Benefits and Wages 2007

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Foreword

This is the fifth issue of a series of publications previously entitled Benefit Systems and Work Incentives *which allows comparisons of the welfare benefits made available to those in and out of work, as well as the taxes they are liable to pay. The series addresses in a systematic way, country by country, the complicated interactions of tax and benefit instruments. It includes analyses of net (*i.e. *after-tax) incomes in and out of work for different family types and labour market situations, presented in a format which facilitates cross-country comparisons.*

This volume provides results for 2005 as well as comparisons with earlier years. All main indicators shown in previous editions are updated accordingly. The main indicators computed from the comparisons of net income in unemployment, part-time and full-time work are: a) the Net Replacement Rate (NRR); and b) the Marginal Effective Tax Rate (METR) faced by individuals entering work or increasing their working hours.

Given the important role that childcare costs play in parents' work decisions, a special section (Chapter 4) provides an overview of the net childcare expenses faced by parents of young children and how these can affect financial work incentives. This volume also provides detailed comparisons of the impact of different tax-benefit instruments on available household incomes, with a particular focus on the degree to which social benefits provide protection from income poverty for those without a job.

The analyses draw on detailed country-by-country information on benefit systems which is available on the Internet at www.oecd.org/els/social/workincentives. *This information has been supplied by the delegates to the OECD's Working Party on Social Policy. The information on income taxes and social security contributions was supplied by the OECD's Centre for Tax Policy and Administration.*

This report is partly the result of a joint project between the OECD and the European Commission. It has been produced with the financial assistance of the European Union. The views expressed herein are those of the OECD Secretariat and can therefore in no way be taken to reflect the official opinion of the European Union. The report has been prepared by Michael Förster, Herwig Immervoll, Dominique Paturot and Mark Pearson.

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Childcare Needs to Help, not Hinder Employment

Finding a suitable balance between work and family life is not an easy task for parents faced with conflicting demands. Public support for good-quality childcare plays a crucial role in helping parents reconcile their work and family commitments. But inconsistent or poorly implemented social and fiscal policies can create additional barriers to employment or raising children – or both. The effectiveness of policies in this area is the subject of a special chapter in this publication (Chapter 4). Adopting the parents' perspective, it analyses two related questions. First, how much does childcare cost? Second, given these costs, can parents of young children afford to work?

The evidence suggests that childcare costs are significant and that high costs do have negative effects on work incentives, fertility behaviour and long-term career prospects, especially for women.

- Childcare costs are high in most OECD countries. Even after deducting all relevant types of government support, typical out-of-pocket expenses for two pre-school children quickly add up to 15% of total family budgets. In some countries, they are much higher. In these "high-cost" countries, expenses for full-time, centre-based care typically consume more than a third of family incomes (Canada, Ireland, New Zealand, Switzerland, the United Kingdom and the United States).
- Childcare support is frequently targeted to lone parents, in recognition of the challenging resource and time constraints they are facing. Yet, in Canada, Ireland, New Zealand and the United States, limited support means that lone parents earning below-average wages would need to spend 30% to 40% of their after-tax income on childcare – a level many of them are simply not able to afford. In one third of the countries, lone parents often see *no* financial gain from low-wage employment (Canada, the Czech Republic, Denmark, France, Iceland, Ireland, Korea, New Zealand, the Slovak Republic and Switzerland). For lone parents with a limited earnings potential, this creates a very significant disincentive to looking for a job.
- If costs are prohibitive, those who want to (or have to) work may decide not to have children in the first place. Alternatively, parents will find it difficult to combine the advantages of employment with high-quality childcare, with adverse consequences for both themselves and their children. The issues are similar in those countries where good-quality childcare is in short supply. In fact, in around one third of the countries analysed (Austria, the Czech Republic, Germany, Greece, Hungary, Italy, Poland and Switzerland), very low enrolment rates in registered care suggest that undersupply of good-quality childcare facilities can be an equally pressing problem as affordability.

- Diverging institutional and policy setups can lead to remarkably similar outcomes for parents. For instance, adverse work incentives can occur as a result of high childcare costs (as in the "high-cost" countries listed above) or because a combination of in-work taxes and out-of-work benefits make employment financially unattractive even before accounting for childcare expenses (Denmark, France, Hungary, Poland and the Slovak Republic).

In addressing barriers to employment and raising children, policy makers need to recognise these links between taxes, social benefits and childcare policies. A successful overall package ensures that parents are given a real choice about their preferred care arrangements without compromising concerns for child development or parents' chances for finding a job and climbing the career ladder.

Of course, quality childcare comes with a price tag attached and it is particularly important to ensure that public funding in this area is cost-effective. For instance, cash transfers to parents should be tied to the use of quality childcare. To be effective, support needs to be structured in such a way as to make employment financially feasible. Yet, targeting to needy parents can limit the strain on government budgets while addressing barriers to work for those who are most likely to respond to stronger work incentives. In a well-functioning market, demand-side subsidies tend to result in improved childcare availability. They may, however, not be effective in lower-income areas where a lack of good-quality childcare may be especially severe. If coverage is insufficient, investing in public provision or carefully-designed subsidies to private providers can help (*e.g.*, in the form of start-up support as advocated in the OECD's *Babies and Bosses* series). Again, these measures require careful policy design and the commitment of significant resources. But evidence shows that investments in this area yield significant private and social returns.

Too many social and economic goals – let alone personal aspirations – are dependent on good-quality affordable childcare being available. All OECD countries intervene in the market at least to some extent in order to help some or even all parents. The analysis in this book shows that some countries need to do much better in designing childcare policies that reconcile work and family life.

John P. Martin

Director, OECD Directorate for Employment,
Labour and Social Affairs

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Executive Summary

Policymakers attempt to accomplish three broad goals in designing benefit systems: support the living standards of low-income families, especially when children are present; encourage work and economic self-sufficiency; and keep costs to the taxpayer low. These goals often are in conflict with one another, so trade-offs have to be made.

This publication analyses the effects of taxes and benefits on incomes of working-age individuals and their families in 29 OECD countries[1] for the year 2005, and it describes changes since 2001. Detailed country-specific information about tax and benefit systems, and a regularly updated selection of key indicators calculated from the OECD Tax-Benefit Models are available on the Internet at *www.oecd.org/els/social/workincentives*. This volume focuses on comparisons across countries, and the sort of questions it answers include: what benefits do unemployed people in different countries receive and how does this compare to the net income they receive while in work? Does the amount of benefit depend on how long someone is unemployed? How much extra does the tax and benefit system give to families with children? How much does a jobless person need to earn before he or she is better off than they would be if they stayed on benefit? Apart from unemployment benefits, what other government policies impact on financial work incentives and what is their net effect?

Two special chapters provide additional analysis. Chapter 4 looks at the effect of childcare costs on family incomes, and how the tax and benefit system is adapted to help meet these costs, so changing the incentives to work for parents. Chapter 5 outlines the trends in recent reforms of benefit systems across OECD countries.

Benefit entitlements, income adequacy and poverty risks

One of the key objectives of benefit policy is to prevent people's living standards from dropping to unacceptably low levels. What level is deemed "unacceptable", of course, varies across countries and different family situations. One way of illustrating countries' views on this issue is to look at the *minimum* benefit level in the social benefit system. This minimum might be provided in the form of special minimum-income benefits, such as social assistance, or it might be embedded in earnings-related unemployment benefit systems in the form of a benefit "floor". It is important to note that – increasingly – not everyone with income below the relevant minimum might be entitled to top-up transfers from the government, even in countries operating such benefits. Eligibility can be subject to "residency tests" (has the person lived in the country for a sufficient amount of time?) or activity tests (is the benefit client actively looking for work and co-operating with other integration measures?).

For those entitled to receive minimum income benefits, the report finds that benefit levels are mostly below commonly-used relative poverty thresholds, sometimes substantially so. That said, real net incomes of social assistance recipients tended to increase between 2001 and 2005: for families with no other incomes, the gap between social-assistance benefits and the poverty threshold has narrowed by about four percentage points on average for families with children, and by one to two percentage points for childless families. This reflects the high priority attached to reducing child poverty in many OECD countries.

