | 12.0 | 18.7 | 12.5 | 22.2 | 19.6 |
| Chile | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Czech Republic | 48.8 | 53.4 | 41.6 | 43.4 | 37.8 | 33.6 | 30.5 | 32.3 | 53.3 | 58.3 | 43.9 | 45.7 | 45.6 | 51.7 | 45.8 | 48.0 |
| Denmark | 20.0 | 16.1 | 24.4 | 28.0 | 2.4 | 4.2 | 9.9 | 9.0 | 21.6 | 16.6 | 28.1 | 33.8 | 47.5 | 38.3 | 42.0 | 46.4 |
| Estonia | 46.3 | 49.5 | 56.8 | 54.1 | 26.4 | 30.6 | 39.4 | 29.8 | 51.9 | 52.9 | 59.5 | 59.4 | 50.9 | 72.4 | 66.2 | 66.4 |
| Finland | 29.0 | 23.0 | 22.6 | 21.7 | 8.8 | 5.5 | 5.4 | 5.7 | 34.0 | 25.9 | 26.5 | 24.3 | 56.5 | 47.6 | 44.6 | 43.8 |
| France | 39.6 | 40.2 | 41.4 | 40.3 | 21.1 | 24.3 | 28.3 | 28.4 | 42.8 | 43.0 | 43.6 | 41.4 | 67.7 | 66.9 | 59.3 | 60.7 |
| Germany | 51.5 | 56.6 | 48.0 | 45.5 | 23.5 | 32.2 | 23.9 | 23.3 | 51.0 | 57.5 | 49.7 | 46.0 | 69.1 | 76.9 | 63.7 | 62.8 |
| Greece | 56.4 | 50.0 | 49.6 | 59.3 | 51.3 | 41.6 | 42.4 | 49.0 | 59.0 | 51.7 | 50.6 | 60.5 | 54.4 | 59.7 | 55.2 | 67.3 |
| Hungary | 48.9 | 47.5 | 49.1 | 46.3 | 37.8 | 37.1 | 36.4 | 31.8 | 52.6 | 49.5 | 50.3 | 48.1 | 57.9 | 54.6 | 60.3 | 59.7 |
| Iceland[b] | (11.8) | (8.0) | (27.8) | (27.9) | - | - | (15.0) | (10.4) | (17.0) | (8.6) | (29.8) | (32.1) | (33.0) | (56.8) | (49.0) | (58.2) |
| Ireland | .. | 29.5 | 59.3 | 61.7 | .. | 20.3 | 46.7 | 48.3 | .. | 32.9 | 62.4 | 64.3 | .. | 42.4 | 66.6 | 73.9 |
| Israel | 12.0 | 24.9 | 20.2 | 13.3 | 6.1 | 13.2 | 8.8 | 8.9 | 13.5 | 27.3 | 21.6 | 14.0 | 21.8 | 41.6 | 33.4 | 20.4 |
| Italy | 61.3 | 47.3 | 51.9 | 53.0 | 58.2 | 40.7 | 47.8 | 49.7 | 62.7 | 49.4 | 52.9 | 53.5 | 63.1 | 52.6 | 55.4 | 58.7 |
| Japan | 25.5 | 32.0 | 39.4 | 38.5 | 21.5 | 20.0 | 30.0 | 31.0 | 22.5 | 33.1 | 40.5 | 39.7 | 36.0 | 39.6 | 42.6 | 40.3 |
| Korea | 2.3 | 0.6 | 0.4 | 0.3 | 1.0 | 0.4 | 0.1 | - | 2.8 | 0.7 | 0.5 | 0.4 | 3.0 | - | - | 0.2 |
| Luxembourg | (22.4) | (28.7) | (28.8) | (30.3) | (14.3) | (23.0) | (22.5) | (19.2) | (24.9) | (29.9) | (29.3) | (33.3) | (26.4) | (43.7) | (46.4) | (43.3) |
| Mexico | 1.2 | 2.7 | 2.0 | 1.9 | 0.9 | 1.4 | 1.0 | 0.9 | 1.2 | 3.5 | 2.5 | 2.6 | 4.3 | 4.4 | 4.4 | 2.0 |
| Netherlands | .. | 39.4 | 33.6 | 33.7 | .. | 12.6 | 13.7 | 13.8 | .. | 44.1 | 35.9 | 37.3 | .. | 74.4 | 59.7 | 57.0 |
| New Zealand | 19.8 | 6.1 | 9.0 | 13.2 | 9.8 | 2.4 | 3.9 | 6.3 | 22.9 | 9.0 | 12.0 | 15.7 | 44.8 | 15.8 | 17.3 | 28.7 |
| Norway[b] | (5.3) | (8.8) | (11.6) | (8.7) | (1.3) | (2.6) | (4.4) | (2.9) | (7.3) | (11.8) | (14.9) | (10.9) | (14.1) | (19.5) | (23.3) | (23.2) |
| Poland | 37.9 | 45.9 | 31.6 | 34.8 | 28.0 | 30.0 | 20.9 | 25.4 | 41.5 | 50.6 | 34.6 | 36.8 | 44.2 | 57.0 | 40.1 | 43.9 |
| Portugal | 42.9 | 47.1 | 48.2 | 48.7 | 21.0 | 27.7 | 26.5 | 30.9 | 48.4 | 49.5 | 50.7 | 50.6 | 75.1 | 67.9 | 69.4 | 67.6 |
| Slovak Republic | 54.6 | 70.8 | 63.9 | 63.7 | 43.1 | 53.9 | 50.1 | 52.4 | 59.9 | 74.5 | 66.7 | 66.2 | 60.1 | 82.6 | 74.4 | 69.3 |
| Slovenia | .. | 45.7 | 44.2 | 47.9 | .. | 29.2 | 35.3 | 32.2 | .. | 49.8 | 46.0 | 50.9 | .. | 57.4 | 46.2 | 54.8 |
| Spain[b] | 42.4 | 20.4 | 41.6 | 44.5 | 29.8 | 10.2 | 32.4 | 35.6 | 45.7 | 21.3 | 41.8 | 44.5 | 59.5 | 46.3 | 59.7 | 60.8 |
| Sweden[b] | 26.4 | 12.8 | 18.2 | 17.5 | 8.9 | 3.5 | 5.9 | 6.1 | 26.6 | 16.4 | 23.0 | 22.0 | 49.3 | 27.8 | 35.7 | 33.4 |
| Switzerland | 29.0 | 40.8 | 38.8 | 35.3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Turkey | 21.1 | 30.3 | 26.5 | 24.9 | 19.8 | 26.6 | 19.5 | 19.6 | 21.8 | 32.2 | 29.1 | 26.6 | 31.4 | 41.0 | 40.4 | 38.1 |
| United Kingdom[b] | 28.0 | 23.7 | 33.4 | 34.8 | 14.4 | 15.7 | 24.7 | 27.4 | 33.2 | 28.5 | 38.3 | 37.9 | 42.1 | 35.4 | 42.3 | 47.7 |
| United States[b] | 6.0 | 10.0 | 31.3 | 29.3 | 3.9 | 6.5 | 19.5 | 18.2 | 6.6 | 11.1 | 33.9 | 31.5 | 11.9 | 14.3 | 42.2 | 40.7 |
| OECD[d] | 30.8 | 28.6 | 33.7 | 34.3 | 19.9 | 16.4 | 21.3 | 22.4 | 34.1 | 32.2 | 36.6 | 37.0 | 41.5 | 39.3 | 43.7 | 43.8 |
| Brazil | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Russian Fed. | 46.2 | 40.6 | 32.9 | 30.9 | 32.6 | 28.6 | 21.1 | 20.0 | 50.2 | 45.9 | 36.5 | 34.5 | 62.8 | 44.2 | 40.8 | 38.6 |
| South Africa | .. | 57.7 | 58.8 | 57.7 | .. | 36.2 | 38.2 | 34.9 | .. | 61.8 | 62.0 | 61.3 | .. | 80.5 | 69.5 | 65.5 |