For short-term unemployed persons with access to unemployment benefits, existing tax-benefit systems provide very different degrees of income replacement across countries. For single people who previously earned the national average wage, *net* replacement rates (the ratio of income out of work to income in work, after taking account of taxes and benefits) are below 40% in Ireland, Australia, Greece, New Zealand and Turkey, but are 70% and above in Switzerland, Portugal and Luxembourg. In general, net replacement rates tend to be higher at lower earnings levels and higher for families with children. A synthetic index of net replacement rates which takes into account different family types and unemployment spell durations is used by the OECD to describe general trends in out-of-work benefit generosity.[2] On average across the 29 OECD countries, its level was 56% in 2005, 3 percentage points lower than in 2001. The report finds the highest levels of this index (above 70%) in most of the Nordic countries. With values of below 30%, the index of benefit generosity is much lower in countries where benefits for the long-term unemployed are very low or non-existent (the United States, Greece, Turkey and Italy).

Does it pay to work?

While the incomes of people unable to find work are an important determinant of poverty rates, the finding that minimum-income benefit levels are often set below the poverty threshold does, in itself, not necessarily imply that policies to reduce poverty are failing. Governments frequently seek to encourage employment and self-sufficiency with policies attempting to support transitions from unemployment or inactivity into work, especially for the poor.

One way of looking at how tax-benefit systems perform in this respect is to ask how much a person needs to earn in order to raise family income *above* the poverty threshold. The report shows that in a number of countries, even those working full-time at wages close to the national average may struggle to do so if children are present. Examples of such poverty traps can be found in Spain, Switzerland, Canada, Denmark and the United States. In those countries, a person with a non-working spouse and two children would need to earn at least 90% of the average wage to keep family income from falling below 60% of average family income.

High tax burdens for those taking up work are one of the factors that can limit the financial gains from employment. In addition, jobless people entering a new job generally lose entitlement to part or all of their out-of-work benefits; how these benefits are phased out can therefore be crucial for whether or not it pays to work. On average across OECD countries, and taking account of both in-work taxes and the loss of out-of-work benefits, an unemployment benefit recipient returning to a full-time job at average pay loses as much as 66 cents for each euro or dollar earned in the new job. Yet, work incentives are much stronger in a number of countries. In Australia, Greece, Ireland, Japan, Korea and

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New Zealand, unemployed people generally get to keep more than half of their gross earnings when they take up a job. Even in these countries, there are, however, exceptions where work incentives are considerably weaker for certain family situations or at lower earnings levels.

A range of different policy instruments can be employed to ensure strong work incentives. In some countries, benefits for those without work are kept deliberately low so as to provide a strong incentive to find a paid job. However, if this strategy is not successful, there is a risk of income poverty. In other cases, a combination of low tax and contribution burdens for employees (*e.g.* most Anglophone countries, Korea, or the Slovak Republic) or in-work benefits that top up in-work earnings (*e.g.* Finland, France, New Zealand, United Kingdom, United States) are used. If successful, a combination of these policies can keep work incentives intact and at the same time prevent or reduce poverty among the jobless. They are, however, no free lunch. Measures that improve incentives to move from unemployment to work can reduce the incentive to train or to increase hours of work, or (in the case of in-work benefits) reduce the work incentives facing second earners in a family; they also involve additional public spending. Still, the alternatives are not simply "good work incentives and low benefit payments" *versus* "high benefit payments and poor work incentives". The policy choices open to policymakers are much wider than is often recognised.

The impact of childcare

Parents with young children are typically faced with a choice between returning to employment and staying at home to care for the children. While childcare policies can help parents better reconcile care and employment, poorly-designed or implemented measures can in fact make it harder to reconcile work with family life.

This report quantifies the net costs of childcare, accounting for price differences across countries as well as a wide range of childcare support polices. It shows that childcare costs can be very substantial, even after taking account of subsidies, tax breaks and special benefits for users of non-parental childcare. Typical out-of-pocket expenses for two children in a full-time, centre-based care amount to around 12 to 14% of family net income on average across the OECD. At up to 50% of family net incomes, centre-based care is most expensive in Switzerland and the Anglophone countries (except Australia), and lowest in eastern and northern European countries (less than 10%).

The financial reward of full-time employment is reduced considerably once childcare costs are accounted for: low-wage second earners in about half the countries see more than two-thirds of their earnings consumed by childcare fees, income taxes and reduced benefits. A related finding is that, on average, relative income gains for lone parents and second earners are not too different when childcare costs are taken into account. This suggests that most countries target childcare support towards (low-wage) lone parents, as lone parents face particularly poor work incentives in most countries when childcare costs are *not* taken into account. Yet, targeting tends to be less important in countries where childcare is least expensive. Policies to make quality childcare affordable for all parents require a substantial commitment of resources, both financial and non financial. But, if properly designed, the money is likely to be well-spent, with better career/family choices

for parents and positive effects on maternal employment and child well-being, especially once the child is older than 1-2 years.

Benefit reforms: most recent trends

In the past, most countries focused their benefit system reforms on changes of eligibility conditions, tightening or restricting access to programmes as well as possibly reducing benefit durations. Examples of reductions of benefit rates and amounts were rare. This has changed in recent years. In a number of countries, benefit rates have been adjusted downwards, sometimes considerably. The package of measures in Germany summarised as the "Hartz reforms" restricted eligibility to payments but also reduced benefit rates, especially for the long-term unemployed. The Slovak Republic (unemployment benefit and social assistance) and Switzerland (social assistance) are other examples of countries where benefit levels have been reduced. Correspondingly, falls in net replacement rates for many family types are recorded in about one third of OECD countries, in some of them by significant amounts.

This reduction in benefit levels relative to income is a striking recent development, and is one that has passed somewhat unnoticed. It is perhaps the first time in the recent past that such a pattern of benefit cuts has been observed, as previous reductions in benefit levels have been isolated in just a handful of countries.

At the same time, a trend from the past which continues in recent years is the extension or establishment of employment-conditional benefit programmes. Measures ensuring a more gradual phase-out of existing benefits when taking up work can pursue similar objectives, namely to make work pay. Experiences with these types of in-work benefits are mixed. Evidence shows that they can be an effective policy tool. By providing extra resources to low-wage workers, they improve work incentives, redistribute resources to low-income groups and tend to reduce in-work poverty. But the success of in-work benefits very much depends on the resources devoted to them and their particular design (for instance, while facilitating a limited degree of work attachment for recipients of out-of-work benefits, a gradual phase-out of benefits can actually lock people into benefit dependency). Implementation of such programmes also presents considerable challenges – often they are based on outdated income information so are not responsive to changes in current behaviour; they have proven vulnerable to fraud and misuse; administrative costs have sometimes been high and errors in payment substantial. Where in-work benefits have been most successful, those problems have been overcome. If other countries want to share in this success, they, too, must get the administration right.

Notes

1. Mexico does not have an extensive system of working-age benefits and so is not included in this analysis.
2. This indicator takes into account housing benefits but not childcare costs.

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Chapter 1

Elements of Tax-Benefit Systems

Introduction

This chapter provides an overview of the institutional features of tax-benefit systems including the eligibility and entitlement rules governing different types of social benefits, their tax treatment and the way in which part-time or casual earnings influence benefit amounts. The information presented here sheds light on the structure of benefit systems and provides a background for understanding the quantitative effects of taxes and benefits on household incomes discussed in later chapters. More detailed descriptions on countries' tax-benefit systems can be found in country chapters available at *www.oecd.org/els/social/workincentives*.

The first section compares eligibility and entitlement rules across countries and types of benefit. As in the remainder of this volume, the focus is on cash benefits available to able-bodied individuals of working age and their families. Section 2 examines the tax treatment of benefits. Section 3 discusses how interactions between different types of benefit and taxes can reinforce or weaken the policy effectiveness of individual instruments.

1. Main features of social transfers

This section presents a more detailed discussion of the policy rules governing the different types of social benefit. All data refer to 2005 unless otherwise noted. The distinction between different types of benefit is often not clear-cut, however. Different benefits may have similar purposes while one particular type of benefit can be designed to address a number of different contingencies. Although this section proposes criteria for distinguishing between different programmes, it is clear that no particular categorisation will be ideal for all possible uses of cross-country comparisons.

a) Unemployment insurance

Table 1.1 provides the various features that are considered in unemployment insurance (UI) benefit eligibility and calculations. In most countries, the conditions of eligibility depend on the claimant's employment record or/and period of insured work. The contributions to unemployment insurance are compulsory, except in Demark, Finland and Sweden, where they are voluntary and paid to an insurance fund (*e.g. Unemployment Insurance Society* in Sweden). Required work/contribution periods for benefit claimants are mostly from six months (*e.g.* France, Japan, Korea, and Luxembourg) to 12 months (*e.g.* Austria, Germany, Switzerland). Iceland has the shortest work/contribution period of ten weeks, and the United Kingdom and the Slovak Republic have the longest ones with respectively two and three years of contributions required. For an unemployed person with a long employment history (22 years is assumed in the table), the maximum benefit duration is longest in Denmark, Iceland, Norway, Portugal and Spain and shortest (around six months) in the Czech Republic, the Slovak Republic, the United Kingdom and the United States.

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Table 1.1. **Unemployment insurance benefits, 2005**

For a 40-year-old single worker without children, with a 22-year employment record[1]

	Employment (E) and contribution (C) conditions	Insurance is voluntary (V) or compulsory (C) for employees	Waiting period (days)	Maximum duration (months)	Initial payment rate (% of earnings base)	Earnings base[2]	Minimum benefit		Maximum benefit		Permitted employment and disregards	Additions for dependent family members
							National currency	% of AW	National currency	% of AW		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Australia	–	–	–	–	–	–	–	–	–	–	–	–
Austria	E + C: one year in two	C (above an earnings limit)	0	9	55	Net	–	–	14 049	40	No reduction up to EUR 3 881.52, total loss above. Exception: benefit reduced when < 27 days/ month and net earning less than benefit	Each dependant: EUR 354
Belgium	E + C: 468 days in 27 months	C	0	Unlimited	60 (50 after one year)	Gross	8 842	24	12 310	34	Maximum: limit of EUR 3 507 for artistic employment	If dependants, minimum benefit is increased to EUR 10 527
Canada[3]	E + C: 665 hours in one year	C	14	9	55	Gross	–	–	21 476	54	Up to 25% of benefits or CAD 2 600, whichever is higher	Family supplements depend on income plus age and number of children
Czech Republic	E + C: 12 months in three years	C	–	6	50 (45 after three months)	Net	–	–	129 000	59	Half of the minimum wage in a month is allowed without loosing the entitlement to unemployment benefits	UI maximum benefit level increases depending on number and age of children
Denmark	E: 52 weeks in three years, C: membership fee	V	0	48	90	Gross less 8% soc. sec. contributions	136 764	43	170 040	53	Wages reduce benefit by same amount	–

Table 1.1. **Unemployment insurance benefits, 2005** *(cont.)*

For a 40-year-old single worker without children, with a 22-year employment record[1]

	Employment (E) and contribution (C) conditions	Insurance is voluntary (V) or compulsory (C) for employees	Waiting period (days)	Maximum duration (months)	Initial payment rate (% of earnings base)	Earnings base[2]	Minimum benefit		Maximum benefit		Permitted employment and disregards	Additions for dependent family members
							National currency	% of AW	National currency	% of AW		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Finland	E: 43 weeks in 28 months, C: ten months	V	7	23	Basic benefit (18% of AW) plus up to 45% of earnings exceeding basic benefit	Gross (excluding additional holiday pay) less soc. security contributions.	–	–	None		Working hours < 75% of full time. Benefit reduced by 50% of gross income. Benefit plus income < 90% of reference earnings	Supplements: EUR 1 135, 1 667, 2 152 for one, two and three or more children respectively
France	C: Six months in 22	C	8	23	57-75	Gross	9 129	30	68 219	224	Income < 70% of reference earnings, hours worked/month < 136 and duration < 18 months. Benefit reduced depending on income ratio to reference earnings	–
Germany	E: 12 months, C: 12 months in three years	C	0	12	60	Net	–	–	37 440	90	Benefit is reduced by net earnings exceeding EUR 165/ month. Total loss if working more than 15 hours/week	Rate increases by 7 percentage points if children
Greece	E + C: 125 days in 14 months or 200 days in two years	C	6	12	40-50	Gross	3 735	18	3 951	19	Benefit withdrawn if earnings. Exceptions exist for casual and part time work	Benefit increased by 10% for each

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Table 1.1. **Unemployment insurance benefits, 2005** *(cont.)*

For a 40-year-old single worker without children, with a 22-year employment record[1]

	Employment (E) and contribution (C) conditions	Insurance is voluntary (V) or compulsory (C) for employees	Waiting period (days)	Maximum duration (months)	Initial payment rate (% of earnings base)	Earnings base[2]	Minimum benefit		Maximum benefit		Permitted employment and disregards	Additions for dependent family members
							National currency	% of AW	National currency	% of AW		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Hungary	E + C: 200 days in four years	C	0	9	65	Gross average earnings in previous four quarters	266 760	15	533 520	29	For short term (< 90 days) employment benefit is suspended. For "employment booklet" programme the benefit is reduced by amount earned	–
Iceland	E + C: ten weeks	C	0	60	Fixed amount (37% of AW)	In proportion to the number of hours worked in insured employment in the previous 12 months	–	–	–	–	For occasional employment < two days, benefit is reduced proportionally	ISK 43 940 per child
Ireland[4]	C: 39 weeks in one year (or 26 "reckonable" contributions in two years); 52 weeks contributions paid since starting work	C	3	15	Fixed amount (27% of AW)	–	–	–	–	–	Benefit is not paid for any day or partial day of employment. Earnings are not assessed	Supplements of EUR 874 per child, EUR 5 132 per adult
Italy[5]	C: 52 weeks in two years	C	7	7	50 (40 after six months)	Average gross earnings in previous three months	–	–	11 821	52	No benefits if receiving earnings from employment except for CIG scheme	–

Table 1.1. **Unemployment insurance benefits, 2005** *(cont.)*

For a 40-year-old single worker without children, with a 22-year employment record[1]

	Employment (E) and contribution (C) conditions	Insurance is voluntary (V) or compulsory (C) for employees	Waiting period (days)	Maximum duration (months)	Initial payment rate (% of earnings base)	Earnings base[2]	Minimum benefit		Maximum benefit		Permitted employment and disregards	Additions for dependent family members
							National currency	% of AW	National currency	% of AW		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Japan	E + C: six months in one year (at least 14 days each month)	C	7	10	50-80	Gross earnings excluding bonuses paid during last six months	–	–	2 631 600	53	No benefits if employed	–
Korea	E + C: six months in 18	C	14	7	50	Gross earnings paid in previous three months	6 717 168	23	12 600 000	44	If income divided by number of benefit days entitled is over 60% of UI benefit then excess deducted	–
Luxembourg	E + C: 26 weeks in one year	C	0	12	80	Gross	–	–	39 603	94	Reduced if earnings > 10% of maximum benefit due	Rate increases by 5 percentage points if children
Netherlands	E: 26 weeks in 39, C: 52 days in four or five years	C	0	18	70	Gross	11 473	30	41 340	113	If < five hours/ week, benefit reduced by 70% of gross earnings. If > five hours/ week, proportional reduction	Supplementary benefits for low-income households to bring income up to a minimum guaranteed level
New Zealand	–	–	–	–	–	–	–	–	–	–	–	–
Norway	E + C: earnings above a minimum level[6]	C	5	24	62	Gross	60 699	16	364 194	96	–	NOK 4 420 per child

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Table 1.1. **Unemployment insurance benefits, 2005** *(cont.)*

For a 40-year-old single worker without children, with a 22-year employment record[1]