## Table L. **Incidence of long-term unemployment,[a] 12 months and over** *(cont.)*

As a percentage of male unemployment in each age group

| | Men (15+) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55+) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 31.8 | 16.3 | 19.7 | 21.2 | 18.3 | 10.0 | 13.9 | 16.4 | 37.3 | 18.8 | 21.7 | 21.7 | 51.6 | 31.1 | 32.8 | 35.6 |
| Austria | 28.1 | 26.6 | 27.5 | 25.7 | 10.0 | 13.9 | 12.7 | 14.7 | 27.2 | 29.0 | 28.9 | 26.2 | 56.4 | 55.5 | 57.7 | 55.5 |
| Belgium | 55.9 | 49.3 | 47.1 | 46.0 | 29.4 | 30.1 | 31.6 | 28.7 | 63.1 | 53.0 | 49.5 | 49.2 | 80.3 | 80.2 | 73.7 | 73.8 |
| Canada | 12.3 | 8.4 | 14.5 | 12.7 | 4.4 | 2.2 | 5.9 | 5.1 | 13.7 | 9.4 | 13.3 | 11.9 | 20.0 | 13.5 | 23.3 | 20.5 |
| Chile | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Czech Republic | 47.5 | 51.7 | 41.7 | 41.7 | 37.2 | 35.4 | 34.3 | 34.3 | 53.3 | 56.5 | 43.2 | 43.2 | 45.2 | 54.9 | 47.1 | 47.1 |
| Denmark | 20.1 | 15.6 | 26.2 | 28.5 | .. | 3.3 | 10.1 | 9.0 | 21.3 | 17.6 | 31.4 | 34.7 | 49.1 | 35.4 | 42.3 | 45.3 |
| Estonia | 49.0 | 52.8 | 59.7 | 55.2 | 29.4 | 34.2 | 36.7 | 32.2 | 55.7 | 55.4 | 64.9 | 60.6 | 49.8 | 79.4 | 68.9 | 69.7 |
| Finland | 32.2 | 26.5 | 26.6 | 25.3 | 8.8 | 5.9 | 7.3 | 6.5 | 39.1 | 30.2 | 31.3 | 28.8 | 58.3 | 52.4 | 46.9 | 45.5 |
| France | 38.3 | 40.4 | 42.2 | 41.1 | 19.8 | 28.6 | 29.8 | 30.4 | 41.7 | 42.0 | 44.6 | 41.9 | 66.3 | 66.2 | 57.9 | 62.0 |
| Germany | 50.1 | 56.7 | 49.3 | 46.8 | 23.7 | 33.5 | 26.2 | 24.8 | 49.1 | 57.9 | 51.2 | 47.8 | 69.1 | 76.2 | 64.3 | 63.0 |
| Greece | 49.4 | 41.8 | 45.0 | 56.6 | 42.5 | 32.8 | 38.8 | 47.4 | 52.6 | 42.7 | 45.4 | 57.0 | 51.7 | 58.2 | 52.9 | 68.0 |
| Hungary | 51.1 | 47.3 | 48.9 | 46.7 | 40.7 | 38.4 | 37.5 | 34.6 | 54.4 | 49.0 | 50.1 | 48.6 | 62.9 | 55.0 | 60.1 | 56.1 |
| Iceland[b] | (8.7) | (9.5) | (28.3) | (27.5) | - | - | (13.3) | (9.7) | (17.1) | (14.3) | (33.1) | (31.5) | .. | (59.3) | (47.4) | (57.5) |
| Ireland | .. | 34.8 | 65.2 | 68.2 | .. | 23.8 | 52.3 | 54.6 | .. | 39.1 | 68.2 | 70.5 | .. | 44.5 | 70.3 | 79.2 |
| Israel | 13.5 | 28.9 | 21.4 | 13.4 | 8.1 | 15.7 | 10.3 | 8.1 | 13.7 | 31.0 | 21.5 | 13.9 | 25.5 | 44.4 | 36.4 | 21.7 |
| Italy | 61.4 | 45.5 | 51.3 | 51.6 | 58.0 | 41.0 | 47.4 | 49.9 | 62.8 | 46.7 | 52.0 | 51.2 | 66.0 | 53.4 | 57.7 | 59.5 |
| Japan | 30.7 | 40.3 | 47.3 | 46.2 | 26.3 | 24.0 | 34.8 | 30.4 | 29.4 | 43.0 | 51.0 | 50.5 | 35.6 | 44.7 | 45.7 | 44.4 |
| Korea | 3.1 | 0.7 | 0.5 | 0.3 | 1.4 | 0.3 | - | - | 3.5 | 0.9 | 0.7 | 0.3 | 3.6 | - | - | 0.1 |
| Luxembourg | (26.4) | (35.4) | (33.1) | (28.8) | (20.4) | (30.5) | (23.2) | (23.2) | (28.7) | (36.5) | (34.5) | (30.4) | (26.4) | (46.5) | (46.7) | (37.3) |
| Mexico | 0.6 | 3.0 | 2.3 | 1.7 | - | 1.2 | 1.1 | 0.8 | 0.5 | 4.2 | 2.8 | 2.3 | 5.3 | 4.8 | 4.5 | 2.4 |
| Netherlands | .. | 41.8 | 35.3 | 34.5 | .. | 12.2 | 13.9 | 13.4 | .. | 45.9 | 36.6 | 36.8 | .. | 75.3 | 61.3 | 56.0 |
| New Zealand | 23.7 | 6.8 | 10.2 | 14.1 | 12.1 | 2.3 | 4.6 | 6.4 | 27.3 | 10.7 | 13.8 | 17.3 | 47.6 | 18.2 | 22.4 | 29.5 |
| Norway[b] | (6.9) | (10.2) | (13.7) | (9.5) | (1.3) | (3.1) | (5.9) | (3.3) | (9.3) | (14.4) | (17.0) | (11.7) | (16.6) | (18.5) | (30.5) | (24.9) |
| Poland | 34.1 | 45.8 | 30.7 | 34.0 | 25.5 | 31.0 | 21.9 | 25.4 | 37.3 | 49.9 | 32.9 | 35.7 | 43.3 | 57.2 | 39.9 | 42.9 |
| Portugal | 46.7 | 47.7 | 47.9 | 48.9 | 18.8 | 26.6 | 29.3 | 33.7 | 49.0 | 49.9 | 49.3 | 49.9 | 84.1 | 66.9 | 67.8 | 66.1 |
| Slovak Republic | 54.1 | 72.3 | 65.0 | 65.1 | 43.9 | 57.8 | 51.7 | 54.6 | 59.2 | 75.6 | 68.6 | 68.4 | 59.3 | 86.5 | 71.9 | 67.9 |
| Slovenia | .. | 45.3 | 45.1 | 48.8 | .. | 27.8 | 32.9 | 36.9 | .. | 51.1 | 48.2 | 52.3 | .. | 57.9 | 44.2 | 47.8 |
| Spain[b] | 36.6 | 17.3 | 40.6 | 43.5 | 26.7 | 8.7 | 34.8 | 38.6 | 36.6 | 17.3 | 39.9 | 42.5 | 59.7 | 41.6 | 58.0 | 59.7 |
| Sweden[b] | 29.3 | 14.2 | 20.4 | 19.3 | 11.0 | 3.3 | 6.9 | 7.8 | 30.1 | 18.9 | 25.9 | 23.8 | 48.6 | 28.1 | 36.4 | 34.5 |
| Switzerland | 28.2 | 37.9 | 37.1 | 33.5 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Turkey | 18.1 | 27.0 | 22.5 | 21.2 | 16.0 | 23.3 | 15.8 | 16.8 | 19.0 | 28.3 | 24.1 | 21.8 | 31.4 | 40.4 | 40.0 | 37.2 |
| United Kingdom[b] | 33.7 | 28.4 | 37.8 | 38.2 | 17.4 | 18.9 | 27.7 | 30.8 | 40.3 | 34.7 | 43.6 | 41.7 | 46.1 | 39.5 | 46.3 | 49.4 |
| United States[b] | 6.7 | 10.7 | 32.2 | 29.6 | 4.5 | 7.6 | 20.1 | 19.9 | 6.7 | 11.4 | 34.9 | 31.6 | 15.6 | 16.8 | 43.5 | 40.6 |
| OECD[d] | 29.7 | 28.6 | 34.0 | 34.4 | 19.1 | 17.1 | 22.0 | 23.4 | 32.4 | 31.8 | 36.8 | 36.7 | 41.9 | 40.3 | 44.1 | 43.8 |
| Brazil | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Russian Fed. | 42.7 | 39.1 | 32.5 | 30.2 | 31.2 | 28.4 | 20.9 | 20.1 | 45.7 | 43.7 | 35.9 | 33.5 | 59.2 | 44.4 | 41.9 | 38.2 |
| South Africa | .. | 52.6 | 54.7 | 54.0 | .. | 34.2 | 34.7 | 32.2 | .. | 55.5 | 57.6 | 57.2 | .. | 80.7 | 66.5 | 61.9 |

## Table L. **Incidence of long-term unemployment,[a] 12 months and over** *(cont.)*

As a percentage of female unemployment in each age group

| | Women (15+) | | | | Youth (15-24) | | | | Prime age (25-54) | | | | Older population (55+) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 | 2000 | 2007 | 2011 | 2012 |
| Australia | 23.6 | 14.4 | 18.0 | 19.3 | 15.5 | 10.0 | 11.4 | 12.8 | 28.3 | 15.6 | 20.6 | 20.9 | 38.3 | 30.0 | 32.4 | 37.8 |
| Austria | 22.8 | 27.1 | 24.2 | 23.7 | 16.5 | 12.0 | 15.6 | 14.5 | 23.5 | 30.8 | 25.9 | 25.5 | 31.7 | 59.6 | 50.8 | 48.7 |
| Belgium | 56.7 | 51.4 | 49.8 | 43.1 | 34.4 | 29.3 | 32.6 | 30.2 | 62.6 | 56.6 | 53.1 | 43.8 | .. | 80.3 | 75.9 | 72.4 |
| Canada | 10.0 | 6.2 | 12.3 | 12.2 | 3.4 | 2.2 | 5.0 | 5.1 | 10.5 | 5.6 | 10.6 | 12.2 | 17.0 | 11.3 | 20.6 | 18.4 |
| Chile | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Czech Republic | 49.8 | 54.7 | 41.5 | 45.0 | 38.5 | 31.1 | 24.6 | 29.4 | 53.3 | 59.4 | 44.4 | 47.6 | 46.3 | 46.6 | 44.0 | 49.3 |
| Denmark | 20.0 | 16.6 | 22.3 | 27.5 | 4.7 | 5.3 | 9.8 | 8.8 | 22.0 | 15.8 | 24.9 | 32.7 | 45.0 | 41.0 | 41.6 | 47.8 |
| Estonia | 42.9 | 44.7 | 53.6 | 52.9 | 22.2 | 22.2 | 43.1 | 26.1 | 47.7 | 50.4 | 54.1 | 58.0 | 53.1 | 29.0 | 62.9 | 62.5 |
| Finland | 26.2 | 19.5 | 17.6 | 17.1 | 8.8 | 5.0 | 3.1 | 4.7 | 29.6 | 21.8 | 20.2 | 18.3 | 54.5 | 42.2 | 41.3 | 41.3 |
| France | 40.8 | 40.0 | 40.7 | 39.5 | 22.3 | 19.7 | 26.6 | 26.0 | 43.6 | 44.0 | 42.7 | 41.0 | 69.2 | 67.8 | 60.8 | 59.2 |
| Germany | 53.1 | 56.5 | 46.2 | 43.7 | 23.2 | 30.4 | 20.6 | 21.2 | 52.9 | 57.0 | 47.8 | 43.8 | 69.1 | 77.8 | 62.8 | 62.6 |
| Greece | 61.0 | 54.8 | 54.0 | 62.0 | 57.0 | 47.1 | 45.7 | 50.4 | 62.9 | 56.6 | 55.4 | 64.0 | 58.9 | 61.9 | 59.3 | 66.2 |
| Hungary | 45.7 | 47.9 | 49.2 | 45.7 | 33.1 | 35.5 | 34.9 | 28.3 | 50.1 | 50.1 | 50.6 | 47.5 | 37.5 | 54.1 | 60.6 | 63.8 |
| Iceland[b] | (14.1) | (5.7) | (27.2) | (28.5) | - | - | (18.3) | (11.2) | (16.9) | (2.7) | (26.2) | (32.9) | (27.4) | (53.1) | (52.0) | (59.3) |
| Ireland | .. | 21.3 | 47.3 | 48.8 | .. | 15.3 | 37.4 | 38.0 | .. | 23.3 | 50.0 | 51.8 | .. | 37.6 | 55.9 | 57.6 |
| Israel | 10.4 | 20.9 | 18.9 | 13.1 | 4.2 | 11.2 | 7.4 | 9.8 | 13.2 | 23.8 | 21.8 | 14.1 | 12.4 | 36.3 | 28.5 | 18.2 |
| Italy | 61.2 | 49.1 | 52.4 | 54.6 | 58.4 | 40.5 | 48.2 | 49.4 | 62.7 | 51.5 | 53.8 | 55.9 | 56.4 | 50.8 | 49.0 | 57.0 |
| Japan | 17.1 | 19.4 | 26.7 | 26.6 | 14.8 | 15.0 | 23.5 | 31.6 | 13.8 | 20.6 | 26.0 | 24.7 | 37.5 | 20.0 | 33.3 | 29.4 |
| Korea | 0.8 | 0.3 | 0.2 | 0.3 | 0.5 | 0.5 | 0.1 | - | 0.9 | 0.2 | 0.3 | 0.5 | 1.1 | - | - | 0.3 |
| Luxembourg | (18.8) | (22.3) | (25.4) | (31.8) | (8.4) | (14.8) | (21.9) | (14.3) | (21.9) | (24.0) | (25.4) | (35.8) | - | (39.1) | (46.0) | (49.9) |