	Employment (E) and contribution (C) conditions	Insurance is voluntary (V) or compulsory (C) for employees	Waiting period (days)	Maximum duration (months)	Initial payment rate (% of earnings base)	Earnings base[2]	Minimum benefit		Maximum benefit		Permitted employment and disregards	Additions for dependent family members
							National currency	% of AW	National currency	% of AW		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Poland	E + C: 365 days in 18 months and earnings > 1/2 minimum wage	C	7	18	Fixed amount (26% of AW)[7]	–	–	–	–	–	Gross income disregard of up to PLN 5 094 (half the minimum pay)	–
Portugal	E + C: 270 days in 12 months	C	0	24	65	Gross	4 496	34	13 489	101	If income < UI benefit and hours 20 < 75%, UI benefit = (UI benefit – income) * 1.35	–
Slovak Republic	E + C: three years in four years	C	0	6	50	Gross	–	–	203 220	94	–	–
Spain	C: 360 days in six years	C	0	24	70 (60 after six months)	Gross	4 510	22	9 866	48	Benefits are reduced in proportion to hours worked	Increased minima and maxima if children
Sweden	E: 6 months in last year, C: 12 months	V	5	14	80	Gross	83 200	26	181 800	57	Benefits are reduced in proportion to days worked.	–
Switzerland	E + C: 12 months in two years	C	5	18	70	Gross	–	–	74 760	104	"Compensation payment for intermediate earnings": benefits are equal to 70% of the difference between insured earnings and current earnings	Rate increases by 10 percentage points if children or low income

Table 1.1. **Unemployment insurance benefits, 2005** *(cont.)*

For a 40-year-old single worker without children, with a 22-year employment record[1]

	Employment (E) and contribution (C) conditions	Insurance is voluntary (V) or compulsory (C) for employees	Waiting period (days)	Maximum duration (months)	Initial payment rate (% of earnings base)	Earnings base[2]	Minimum benefit		Maximum benefit		Permitted employment and disregards	Additions for dependent family members
							National currency	% of AW	National currency	% of AW		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Turkey	E: 600 days in three years, C: 120 days continuously	C	0	10	50	Net	2 088	13	4 177	27	No benefits if employed	–
United Kingdom	C: two years	C	3	6	Fixed amount (10% of AW)	–	–	–	–	–	Income > GBP 260 (520 for couples) reduces benefit by same amount	–
United States	E: 20 weeks (plus minimum earnings requirement)	C	0	6	53	Gross	4 212	14	18 824	61	Earnings smaller than gross benefit are deducted at a 50% rate; 100% reduction with that part of earnings which exceeds gross benefit	USD 312 for each dependant

1. All benefit amounts are shown on an annualised basis. "–" indicates that no information is available or not applicable.
2. Gross = Gross employment income; Net = Gross minus income taxes minus SSC; SSC = (Employee) Social security contributions.
3. The duration of Employment Insurance (EI) payments depends on the unemployment rate in the relevant EI region. The 38 week duration shown here relates to an unemployment rate of 6.6% in Ontario.
4. Where weekly earnings while in employment were below certain amounts, reduced rates of payment are made. If dependent adult is employed, supplement is reduced or suppressed depending on income level.
5. For employees with a temporary reduction of working hours there is also the CIG scheme which pays benefits of 80% of average gross earnings for non-worked hours.
6. At least 24% of AW during the preceding calendar year or 16% of AW averaged over three years.
7. The basic benefit amount is adjusted with the length of the employment record: 80% for under five years, 100% for 5-20 years and 120% for over 20 years.

Source: OECD Tax-Benefit Models.

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The calculation of UI benefits is earnings-related in most countries. Exceptions are Iceland, Ireland, Poland and the United Kingdom where benefit amounts are flat rate and vary from 10 to 37% of the average wage. As a result, only a small part of higher-income employees' earnings is replaced by UI benefits in these countries. Finland is the only country where the benefit amount is a combination of a basic benefit and a percentage of previous earnings in excess of the basic benefit.

Where an earnings-related benefit scheme is applied, initial replacement rates vary across countries: from 50% (*e.g.* the Czech Republic, Italy, Korea and Turkey) to 80-90% (*e.g.* Denmark, Luxembourg and Sweden). However, these differences do not necessarily reflect differences in *net* replacement income: some countries calculate benefits on the basis of gross earnings, others on the basis of net earnings; yet others use pre-tax but post-social security contributions earnings as a base (*e.g.* Denmark, Finland). For example, Denmark apparently has the highest replacement rate as unemployment benefits are of 90% of previous gross earnings. Nevertheless, 8% of social security contributions are deducted from previous gross earnings before calculating UI benefits.

When comparing replacement rates across countries, the fact that the unemployment insurance benefits are taxable or not must also be taken into account (see Table 1.11). For instance, in Portugal, where unemployment insurance claimants receive 65% of their previous gross earnings, the benefits are not taxable. In the Netherlands, on the contrary, the unemployment insurance benefit claimants receive 70% of their previous gross earnings but pay income tax and social security contributions.

In countries where benefits are determined in relation to previous in-work earnings, the relevant percentages (Column 5) only apply within given earnings thresholds and ceilings so that replacement rates for the highest-earning employees are lower. The earnings intervals where benefits are proportional to previous wages vary greatly across countries. In Greece, benefit amounts vary only within a narrow range so that the benefit, while nominally earnings-related, largely operates like a flat-rate benefit. Maximum UI benefits in France can be as high as more than twice average earnings. There is no upper limit for earnings related benefits in Finland.

Only in a few countries are UI benefits lost as soon as the person takes up paid work (Japan, Turkey); in all others some work is permitted (Column 11). In some countries unemployment insurance benefit is reduced by days or hours of work (*e.g.* Ireland, Spain, and Sweden). In other countries, the transition from unemployment to work comes along with earnings or working-hour disregards. In other words, the unemployment insurance claimants keep all or a part of the unemployment insurance benefit amount depending on their level of earnings from work (*e.g.* Canada, the Czech Republic, Luxembourg and Switzerland) or/and their working hours (*e.g.* Finland, France, Germany and the Netherlands). Such policies have a major impact on the various indicators. (See Chapter 3 for further analysis on this indicator of transition.)

b) Unemployment assistance

Table 1.2 gives a comprehensive description of unemployment assistance (UA) benefits. UA benefits exist only in a minority of OECD countries and, unlike UI benefits, are generally means-tested. In Austria, Germany and Spain, unemployment assistance benefits are paid after exhaustion of unemployment insurance benefits. In France, the transition is not systematic as the unemployed person is required to have been employed

Table 1.2. **Unemployment assistance benefits, 2005**

For a 40-year-old single worker without children, with a 22-year employment record[1]

	Employment record in months[2]	Waiting period (days)	Duration (months)	Payment rate	Maximum benefit		Tests on		Permitted employment and disregards	Additions for dependent family members
					National currency	% of AW	Assets	Income		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]		[8]	[9]
Australia	–	7	No limit	Fixed amount	10 382	20	Yes	Family	Disregard of AUD 1 612, 50% withdrawal up to AUD 3 692, 70% above. Couple: no UA for higher earner once income above AUD 15 600, spouse's UA reduced by 70% for earnings above this amount.	Parenting payment for dependent children (generally replaces UA). Partner allowance.
Austria	UI	–	No limit	92% of basic UI benefit[3]	12 925	37	Yes	Family	No UA if earnings above EUR 3 882 (exception if time worked is less than 27 days and earnings less than maximum UI, then UA is reduced). UA reduced if spouse's earnings above EUR 5 364. Limit increased by EUR 2 682 for each child.	Each dependant: EUR 354.
Finland	–	5	No limit	Fixed amount	5 996	18	–	Family	Limits can be suppressed under certain conditions. Spouse's income excluded if less than EUR 6 432. Disregards of EUR 10 176 for couple and lone-parent or EUR 3 036 for single, addition of EUR 1 272 for each dependent child. UA reduced (by 75% for a single, 50% for a couple) for gross earnings exceeding disregard; also reduced for earnings from part-time work.	EUR 1 135, 1 667 and 2 152 for one, two and three+ children respectively.
France	UI and 60 in last 120	–	Six months (renewable)	Fixed amount	5 040	17	–	Family	Disregard for earnings less than EUR 6 720 then 1/1 reduction up to EUR 11 760; for couple limits are EUR 13 440 and 18 480.	Some for older workers depending on age and employment record.
Germany[4]	UI	–	No limit	Fixed amount	4 140	10	Yes	Family	15% of earnings up to EUR 4 800 are diregarded, 30% of earnings between EUR 4 800 and EUR 10 800 and 15% of earnings between EUR 10 800 and EUR 18 000.	Additions for each child depending on age.

Table 1.2. **Unemployment assistance benefits, 2005** *(cont.)*

For a 40-year-old single worker without children, with a 22-year employment record[1]

	Employment record in months[2]	Waiting period (days)	Duration (months)	Payment rate	Maximum benefit		Tests on		Permitted employment and disregards	Additions for dependent family members
					National currency	% of AW	Assets	Income		
	[1]	[2]	[3]	[4]	[5]	[6]	[7]		[8]	[9]
Greece	UI or two	–	12	Fixed amount	2 400	12	–	Family	Income less than EUR 5 000 with additional EUR 587 for each minor child. UA is zero if there are any earnings.	–
Ireland	–	3	No limit	Fixed amount	7 738	27	Yes	Family	If working less than three days/ week UA is reduced by 60% of average net weekly earnings.	EUR 5 080 per adult, EUR 874 per child.
New Zealand	–	7-70	No limit	Fixed amount	10 376	25	–	Family	70% reduction in net benefit If gross income is less than NZD 4 160.	Rates depend on family type.
Portugal	UI or 6 in last 12[5]	–	12 (after UI) or 24	Fixed amount	3 597	27	–	Family	Income less than EUR 3 597/ person. UA is zero if there are any earnings.	EUR 899 if dependants.
Spain	UI	–	18	Fixed amount	4 510	22	–	Family	Income less than EUR 4 228/ person. No disregards.	Older workers with dependants: vary from EUR 2 255 to a maximum of EUR 3 749 for six months.
Sweden	Six or recent graduate	5	14	Fixed amount	83 200	26	–	Individual	Benefit not paid for days worked. Proportionally reduced in part-time work case.	–
United Kingdom	–	–	No limit	Fixed amount	2 922	10	Yes	Family	Earnings disregards are GBP 260, 520 and 1 040 for single persons, couples and special groups (*e.g.* lone parents) respectively. Other forms of income reduce benefits on a 1/1 basis.	GBP 1 661 for spouse, plus various premiums.

1. All benefit amounts are shown on an annualised basis. "–" indicates that no information is available or not applicable.
2. UI = after exhausting UI benefits.
3. Rate can be increased to 95% for low UI levels.
4. As of 1st January 2005, unemployment assistance and social assistance for persons who are able to work were combined into one benefit, the basic jobseekers allowance (Unemployment Benefit II). Available for persons who are able to work and whose income is not sufficient to secure their own and their family's livelihood.
5. There is no employment condition for a first-time job seeker with dependants.

Source: OECD Tax-Benefit Models.

previously for 60 months. In Greece and Portugal, unemployment assistance benefits either follows unemployment insurance benefit periods or are paid to unemployed people whose employment record is too short to be eligible for unemployment insurance benefits. In general, the conditions of eligibility for unemployment assistance benefit require a shorter employment record than for unemployment insurance benefits or no employment record at all (*e.g.* Finland, Ireland and the United Kingdom). However, in Sweden where the employment record requirement is the same as for unemployment insurance benefits, unemployment assistance benefits are paid to unemployed people who are not insured or whose period of contributions to unemployment insurance is not long enough to be eligible for unemployment insurance benefits.

UA benefits are mostly flat-rate payments, with basic amounts which vary from 10 (United Kingdom) to 37% (Austria) of the average worker wage. As in the case of UI benefits, these may or may not be taxed (see Table 1.2). Unemployment assistance basic amounts are generally supplemented with additional payments for children or a dependent spouse (*e.g.* Austria, Portugal, and the United Kingdom). In most countries, the benefits are paid as long as claimants' individual or family income meets the income-test criteria. In Greece, Portugal, Spain and Sweden, however, the duration of unemployment assistance payment is limited.

Australia and New Zealand differ from the other countries to the extent that no UI scheme exists and, hence, unemployment assistance is the only source of replacement income for unemployed people. In Australia, for example, UA benefits are paid as flat-rate amounts that do not depend on any employment record or any contributions. However, the claimants must look for work or fulfil some requirements when they are unable to support themselves through paid work. In fact, there are a number of payments such as Newstart Allowance, Youth allowance and Parenting Payment, depending on the claimants' age and family situation.

Several countries allow UA benefit receipt for unemployed people with small amounts of employment incomes. Once these exceed specific limits (Column 8), benefits are either stopped completely (*e.g.* in Austria) or reduced. In the latter case, the withdrawal rates range from 50% (Finland) to 100% (France and the United Kingdom). In most cases, incomes from sources other than employment also reduce benefit entitlements. With the exception of Sweden, UA benefit levels are also affected by the income of other family members.

c) Social assistance

The main features and regulations of social assistance are described in Table 1.3. Social assistance (SA) is the financial support of last resort for individuals without sufficient resources. SA amounts are usually set to reflect basic needs in a country and the scheme acts as one of the main instruments of anti-poverty programmes. Therefore, SA is a non-contributory income support scheme, usually with flat-rate amounts and eligibility does not depend on employment record or previous earnings.

In the first column, "national rates" indicates that rates are uniform throughout the country (*e.g.* Belgium and the Netherlands) and "national guidelines" that national rates are recommended without being strictly enforced (in which case these guidelines are adopted for the purpose of the comparisons which appear subsequently in this study) (*e.g.* Hungary, Sweden). Where there is regional variation in payment rates, two approaches may be followed when calculating benefit amounts as in the rest of this volume: the

Table 1.3. **Social assistance benefits,**[1] **2005**

	Determination of rates	Maximum amounts (in % of AW)						Means-test			Topping-up of UB is possible
			Head of household	Spouse/partner	Per child		Other	Disregard	Benefit withdrawal	Benefits excluded	
	[1]		[2]	[3]	[4]		[5]	[6]	[7]	[8]	[9]
Australia[2]	–		–	–		–	–	–	–	–	–
Austria	National average		15	7		4	Rent –	None	100%	Family	Yes
Belgium	National rates		20	7	Depends on age and number of children	4-9	–	EUR 310 (250) net income per year with (without) children	100%	Family	Rare
Canada (Ontario)[3]	Regionally determined		16	12	Depends on age and number of children	4-5	Rent –	Depends on family size	75%	Increases in the National Child Benefit Supplement	–
Czech Republic[4]	National rates		23	16	Depends on age and number of children	13-17	Dependant 16	–	–	None	–
Denmark	National rates	Age > 25	32	32	1st child	10	Rent –	DKK 25 896 if part of employment scheme	100%	–	No
		Age < 25	21								
Finland	National rates		14	10	Depends on age and number of children	7-10	Rent, health care, work related expenses –	20% of net earnings (maximum EUR 1 800)	100%	None	Yes
France[5]	National rates	Age > 25	17	8	Of a lone parent	8	–	Upon taking up employment: 100% of earnings for six months, then 50% for nine months	100%	Specific family and housing benefits	–
					1st child of a couple	5					
					2nd child of a couple	5					
					Additional child	7					
Germany[6]	–		–	–		–	–		–	–	–
Greece	–		–	–		–	–	–	–	–	–

Table 1.3. **Social assistance benefits,[1] 2005** *(cont.)*

	Determination of rates	Maximum amounts (in % of AW)						Means-test			Topping-up of UB is possible
			Head of household	Spouse/partner	Per child	Other		Disregard	Benefit withdrawal	Benefits excluded	
	[1]		[2]	[3]	[4]	[5]		[6]	[7]	[8]	[9]
Hungary	National guidelines	If unemployed and benefits exhausted. Age > 18	11	11		–	–	None	100%	None	No
Iceland (Reykjavik)	Regionally determined	Age > 17	34	21		–	Unemployed age 18-24 living at home 17	None	100%	Child support, family and rent benefits	–
							Funeral costs, dental bills, etc. –				
Ireland	National guidelines		27	18		3	Adult dependant. 18	–	100%	Family	Rare
							Rent/mortgage interest payments –				
Italy	–		–	–		–	–		–	–	–
Japan[4] (Osaka/Tokyo)	Regionally determined	Depends on age of family members	20	11	Depends on age and number of children	6	Medical, long-term care, occupational, education, maternity and funeral aid –	Net earnings of at least JPY 100 080 (up to JPY 398 280 for higher earnings)	100%	–	Yes
							Housing costs. 3				
Korea	National rates		14	10	Depends on number of children	8-9	Medical care, educational, childbirth, funeral, housing costs and self-support benefits –	30% of income earned under specific programmes	100%	Lone parent	No
Luxembourg	National rates	Age > 25	30	15		3	Supplementary adult. Rent allowance 9	30% of payment rate	100%	Family	–
Netherlands	National rates	Age > 22	25	11		–	Supplement for lone parent 7	None	100%	Family and housing	–
New Zealand[2]	–		–	–		–	–	–	–	–	–
Norway (Trondheim)	Regionally determined		13	8	Depends on age	2-6	Housing benefit depending on family situation 13-29	None	100%	Family	–