| Mexico | 2.0 | 2.3 | 1.6 | 2.2 | 2.1 | 1.8 | 0.8 | 1.0 | 1.9 | 2.7 | 2.1 | 3.1 | - | 1.8 | 3.9 | - |
| Netherlands | .. | 37.1 | 31.6 | 32.7 | .. | 13.0 | 13.6 | 14.2 | .. | 42.7 | 34.9 | 37.9 | .. | 72.8 | 57.2 | 58.6 |
| New Zealand | 14.7 | 5.4 | 7.7 | 12.4 | 7.0 | 2.4 | 3.0 | 6.2 | 17.7 | 7.6 | 10.5 | 14.4 | 37.5 | 12.5 | 11.7 | 27.5 |
| Norway[b,c] | (3.3) | (7.1) | (9.0) | (7.5) | (1.4) | (2.0) | (2.7) | (2.4) | (4.4) | (9.2) | (12.4) | (9.8) | (9.3) | (21.4) | (14.8) | (19.8) |
| Poland | 41.3 | 46.0 | 32.5 | 35.6 | 30.7 | 29.0 | 19.7 | 25.5 | 45.1 | 51.3 | 36.2 | 37.8 | 45.7 | 56.7 | 40.4 | 45.9 |
| Portugal | 40.0 | 46.7 | 48.5 | 48.5 | 22.1 | 28.6 | 23.5 | 27.8 | 48.0 | 49.1 | 52.1 | 51.3 | 58.9 | 69.5 | 71.8 | 69.9 |
| Slovak Republic | 55.1 | 69.4 | 62.5 | 62.2 | 42.0 | 48.5 | 47.5 | 48.5 | 60.5 | 73.5 | 64.4 | 63.9 | 63.3 | 75.8 | 78.7 | 71.3 |
| Slovenia | .. | 46.1 | 43.1 | 47.0 | .. | 31.1 | 38.3 | 25.5 | .. | 48.9 | 43.6 | 49.7 | .. | 56.7 | 52.8 | 69.1 |
| Spain[b] | 46.6 | 22.9 | 42.7 | 45.6 | 32.1 | 11.4 | 29.5 | 32.2 | 51.3 | 24.2 | 43.9 | 46.7 | 59.0 | 51.7 | 62.2 | 62.2 |
| Sweden[b] | 22.8 | 11.3 | 15.8 | 15.4 | 6.4 | 3.7 | 4.7 | 4.2 | 22.1 | 14.0 | 19.8 | 20.0 | 50.3 | 27.3 | 34.7 | 31.8 |
| Switzerland | 29.7 | 43.0 | 40.5 | 37.2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Turkey | 29.8 | 38.9 | 34.2 | 31.9 | 28.5 | 32.9 | 25.1 | 23.9 | 31.3 | 43.8 | 39.5 | 35.8 | .. | 50.0 | 44.4 | 45.5 |
| United Kingdom[b] | 19.0 | 17.6 | 27.5 | 30.4 | 9.9 | 11.2 | 20.3 | 22.6 | 22.9 | 21.5 | 31.6 | 33.5 | 30.4 | 25.7 | 33.3 | 44.2 |
| United States[b] | 5.3 | 9.0 | 30.2 | 28.9 | 3.1 | 5.1 | 18.7 | 16.1 | 6.4 | 10.7 | 32.7 | 31.5 | 7.4 | 11.2 | 40.6 | 40.8 |
| OECD[d] | 32.0 | 28.6 | 33.2 | 34.1 | 20.9 | 15.6 | 20.5 | 21.1 | 35.7 | 32.7 | 36.4 | 37.3 | 40.6 | 37.6 | 43.1 | 43.9 |
| Brazil | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Russian Fed. | 50.0 | 42.4 | 33.4 | 31.7 | 34.2 | 28.7 | 21.4 | 19.9 | 55.1 | 48.3 | 37.2 | 35.7 | 67.4 | 43.9 | 39.2 | 39.3 |
| South Africa | .. | 62.3 | 63.4 | 62.0 | .. | 38.3 | 42.2 | 37.8 | .. | 66.9 | 66.8 | 65.9 | .. | 79.8 | 76.0 | 73.0 |

*Note:* For country details related to data on unemployment by duration of job search, see PDF in source below. Data in brackets are based on small sample sizes.

*a)* Persons for whom no duration of unemployment was specified are excluded from the total used in the calculation.

*b)* The lower age limit is 16 instead of 15 for Iceland up to 2008, Italy after 2009, Norway up to 2005 and Sweden up to 2006.

*c)* Data for 2000 refer to 1999.

*d)* Weighted average.