Table 1.3. **Social assistance benefits,[1] 2005** *(cont.)*

	Determination of rates	Maximum amounts (in % of AW)						Means-test			Topping-up of UB is possible
			Head of household	Spouse/partner	Per child	Other		Disregard	Benefit withdrawal	Benefits excluded	
	[1]		[2]	[3]	[4]	[5]		[6]	[7]	[8]	[9]
						Supplement for heating expenses and family benefit supplement in December	–				
Poland	National rates, social worker discretion for periodic assistance	Permanent benefit	19	–		–	Periodic assistance; temporary benefit depending on family situation	–	None	100%	–	Rare
Portugal	National rates	Age > 17	15	15		7	Adult	10	Upon taking up employment: 50% of earnings for one year	100%	Family and housing	–
Slovak Republic	National rates		8	6	1st child only, plus addition if more than four children	5-12	Health care, housing, protective and activation allowances	–	25% of net income	100%	Family	Yes
Spain (Madrid)	Regionally determined	Age > 24	23	4		4	4th dependent person in household	3	None	100%	Family	Rare
Sweden[4]	National guidelines. Social worker discretion for supplements		13	8	Depends on age and number of children	6-10	Medical costs, transport, childcare, etc.	–	None	100%	None	Rare
							Housing costs.					
Switzerland (Zurich)	National guidelines, social worker discretion for supplements		16	9		5	Supplement from 3rd person aged > 16	5	–	100%	–	–
					1st child of lone parent	9	Housing and basic medical costs, childcare, etc.					

Table 1.3. **Social assistance benefits,[1] 2005** *(cont.)*

	Determination of rates	Maximum amounts (in % of AW)						Means-test			Topping-up of UB is possible
			Head of household	Spouse/partner	Per child	Other		Disregard	Benefit withdrawal	Benefits excluded	
	[1]		[2]	[3]	[4]	[5]		[6]	[7]	[8]	[9]
Turkey	–		–	–	–		–		–	–	–
United Kingdom	National rates, personal amount plus family premium	Age > 24 or lone parent	10	6		Family premium	3	GBP 260/520/ 1 040 for a single person/ couple/lone parent	100%	Housing, Council Tax and Family	Yes
		Single person aged 18-24	8								
United States[7]	National rates		5	5	4	Rent	–	Occasional income up to USD 120	100%	Earned Income Tax Credit	–

1. All amounts are shown on an annualised basis. "–" indicates that no information is available or not applicable.
2. Low-income individuals actively looking for work typically receive the means-tested unemployment assistance benefit described in this Table (unlimited duration and not subject to employment record conditions). All "Social Assistance" amounts shown for Australia and New Zealand in this publication therefore relate to means-tested unemployment benefits. In Australia, another type of benefit (Special Benefit) can be available to people in severe financial hardship, who have no other means of support and for whom no other benefit is available. Special Benefit is not considered in the results reported here.
3. Basic allowance plus shelter allowance.
4. The benefit is made up of two parts: an individual amount depending on the age of the child (and sometimes the adult) concerned; and a household amount that depends on the size of the household.
5. The benefit is also available for people under 25 years old with dependent children.
6. As of 1st January 2005, unemployment assistance and social assistance for persons who are able to work were combined into one benefit, the basic jobseekers allowance (Unemployment Benefit II). Persons who are unable to work receive Social Allowance benefits of which basic elements are the same as UBII.
7. Amounts shown for food stamps only. See Table 1.7 for information on the Temporary Assistance for Needy Families (TANF) programme.

Source: OECD Tax-Benefit Models.

national average is known and used ("national average") (*e.g.* Austria), or the study relates to one particular representative region ("regionally determined") (*e.g.* Norway).

Maximum benefit amounts for a single person (Column 2) vary between 5% of average worker wage in the United States and 34% in Iceland. Claimants with dependents usually receive additional payments for dependent spouses and children depending on their number and age. In some countries, increases for housing, health or education costs are also paid to the claimants (*e.g.* Finland, Japan, and the Slovak Republic). Comparing the amounts paid for the first person to those granted for additional household members is therefore particularly interesting because they imply certain scales of relative financial needs of different household members. For a second adult (typically a partner or spouse) in the household, additions to the maximum benefit amount range from zero and 17% (Poland and Spain) to 100% (Denmark, Hungary and Portugal) of the respective single rates, while for children, the range is zero and 10% (Hungary, Iceland, Luxembourg, the Netherlands and Poland) to more than 70% (the Czech Republic, Finland, Sweden and the United States).

However, the relative generosity of countries' SA schemes cannot be assessed without considering the interaction of SA with other benefits and earnings from work. In most countries, SA benefits can complement (or "top-up") other incomes, whatever their source (column 9). However, in Denmark, low income is not a sufficient reason for eligibility. Instead, SA is conditional on the occurrence of a "social event" (unemployment, sickness, divorce, etc.). In several countries, recipients of unemployment benefits are explicitly excluded from receiving SA.

SA is a means-tested benefit and the definition the "means" varies across countries. While in most countries family benefits are excluded from the SA income-test, in a few countries (France, Iceland, the Netherlands, Portugal and the United Kingdom) housing benefits are also excluded. In the latter countries, SA schemes do not compensate for housing costs through additional increases.

In most of the other countries, SA schemes pay such special rent allowances to support housing costs (Austria, Canada, Denmark, Finland, Ireland, Japan, Korea, Luxembourg, Norway, the Slovak Republic, Sweden, Switzerland and the United States) (column 5). For instance, in Canada, the rates of the provincial SA programme "Ontario Works" consist of a basic allowance and a shelter allowance. In Austria, SA claimants in Vienna benefit from a special housing assistance, "Mietbeihilfe", to offset their housing costs.

The regular housing benefits, payment of which does not depend on the claimants' entitlement to SA, do not exist in some countries (*e.g.* Canada, Japan, Korea, Luxembourg and the Slovak Republic). In countries where these benefits exist and reduce the SA amounts, this reduction is counteracted by the addition of the special housing allowances to SA schemes in some countries (*e.g.* Austria, Finland, Sweden), but not in others (*e.g.* the Czech Republic, Hungary and Poland). The interaction between the two types of housing benefits, the regular and the SA-related, is analysed in another section of the chapter.

The two types of housing benefits also differ from each other in their means-tests, in terms of disregards, reduction rates and income-limits. The regular housing benefits are often paid to low-income households which have lost their SA entitlement while the special housing benefit payments stop with SA exhaustion.

Some countries carry out incentive measures to encourage SA claimants to take up an employment through earnings' disregards (*e.g.* Finland, France, Japan, and Portugal). As a result, earnings only reduce SA amounts once they exceed the disregard amount (Column 6). The rates at which SA benefits are reduced are mostly 100%, except in Canada where the withdrawal rate is 75%.

Some countries require a minimum age to be eligible for SA. In France and Luxembourg, for instance, the minimum age is 25 years, the highest minimum age criterion across OECD countries.

d) Benefits available to the young unemployed

Table 1.4 shows the benefits that are available for the young employed people aged 20 years old without any employment record. In eleven countries, unemployment benefits (UI or UA) are payable. In Finland, Germany, Ireland and Sweden, young unemployed people receive the full amount of regular UA since the benefit amounts and rules are the same regardless of age. In Denmark, young unemployed people who have joined the voluntary unemployment insurance immediately after finishing their education benefit from a UI amount that can be as high as the minimum UI benefit received by unemployed people with an employment record.

In other countries, reduced unemployment benefits are payable (Australia, Belgium, Greece, Luxembourg, New Zealand and the United Kingdom). For instance, in Belgium, the *allocation d'attente* amounts to 50% of regular minimum UI benefits. Support available to young people without unemployment record reaches between 80% and 85% of the UA level for the 40-year-old unemployed (see Table 1.2) in Australia, New Zealand and the United Kingdom. In the latter countries, UA amounts, which are flat rates, depend on the age and on the family situation (partnered or with dependent children) of the recipients.