*Source and definition:* *OECD Online Employment Database* : *www.oecd.org/employment/database* and *www.oecd.org/els/emp/lfsnotes_sources.pdf.*

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## Table M. **Real average annual wages and real unit labour costs in the total economy**

Annualised growth rates, percentages

| | Average wages in 2012 in USD PPPs[a] | Average wages[b] | | | | | Unit labour costs[b] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2000-07 | 2007-12 | 2007 | 2011 | 2012 | 2000-07 | 2007-12 | 2007 | 2011 | 2012 |
| Australia | 49 655 | 1.6 | 0.9 | 2.8 | 2.0 | 1.9 | 1.1 | 0.3 | 1.6 | 2.0 | 0.1 |
| Austria | 44 644 | 0.8 | 0.3 | 0.6 | -1.2 | 0.2 | -1.1 | 0.4 | -1.0 | -2.2 | 0.6 |
| Belgium | 47 487 | 0.4 | 0.3 | -0.3 | 0.3 | 0.4 | -0.3 | 0.8 | -0.6 | -0.4 | 1.0 |
| Canada | 45 521 | 1.5 | 1.2 | 2.4 | 1.1 | 2.3 | 1.0 | 0.7 | 1.7 | 0.0 | 1.1 |
| Chile | .. | .. | .. | .. | .. | .. | 0.3 | 2.0 | 2.1 | -1.2 | 0.8 |
| Czech Republic | 20 487 | 4.9 | 1.0 | 3.1 | 1.9 | -0.1 | 0.6 | -0.1 | -0.2 | 0.0 | 0.7 |
| Denmark | 45 031 | 1.6 | 0.5 | 0.4 | -0.5 | -1.2 | -1.9 | 0.8 | -2.2 | -0.7 | 1.2 |
| Estonia | 18 222 | 8.6 | -0.8 | 13.6 | -4.1 | 3.4 | 1.3 | 0.0 | 3.7 | -2.3 | -1.2 |
| Finland | 39 215 | 2.2 | 1.0 | 1.6 | 0.0 | 0.7 | 2.2 | -0.8 | 7.3 | -6.3 | 1.8 |
| France | 39 600 | 1.1 | 0.8 | 0.5 | 0.3 | 0.4 | 0.0 | 1.0 | -1.6 | -1.5 | 0.6 |
| Germany | 42 121 | 0.2 | 0.7 | 0.1 | 1.7 | 1.0 | 0.1 | 0.8 | -0.3 | -0.4 | 0.3 |
| Greece | 26 063 | 2.5 | -3.0 | 0.5 | -5.6 | -4.5 | 0.6 | -2.2 | 0.8 | -5.2 | -7.6 |
| Hungary | 20 332 | 4.4 | -1.0 | -1.3 | -0.8 | -1.7 | 1.0 | -1.3 | 0.0 | -2.9 | 1.5 |
| Iceland | .. | .. | .. | .. | .. | .. | 1.8 | -3.1 | 4.4 | 0.5 | 0.6 |
| Ireland | 51 565 | 2.5 | 1.8 | 2.9 | -1.6 | -0.8 | 1.0 | -0.5 | 0.2 | -4.1 | -1.6 |
| Israel | 28 723 | | -0.4 | 2.0 | 1.0 | 2.4 | -0.5 | -1.2 | 0.7 | -1.4 | 0.3 |
| Italy | 33 849 | 0.3 | -0.4 | 0.0 | -1.5 | -1.9 | 0.5 | 0.5 | 0.0 | -1.6 | -0.5 |
| Japan | 34 138 | -0.3 | 0.3 | -0.9 | 2.4 | -1.4 | -1.3 | 0.4 | -1.7 | 1.9 | -1.5 |
| Korea | 36 757 | 2.5 | 0.7 | 1.8 | 1.4 | 1.6 | 0.5 | -0.7 | -0.3 | -1.0 | -0.1 |
| Luxembourg | 52 639 | 1.1 | 0.1 | 2.0 | -0.4 | -1.1 | 0.4 | 2.5 | -0.3 | 0.6 | 1.3 |
| Mexico | 13 775 | .. | -0.6 | 0.7 | 2.0 | .. | 0.1 | -1.1 | -0.8 | -0.3 | -2.9 |
| Netherlands | 46 646 | 0.5 | 0.5 | 0.8 | -1.0 | -1.0 | -0.3 | 0.7 | 0.0 | -1.3 | -0.9 |
| New Zealand | .. | .. | .. | .. | .. | .. | 2.3 | -0.4 | 3.0 | -0.3 | -1.8 |
| Norway | 46 412 | 3.3 | 2.0 | 3.9 | 3.3 | 2.6 | 2.3 | 3.0 | 6.8 | 3.9 | 2.7 |
| Poland | 21 110 | 1.1 | 1.7 | 2.0 | 0.7 | 0.1 | -1.5 | -0.5 | 1.4 | -4.2 | -1.1 |
| Portugal | 23 098 | 0.1 | -0.4 | 1.3 | -6.0 | -3.9 | 0.0 | -1.2 | -1.4 | -3.7 | -6.2 |
| Slovak Republic | 20 210 | 4.3 | 0.4 | 5.6 | -2.5 | -1.8 | -2.5 | -1.1 | -2.7 | -3.3 | -3.0 |
| Slovenia | 32 193 | .. | 0.7 | 1.8 | 0.0 | -2.8 | -0.3 | 0.3 | -1.3 | -2.6 | -1.3 |
| Spain | 34 525 | -0.1 | 1.0 | 1.3 | -1.3 | -2.3 | 0.2 | -2.0 | 1.3 | -4.0 | -6.5 |
| Sweden | 39 494 | 1.9 | 1.2 | 3.3 | 1.7 | 2.1 | -0.1 | -0.3 | 2.8 | -1.5 | 1.3 |
| Switzerland | 53 265 | 1.1 | 0.6 | 1.2 | 0.5 | 2.6 | 0.2 | 1.0 | -0.1 | 1.7 | 2.3 |
| Turkey | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| United Kingdom | 44 223 | 1.9 | -1.0 | 2.6 | -2.3 | -0.3 | 0.2 | -0.6 | -0.6 | -3.0 | -0.2 |
| United States | 55 048 | 1.2 | 0.1 | 2.0 | 0.3 | -0.2 | -0.3 | -0.7 | 0.5 | -0.2 | -0.7 |
| OECD[c] | 43 523 | 0.9 | 0.3 | 1.3 | 0.3 | -0.1 | -0.6 | -0.3 | -0.2 | -0.8 | -0.9 |

*Note:* Average annual wages per full-time equivalent dependent employee are obtained by dividing the national-accounts-based total wage bill by the average number of employees in the total economy, which is then multiplied by the ratio of average usual weekly hours per full-time employee to average usually weekly hours for all employees. For more details, see: *www.oecd.org/employment/outlook.*

*a)* Average wages are converted in USD PPPs using 2012 USD PPPs for private consumption.

*b)* Average annual wages are deflated by a price deflator for private final consumption expenditures in 2012 prices.

*c)* Aggregates are weighted averages computed on the basis of 2012 GDP weights expressed in 2012 purchasing power parities and include the countries shown.