In some countries, UI/UA benefits for young unemployed decrease when they live with their parents (Australia, New Zealand, and Finland). In Finland the benefit is reduced by parents' income above an income threshold. The duration of the unemployment benefits vary between five months (Greece) to 48 months (Denmark). In Australia, Belgium, Finland, Germany, Ireland, New Zealand and the United Kingdom, the payments are theoretically unlimited.

In countries where unemployment benefits are not payable since they require a minimum employment record or period of unemployment insurance contributions, 20-year-old unemployed people are eligible for benefits of last resort such as social assistance, except in France and Spain. In these countries the minimum age requirements are 25 and 24, respectively. Thus unemployed people below that age who have no employment history are eligible for neither unemployment benefits nor social assistance and depend on the family support networks when they exist. In the Netherlands, the young unemployed people who are not eligible for unemployment benefits receive reduced social assistance. However, there are not many recipients since parents have to provide financial support to their children up to 21 years old. Therefore, municipalities are only obliged to provide benefits to applicants in this age group in exceptional circumstances.

In most countries, young unemployed people qualify for housing benefit (HB). Further details on the benefit are given in the next section.

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Table 1.4. **Benefits available to the young unemployed, 2005**

For a 20-year-old unemployed single person, living alone with no family responsibilities and no employment record[1]

	Maximum unemployment benefit			Age group subject to special rules	Duration (months)	Other benefits available[2]		Additional information
	Scheme	National currency	% of AW			Long-term SA	Housing benefits	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Australia	UA	8 489	17	16-20	Unlimited	Yes	Yes	Youth allowance. Reduced benefit for those living at home. Age limit extended to 24 for students.
Austria	–	–	–	–	–	Yes	–	For those aged under 25, a 26-week (instead of one year) employment record qualifies for UI.
Belgium	UI	4 490	12	<30	Unlimited	Yes	–	*Allocation d'attente*. Benefits vary by age and are granted after a waiting period of 5-10 months.
Canada	–	–	–	–	–	Yes	–	–
Czech Republic	–	–	–	–	–	Yes	Yes	–
Denmark	UI	136 764	43	–	48	Reduced	Yes	Upon joining the insurance immediately after education.
Finland	UA	5 996	18	–	Unlimited	Yes	Yes	Labour Market Support for those entering labour force for the first time and living with parents only get 60% of UA benefit.
France	–	–	–	–	–	No	Yes	–
Germany	UA	4 140	10	–	Unlimited	–	Yes	–
Greece	UA	876	4	20-29	5	–	Yes	–
Hungary	–	–	–	–	–	Yes	Yes	To be eligible for SA a certain period of cooperation with the local government is needed.
Iceland	–	–	–	–	–	Yes	Yes	–
Ireland	UA	7 738	27	–	Unlimited	No	No	–
Italy	–	–	–	–	–	–	–	–
Japan	–	–	–	–	–	Yes	Yes	–
Korea	–	–	–	–	–	Yes	Yes	Other family members are obliged to provide support first.
Luxembourg	UI	12 321	29	<21	12	No	No	After a six-month waiting period; benefit is 70% of minimum wage (40% if aged under 18).
Netherlands	–	–	–	–	–	Reduced	Reduced	Benefit receipt is exceptional since parents provide financial support up to age 21.
New Zealand	UA	8 597	21	–	Unlimited	–	Yes	–
Norway	–	–	–	–	–	Yes	Yes	–
Poland	–	–	–	–	–	Yes	Yes	A recent school leaver in on-the-job training is eligible to receive 40% of basic unemployment insurance benefit.
Portugal	–	–	–	–	–	Yes	–	–
Slovak Republic	–	–	–	–	–	Yes	–	–
Spain	–	–	–	–	–	No	–	–
Sweden	UA	83 200	26	–	14	Yes	Yes	Waiting period of four months if student entering labour market without previous employment record.
Switzerland	–	–	–	–	–	Yes	–	–
Turkey	–	–	–	–	–	–	–	–
United Kingdom	UA	2 314	8	18-24	Unlimited	Yes	Yes	If duration is at least six months, participation in training is compulsory under "New Deal" programme.
United States	–	–	–	–	–	Yes	–	–

1. All benefit amounts are shown on an annualised basis. "–" indicates that no information is available or not applicable.
2. "No" indicates that the benefit exists but is not available for the young unemployed.

Source: OECD Tax-Benefit Models.

e) Housing benefits

Low-income households may be entitled to receive support for housing-related costs and these forms of support can significantly reduce net housing costs and add to out-of-work or in-work income. Housing-related programmes are often the responsibility of regional, local or municipal authorities and providing a comprehensive presentation of these instruments at the country level is therefore difficult. In this study, we only consider cash benefits paid for rented private accommodation. Apart from these case benefits, there is a broad range of different types of housing-related support, other financial assistance (*e.g.* low-interest loans) and benefits in-kind (*e.g.* subsidised housing) with some of them available irrespective of income levels. Also, it is important to bear in mind that other housing-related schemes may be in place for households whose housing situation is different (such as owner-occupiers).

Table 1.5 shows that there are two types of housing cost support for rented accommodation. The first one is granted to any low income households regardless of whether they are working or not. The second one is part of SA schemes and is exclusively paid to SA claimants.

In Austria, Denmark, Finland, Germany, Norway and Sweden, the two housing benefits coexist. The regular one is included in the SA means-test and hence impact on the SA related rent allowance amounts (Austria, Denmark, Finland and Sweden). In the other countries, households cannot cumulate the two types of housing cost support. In Germany, the Unemployment Benefit II (UA/SA) recipients are not eligible for the regular HB and only receive the SA related rent allowances. In Norway, the SA related rent assistance is provided by municipalities and the claimants do not benefit from the national regular housing cost support.

In France and the United Kingdom, only one housing benefit scheme exists and is provided to low-income households regardless of their primary benefit when they are unemployed. In the United Kingdom, housing benefits cover the "eligible" rent, that is, the rent on which the benefit is payable. This is means-tested but is paid in full for Income Support (SA) claimants.

A general housing benefit scheme does not exist in Belgium, Canada, Japan, Korea, Luxembourg, the Slovak Republic and Switzerland. However, those countries supply housing cost support through their SA programme or subsidised rented accommodations. In Japan, a housing aid complements SA and covers housing costs up to a limit of JPY 13 000 per month (3% of AW) in Osaka and Tokyo.

Housing cost support is also provided to low-income households by the tax system. In Canada, Greece and Italy, tax credits refund a part of the total rent that is paid during the fiscal year. However, in Italy, the credit is provided only for a particular type of rent contract (*contratti a canone convenzionale*) that is not commonly used.

For the purpose of calculating the value of housing benefits, an assumption must be made about housing costs. Unless otherwise noted, the assumption throughout this study is that household housing costs amount to 20% of AW earnings, regardless of actual income levels or the employment situation (see Annex A). With this assumption, maximum regular housing benefit levels for an unemployed couple with two children vary from 2 to 20% of AW (Germany and Ireland respectively). In the majority of countries, household composition is considered in HB calculations and the presence of children may substantially increase the benefit amount.