*Source:* OECD estimates based on *OECD National Accounts Database* (annual and quarterly) and OECD (2013), *OECD Economic Outlook,* Vol. 2013, No.1, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eco_outlook-v2013-1-en.*

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## Table N. **Earnings dispersion and incidence of high and low pay**

| | Earnings dispersion[a] | | | | | | Incidence of (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 9th to 1st earnings deciles | | 9th to 5th earnings deciles | | 5th to 1st earnings deciles | | Low pay[b] | | High pay[c] | |
| | 2001 | 2011 | 2001 | 2011 | 2001 | 2011 | 2001 | 2011 | 2001 | 2011 |
| Australia | 3.12 | 3.31 | 1.89 | 1.93 | 1.65 | 1.71 | 13.9 | 16.9 | .. | .. |
| Austria | 3.23 | 3.34 | 1.90 | 1.94 | 1.70 | 1.72 | 15.2 | 16.1 | 84.8 | 83.9 |
| Belgium | 2.34 | 2.38 | 1.70 | 1.73 | 1.38 | 1.37 | 6.3 | 4.3 | 11.0 | 13.1 |
| Canada | 3.69 | 3.67 | 1.82 | 1.90 | 2.03 | 1.93 | 22.0 | 20.3 | 13.8 | 10.4 |
| Chile | 5.21 | 4.38 | 3.13 | 2.92 | 1.67 | 1.50 | 15.6 | 9.4 | 30.2 | 27.6 |
| Czech Republic | 2.90 | 3.46 | 1.74 | 1.85 | 1.66 | 1.87 | 14.9 | 20.0 | .. | .. |
| Denmark | 2.59 | 2.80 | 1.63 | 1.68 | 1.59 | 1.67 | 13.9 | 16.7 | .. | .. |
| Estonia | 5.88 | 4.05 | 2.35 | 2.06 | 2.50 | 1.97 | 28.3 | .. | 25.2 | .. |
| Finland | 2.45 | 2.58 | 1.73 | 1.75 | 1.41 | 1.48 | 4.6 | 9.3 | 23.7 | 16.9 |
| France | 3.10 | 2.89 | 1.97 | 1.98 | 1.57 | 1.46 | .. | .. | .. | .. |
| Germany | 3.01 | 3.33 | 1.74 | 1.80 | 1.74 | 1.85 | 16.7 | 18.8 | 16.0 | 17.9 |
| Greece | 3.44 | 2.99 | 2.00 | 1.87 | 1.72 | 1.60 | 20.0 | 12.5 | 22.1 | 18.0 |
| Hungary | 4.12 | 4.10 | 2.23 | 2.37 | 1.85 | 1.73 | 21.7 | 20.0 | .. | .. |
| Iceland | 3.15 | 2.88 | 1.72 | 1.75 | 1.83 | 1.65 | 18.7 | 14.7 | 15.8 | 16.8 |
| Ireland | 3.27 | 3.78 | 1.92 | 2.02 | 1.70 | 1.87 | 17.8 | 21.1 | .. | .. |
| Israel | 5.37 | 4.91 | 2.72 | 2.65 | 1.97 | 1.85 | 24.7 | 22.1 | 29.4 | 27.9 |
| Italy | 2.22 | 2.22 | 1.54 | 1.53 | 1.44 | 1.45 | 9.5 | 9.5 | 12.6 | 9.8 |
| Japan | 2.96 | 2.97 | 1.83 | 1.84 | 1.62 | 1.62 | 14.6 | 14.4 | .. | .. |
| Korea | 4.09 | 4.85 | 2.04 | 2.33 | 2.01 | 2.08 | 24.2 | 25.1 | .. | .. |
| Luxembourg | 3.03 | 3.41 | 1.90 | 2.05 | 1.60 | 1.66 | 20.8 | .. | 18.0 | .. |
| Netherlands | 2.79 | 2.90 | 1.75 | 1.77 | 1.59 | 1.64 | 12.7 | .. | 17.5 | .. |
| New Zealand | 2.64 | 2.91 | 1.76 | 1.85 | 1.50 | 1.57 | 12.2 | 13.7 | .. | .. |
| Norway | 2.06 | 2.34 | 1.44 | 1.48 | 1.43 | 1.58 | .. | .. | .. | .. |
| Poland | 4.13 | 3.48 | 2.23 | 2.04 | 1.85 | 1.70 | 24.0 | 20.7 | 24.1 | 23.4 |
| Portugal | 4.65 | 3.70 | 2.84 | 2.62 | 1.64 | 1.42 | 14.1 | 6.5 | 27.5 | 27.1 |
| Slovak Republic | 3.25 | 3.65 | 1.89 | 2.01 | 1.72 | 1.82 | 17.0 | 20.0 | .. | .. |
| Slovenia | .. | 3.34 | .. | 2.03 | .. | 1.64 | .. | .. | .. | .. |
| Spain | 3.55 | 3.24 | 2.10 | 1.96 | 1.69 | 1.65 | 16.3 | 15.3 | 23.3 | 22.1 |
| Sweden | 2.30 | 2.31 | 1.67 | 1.66 | 1.38 | 1.39 | .. | .. | .. | .. |
| Switzerland | 2.56 | 2.70 | 1.72 | 1.84 | 1.49 | 1.47 | 9.6 | 9.2 | .. | .. |
| Turkey | .. | 3.80 | .. | 3.22 | .. | 1.18 | .. | .. | .. | .. |
| United Kingdom[d] | 3.53 | 3.61 | 1.93 | 2.00 | 1.82 | 1.80 | 20.7 | 20.6 | .. | .. |
| United States | 4.63 | 5.03 | 2.25 | 2.38 | 2.06 | 2.11 | 23.8 | 25.1 | .. | .. |
| OECD[e] | 3.39 | 3.37 | 1.97 | 2.02 | 1.70 | 1.67 | 16.9 | 16.1 | 24.7 | 24.2 |

*Note:* Estimates of earnings used in the calculations refer to gross earnings of full-time wage and salary workers. However, this definition may slightly vary from one country to another. Further information on the national data sources and earnings concepts used in the caculations can be found at: *www.oecd.org/employment/outlook.*

*a)* Earnings dispersion is measured by the ratio of 9th to 1st deciles limits of earnings, 9th to 5th deciles and 5th to 1st deciles. Data refer to 2000 (instead of 2001) for Ireland, Italy and Switzerland; to 2002 for Estonia, Luxembourg, the Netherlands and the Slovak Republic; to 2003 for Chile, to 2004 for Austria, Greece, Iceland, Portugal and Spain; and to 2005 for Poland. They refer to 2009 (instead of 2011) for France; and to 2010 for Belgium, Estonia, Germany, Italy, Luxembourg, the Netherlands, Slovenia, Switzerland and Turkey.

*b)* The incidence of low pay refers to the share of workers earning less than two-thirds of median earnings. See note *a* for countries with different time periods.

*c)* The incidence of high pay refers to the share of workers earning more than one-and-a-half time median earnings. See note *a* for countries with different time periods.

*d)* For the United Kingdom, there are breaks in series in 1997, 2004 and 2006 and 2011; in each case, data were spliced from *new-to-old* series on 2011 data, then 2006, 2004 and finally 1997.

*e)* Unweighted average for above countries.

*Source: OECD Earnings Distribution Database.*

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## Table O. **Relative earnings: Gender, age and education gaps**

Percentages

| | Gender[a] | | Age[b] | | | | Education/Skills[c] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women / Men | | 15-24 / 25-54 | | 55-64 / 25-54 | | Low / Medium | | High / Medium | |
| | 2001 | 2011 | 2001 | 2011 | 2001 | 2011 | 2006 | 2010 | 2006 | 2010 |
| Australia | 14 | 16 | 37 | 39 | -1 | -2 | .. | 14 | .. | -37 |
| Austria | 23 | 19 | .. | 36 | .. | -40 | 30 | 28 | -40 | -50 |
| Belgium | 13 | 7 | 31 | 34 | -27 | -27 | 10 | 8 | -32 | -37 |
| Canada | 24 | 19 | 42 | 41 | -3 | -2 | .. | 20 | .. | -35 |
| Chile | .. | 16 | 49 | 40 | -14 | -11 | .. | .. | .. | .. |
| Czech Republic | 20 | 16 | 32 | 37 | -15 | -1 | 32 | 25 | -63 | -103 |
| Denmark | 12 | 9 | 31 | 39 | -2 | -1 | 8 | 11 | -30 | -26 |
| Estonia | 24 | .. | .. | .. | .. | .. | 17 | 8 | -45 | -36 |
| Finland | 21 | 19 | 29 | 35 | -10 | -3 | 4 | 1 | -43 | -34 |
| France | 10 | 14 | .. | .. | .. | .. | 8 | 11 | -43 | -45 |
| Germany | 19 | 17 | 42 | 36 | 2 | -6 | 21 | 12 | -44 | -59 |
| Greece | 14 | 10 | .. | 36 | .. | -23 | 19 | 21 | -52 | -48 |
| Hungary | 14 | 7 | 31 | 38 | .. | -3 | 21 | 27 | -89 | -104 |
| Iceland | 19 | 14 | .. | 42 | .. | 2 | 17 | .. | -42 | .. |
| Ireland | 20 | 4 | 34 | 50 | -18 | -18 | 14 | 8 | -50 | -66 |
| Israel | 28 | 22 | 53 | 54 | -26 | -19 | .. | 27 | .. | -56 |
| Italy | 7 | 11 | .. | .. | .. | .. | 20 | 17 | -49 | -52 |
| Japan | 34 | 27 | 44 | 41 | -2 | 3 | .. | .. | .. | .. |
| Korea | 39 | 37 | 45 | 44 | 16 | 18 | .. | 29 | .. | -46 |
| Luxembourg | 16 | .. | .. | .. | .. | .. | 26 | 29 | -56 | -61 |
| Netherlands | 19 | .. | .. | .. | .. | .. | 8 | 16 | -53 | -50 |
| New Zealand | 8 | 4 | 40 | 39 | 9 | 2 | .. | 20 | .. | -22 |
| Norway | 11 | 8 | 30 | 36 | -3 | -5 | 15 | .. | -25 | .. |
| Poland | 6 | 7 | .. | 36 | .. | -3 | 36 | 16 | -77 | -71 |
| Portugal | 13 | 15 | .. | 34 | .. | -33 | 37 | 32 | -88 | -71 |
| Slovak Republic | 20 | 15 | .. | 32 | .. | 4 | 27 | 26 | -42 | -75 |
| Slovenia | .. | .. | .. | .. | .. | .. | 25 | 25 | -85 | -86 |
| Spain | 13 | 11 | .. | 38 | .. | -22 | 13 | 17 | -38 | -36 |
| Sweden | 17 | 16 | 26 | 30 | -4 | -8 | 6 | 7 | -22 | -22 |
| Switzerland | 22 | 19 | .. | .. | .. | .. | .. | .. | .. | .. |
| Turkey | .. | .. | .. | .. | .. | .. | .. | | .. | .. |
| United Kingdom | 26 | 18 | 41 | 45 | 9 | 3 | 28 | 30 | -51 | -61 |
| United States | 24 | 18 | 47 | 50 | -4 | -9 | .. | 32 | .. | -70 |
| OECD[d] | 18 | 15 | 38 | 39 | -6 | -8 | 19 | 19 | -50 | -54 |

*a)* See note to Table N. The gender wage gap is unadjusted and is calculated as the difference between median earnings of men and women relative to median earnings of men. Data refer to 2000 (instead of 2001) for Ireland, Italy and Switzerland; to 2002 for Estonia, Luxembourg, the Netherlands and the Slovak Republic; to 2004 for Austria, Greece, Iceland, Portugal and Spain; and to 2005 for Poland. They refer to 2009 (instead of 2011) for France; and to 2010 for Belgium, Germany, Italy, the Netherlands, Slovenia, Switzerland and Turkey.

*b)* Age wage gaps are calculated as the difference between mean earnings of 25-54 year-olds and that of 15-24 year-olds (respectively 55-64 year-olds) relative to mean earnings of 25-54 year-olds. Data refer to 55 year-olds and over for Hungary, Korea and Norway. Data refer to 2000 for Chile and Ireland; and to 2010 for Belgium, Germany and Sweden.

*c)* Earnings by skill (or education levels) refer to mean annual earnings of full-time full-year 25-64 year-old employees. Earnings gaps by skill levels are calculated as the difference between mean earnings of medium-skilled employees and low- (respectively high-) skilled employees relative to mean earnings of medium-skilled employees.

The skill levels are based on the International Standard Classification of Education (ISCED, 1997). *Low (skills)* corresponds to less than upper secondary ISCED levels 0, 1, 2 and 3C short programmes. *Medium (skills)* corresponds to upper secondary and post-secondary non-tertiary ISCED levels 3A, 3B and 3C long programmes, and ISCED 4. *High (skills)* corresponds to tertiary ISCED levels 5A, 5B and 6. Data refer to 2009 for Australia, Belgium, Canada, Greece, Portugal and Spain; and to 2008 for France, Italy and the Netherlands.

*d)* Unweighted average for above countries.

*Source: OECD Earnings Distribution Database* for earnings gaps by gender and age; and OECD (2012), *Education at a Glance 2012: OECD Indicators*, OECD Publishing, *http://dx.doi.org/10.1787/eag-2012-en* for earnings gaps by skills or education levels.

StatLink http://dx.doi.org/10.1787/888932853701

## Table P. **Public expenditure and participant stocks in labour market programmes in OECD countries, 2010 and 2011**

| | Public expenditure (% of GDP) | | | | | | | | Participant stocks (% of labour force) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | | Active programmes | | *of which:* Active measures not including PES and administration | | Passive programmes | | Active measures not including PES and administration | | Passive programmes | |
| | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 |
| Australia | 0.81 | 0.80 | 0.31 | 0.29 | 0.14 | 0.14 | 0.50 | 0.51 | 2.27 | 2.26 | 5.15 | 5.25 |
| Austria | 2.24 | 2.03 | 0.84 | 0.75 | 0.66 | 0.57 | 1.40 | 1.28 | 4.10 | 3.59 | 6.81 | 6.30 |
| Belgium | 3.73 | 3.68 | 1.47 | 1.59 | 1.25 | 1.38 | 2.26 | 2.09 | 11.85 | 12.54 | 17.80 | 16.69 |
| Canada | 1.12 | 0.91 | 0.33 | 0.26 | 0.19 | 0.15 | 0.79 | 0.65 | 0.48 | 0.37 | 3.73 | 3.17 |
| Chile | 0.33 | 0.31 | 0.13 | 0.10 | 0.11 | 0.07 | 0.19 | 0.21 | .. | .. | 1.70 | 1.69 |
| Czech Republic | 0.70 | 0.56 | 0.33 | 0.27 | 0.22 | 0.18 | 0.37 | 0.28 | 1.23 | 1.11 | 3.10 | 2.52 |
| Denmark | 3.83 | 3.91 | 2.05 | 2.26 | 1.44 | 1.59 | 1.78 | 1.65 | 6.54 | 6.57 | 6.53 | 6.10 |
| Estonia | 1.10 | 0.73 | 0.23 | 0.23 | 0.14 | 0.15 | 0.87 | 0.50 | 0.91 | 0.87 | 4.52 | 2.58 |
| Finland | 2.84 | 2.49 | 1.05 | 1.02 | 0.87 | 0.85 | 1.79 | 1.47 | 4.09 | 4.41 | 10.31 | 9.14 |
| France | 2.59 | 2.34 | 1.14 | 0.93 | 0.83 | 0.68 | 1.45 | 1.40 | 5.63 | 5.11 | 9.39 | 9.32 |
| Germany | 2.27 | 1.82 | 0.94 | 0.79 | 0.56 | 0.45 | 1.33 | 1.03 | 3.59 | 2.85 | 8.50 | 7.00 |
| Greece | .. | .. | .. | .. | 0.22 | .. | 0.73 | .. | 1.83 | .. | 5.41 | .. |
| Hungary | 1.37 | 1.02 | 0.64 | 0.36 | 0.55 | 0.35 | 0.72 | 0.66 | 4.89 | 3.82 | 8.31 | 7.96 |
| Ireland | 3.94 | .. | 0.96 | .. | 0.78 | .. | 2.98 | .. | 4.85 | .. | 20.37 | .. |
| Israel | 0.85 | 0.78 | 0.19 | 0.18 | 0.17 | 0.16 | 0.66 | 0.60 | 4.24 | 4.52 | 5.53 | 5.32 |
| Italy | 1.88 | 1.78 | 0.43 | 0.41 | 0.32 | 0.31 | 1.45 | 1.36 | 5.12 | 4.85 | 5.98 | 5.95 |
| Japan | 0.63 | 0.62 | 0.28 | 0.27 | 0.22 | 0.21 | 0.35 | 0.35 | .. | .. | .. | .. |
| Korea | 0.77 | 0.64 | 0.43 | 0.33 | 0.41 | 0.31 | 0.34 | 0.31 | .. | .. | .. | .. |
| Luxembourg | 1.34 | 1.20 | 0.55 | 0.56 | 0.50 | 0.51 | 0.79 | 0.64 | 8.04 | 7.73 | 7.63 | 4.23 |
| Mexico | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | .. | .. | .. | .. |
| Netherlands | 2.97 | 2.74 | 1.22 | 1.11 | 0.79 | 0.70 | 1.75 | 1.63 | 4.41 | 4.22 | 7.47 | 7.67 |
| New Zealand | 0.90 | 0.69 | 0.33 | 0.27 | 0.21 | 0.18 | 0.57 | 0.41 | 1.73 | 1.65 | 2.44 | 2.13 |
| Norway | .. | .. | .. | .. | 0.51 | 0.45 | 0.48 | 0.41 | 2.36 | 2.27 | 2.65 | 2.27 |
| Poland | 1.04 | 0.72 | 0.69 | 0.42 | 0.60 | 0.33 | 0.34 | 0.30 | 3.96 | 3.27 | 2.76 | 2.67 |
| Portugal | 2.10 | 1.93 | 0.72 | 0.59 | 0.58 | 0.46 | 1.39 | 1.34 | 3.62 | 3.37 | 6.74 | 5.85 |
| Slovak Republic | 0.94 | 0.79 | 0.33 | 0.30 | 0.23 | 0.22 | 0.61 | 0.50 | 3.83 | 2.70 | 3.36 | 2.73 |
| Slovenia | 1.18 | 1.23 | 0.51 | 0.36 | 0.40 | 0.25 | 0.67 | 0.87 | 2.57 | 2.03 | 3.66 | 3.50 |
| Spain | 4.08 | 3.71 | 0.94 | 0.88 | 0.77 | 0.73 | 3.15 | 2.83 | 12.82 | 11.44 | 13.18 | 12.32 |
| Sweden | 1.90 | 1.72 | 1.11 | 1.09 | 0.80 | 0.80 | 0.80 | 0.63 | 3.70 | 3.75 | 6.37 | 5.35 |
| Switzerland | 1.42 | 1.12 | 0.63 | 0.59 | 0.51 | 0.47 | 0.78 | 0.53 | 1.23 | 1.16 | 2.36 | 2.54 |
| United Kingdom | .. | .. | .. | .. | .. | .. | 0.30 | .. | .. | .. | 4.68 | .. |
| United States | 0.91 | 0.71 | 0.14 | 0.14 | 0.10 | 0.10 | 0.77 | 0.57 | .. | .. | .. | .. |
| OECD | 1.72 | 1.46 | 0.65 | 0.58 | 0.49 | 0.44 | 1.03 | 0.86 | 4.23 | 4.02 | 6.66 | 5.61 |

*Note:* The data shown should not be treated as strictly comparable across countries or through time, since data at the level of individual countries in some cases deviate from standard definitions and methods and certain programmes or programme categories are not always included in the data for participants stocks. See *www.oecd.org/els/emp/employmentoutlookstatisticalannex.htm* which provides a general introductory note about scope and comparability, tables for expenditure and participants in the main programme categories and subcategories, country-specific notes, and access to the online database.

*Source:* For European Union countries and Norway, Eurostat (2013), *Labour Market Policy: 2013 Edition* and detailed underlying data supplied to OECD by Eurostat with certain Secretariat adjustments. For other countries: *OECD Database on Labour Market Programmes*, *http://dx.doi.org/10.1787/data-00312-en* .

StatLink http://dx.doi.org/10.1787/888932853720

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# OECD Employment Outlook 2013

The *OECD Employment Outlook 2013* looks at labour markets in the wake of the crisis. There are still over 48 million people out of work in the OECD area. Getting the balance right between providing income support for these unemployed, while still maintaining strong incentives and support to help them move back into work, is not easy. This year's *Outlook* offers useful lessons from a recent OECD review of benefit systems, public and private employment services, and employment and training programmes in seven member countries. In addition, the *Outlook* outlines how youth and older workers are faring in today's challenging labour markets, and also presents an update of employment protection in OECD countries and selected emerging economies. The report concludes with the key findings of a new international study of involuntary job loss as a result of firms downsizing, moving or going out of business. As usual, the *Outlook* includes an extensive statistical annex on key labour market indicators.

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