Table 1.5. **Cash housing benefits for rented accommodation,[1] 2005**

	Regular housing benefits[2]							Other cash support	
	Entitlement depends on					Description	Maximum benefit amount in % of AW[3]	Treatment of housing costs in social assistance	Treatment of housing costs in tax system
	Household type/size	Income	Dwelling size	Geographic location	Actual rental cost				
	[1]					[2]	[3]	[4]	[5]
Australia	Yes	Yes	–	–	Yes	Rent assistance for benefit recipients: 75% of rent above a threshold until maximum amount is reached. Also low rent public housing for low income households.	6	–	–
Austria	Yes	Yes	Yes	–	Yes	"Allgemeine Wohnbeihilfe" is the difference between the countable housing expenditure and the reasonable housing expenditure.	9	Housing benefits may be provided through social assistance or other schemes, *e.g.* in Vienna the *Mietbeihilfe* for people receiving social assistance and depend upon household and dwelling size, also heating assistance is provided from October to April.	–
Belgium	–	–	–	–	–	No general scheme. Public low-rent housing for low-income families.	–	–	–
Canada	–	–	–	–	–	No general scheme.	–	Rules and payment rates determined provincially. A shelter allowance is included in the Ontario Works programme (SA) and amounts are determined by household size, income and location.	The Property Tax Credit includes 20% of rent paid during the year with a maximum of CAD 250, to which 10% of the occupancy cost is added.
Czech Republic	Yes	Yes	No	–	No	Difference between the estimated rent required and a quotient.	6	–	–
Denmark	Yes	Yes	Yes	–	Yes	Difference between 60% of (adjusted) rent and own payment (18% of income with limits) subject to a maximum.	11	Rent above a threshold is paid after deducting regular HB.	–
Finland	Yes	Yes	Yes	Yes	Yes	80% of (limited) rent above a "deductible amount".	16	"Reasonable" housing costs can be covered (93% limit).	–
France	Yes	Yes	–	Yes	Yes	Several schemes provide assistance to low-income households.	15	Basic amount included in resources used to calculate entitlement to SA.	–
Germany	Yes	Yes	–	Yes	Yes	General scheme with various ceilings (including the quality of the dwelling).	2	Unemployment Benefit II (UA/SA) recipients also qualify for a housing and heating allowance which covers the actual expenses, if reasonable.	–

Table 1.5. **Cash housing benefits for rented accommodation,[1] 2005** *(cont.)*

	Regular housing benefits[2]							Other cash support	
	Entitlement depends on					Description	Maximum benefit amount in % of AW[3]	Treatment of housing costs in social assistance	Treatment of housing costs in tax system
	Household type/size	Income	Dwelling size	Geographic location	Actual rental cost				
	[1]					[2]	[3]	[4]	[5]
Greece	Yes	Yes	–	–	–	Subsidies are increased by 50% for beneficiairies whom annual family net income is lower than EUR 7 500.	11	–	Tax credit: 20% of the total annual amount of rent paid for the main residence, not exceeding EUR 1 000, provided that the taxpayer does not receive any rent subsidy.
Hungary	Yes	Yes	Yes	–	–	Administered by local authorities. Covers rental costs and maintenance expenses.	2	–	–
Iceland	Yes	Yes	–	–	Yes	Maximum amount is 50% of rent up to a limit.	10	–	–
Ireland	Yes	Yes	–	–	Yes	Rent or mortgage interest supplements are calculated to ensure that a person, after the payment of rent or mortgage interest, has an income equal to the rate of SA appropriate to their family circumstances less a minimum contribution of EUR 13 per week.	20	–	–
Italy	–	Yes	–	Yes	–	Rent subsidies for low income households; eligibility conditions and amounts differ at regional and municipal levels.	–	–	Wastable tax credit is provided only for particular types of rent contracts , “contratti a canone convenzionale”, that are the least utilised of all in Italy.
Japan	–	–	–	–	–	No general scheme.	–	Housing costs are covered up to a limit, *e.g.* JPY 156 000 (3% of AW) in Osaka/ Tokyo.	–
Korea	–	–	–	–	–	No general scheme.	–	Additional amount based on size of household to cover rent and maintentance/repair expenses.	–
Luxembourg	–	–	–	–	–	No general scheme.	–	Rent in excess of 10% of minimum income up to a maximum of EUR 1 487, conditional on receipt of SA.	–
Netherlands	Yes	Yes	–	–	Yes	Minimum “standard rent” must be paid by household, 100% of rent above this is paid up to a “quality allowance limit”, then 75% of remainder up to a ceiling.	8	–	–
New Zealand	Yes	Yes	–	Yes	Yes	70% of rent exceeding 25% of the unemployment insurance standard rates plus the first child rate of Family Support for people with children.	6	–	–

Table 1.5. **Cash housing benefits for rented accommodation,[1] 2005** *(cont.)*

	Regular housing benefits[2]							Other cash support	
	Entitlement depends on					Description	Maximum benefit amount in % of AW[3]	Treatment of housing costs in social assistance	Treatment of housing costs in tax system
	Household type/size	Income	Dwelling size	Geographic location	Actual rental cost				
	[1]					[2]	[3]	[4]	[5]
Norway[4]	Yes	Yes	–	–	Yes	For the elderly and families with children aged under 18. Benefit is 70% of difference between actual and a standard "reasonable" housing expense.	–	Housing allowance including heating and electricity expenses is paid by local authorities.	–
Poland	Yes	Yes	Yes	–	Yes	The difference between actual housing costs and a "reasonable payment" that depends on dwelling size.	16	–	–
Portugal	–	–	–	–	–	Rent subsidies for tenants whose economic situation has experienced severe and sudden deterioration in terms of household income, namely due to unemployment or death of family earner.	–	–	–
Slovak Republic	–	–	–	–	–	No general scheme.	–	Housing allowance exists in terms of assistance in material need.	–
Spain	–	–	–	–	–	No general scheme. Some regions provide benefit.	–	–	–
Sweden	Yes	Yes	–	–	Yes	Amount also depends on age of recipient.	11	Rent in excess of regular HB is added.	–
Switzerland	–	–	–	–	–	No general scheme. Some regions provide benefit for low income households, elderly persons or families with children.	–	Housing costs are added up to a limit.	–
Turkey	–	–	–	–	–	–	–	–	–
United Kingdom	Yes	Yes	–	Yes	Yes	Paid on "eligible" rent only. Amount is rent minus 65% of difference between net resources and SA rates (determined by family type).	19	100% of "eligible" rent is covered for SA claimants when family assets are less than a limit, benefit is reduced above limit up to a ceiling.	Also local benefits to help pay Council Tax (Great Britain only). In the tax-benefit calculations shown in this publication, Council Tax and Council Tax Benefit are not taken into account.
United States	–	–	–	–	–	No federal scheme. Housing assistance exists in some states for very low income households.	–	Rent (if it exceeds 50% of net income and with a maximum of USD 4 404) is included in the food stamps means test.	–

1. All benefit amounts are shown on an annualised basis. "–" indicates that no information is available or not applicable.
2. There are sometimes other schemes aimed at specific groups, *e.g.* Denmark: elderly or disabled; Finland: pensioners and students; Greece: elderly; Sweden: pensioners.
3. For an unemployed couple with two children aged under six under the assumption that housing costs are 20% of the gross earnings of an average wage.
4. Unemployment benefit amount exceed the income limit to be eligible for housing benefit.

Source: OECD Tax-Benefit Models.

f) Family benefits

Table 1.6 gives an overview of various schemes of family benefits (FB) across countries. In most cases, benefits are restricted to families with children. Exceptions are Italy where benefits are also available for dependent spouses and Greece where employers, who provide supplementary family benefits, grant 10% of gross earnings for the wife regardless her employment status and her income level.

Column 5 of Table 1.6 shows the maximum age underlying the definition of a child in national regulations, which is frequently higher for children in education. Children may not give rise to family benefits if they have income of their own, are married or do not live with their parents. Amounts of benefit per child can be uniform but more often vary by age and/or number of children. It is interesting to note the different age profiles of child benefit amounts (Column 3, where "+" and "–" indicate that benefit amounts for older children are higher and lower respectively).

In more than half of the countries, FB amounts do not depend on family income and are paid as universal benefits. Among those countries, Austria and France pay additional means-tested benefits to low-income families and families with young children respectively. Regarding households with young children, childcare benefits may also be eligible depending on conditions that are described in Chapter 4.

Non-means tested FB for a one-child family are most generous in Austria and Luxembourg since they amount to 7% of AW. When FB are not means-tested, amounts may vary depending on the household work situation. For instance, in Belgium FB are increased from the seventh month of unemployment and, in Portugal the benefits are doubled for a household with two children and at least one UI/UA recipient. In 11 countries, benefit amounts are reduced for higher-income families (Column 6). For instance, in Iceland, the benefits decrease after an income limit with withdrawal rates that vary with the number of children, 3, 7 and 9% for one, two and three children respectively.

In Australia, Canada, Germany and New Zealand, transfers may take the form of non-wastable (or "refundable") tax credits. These are tax reductions that are not limited to income tax amounts and are therefore akin to cash benefits. Given this equivalence, they are included in Table 1.6 and counted as FB in the model results discussed in the subsequent chapters. In those countries the family tax credits are means-tested, except in Germany. As a matter of fact, in the latter country, the tax credit which is not related to the household's income does not phase out with increasing earnings. As most of universal FB, it increases by the number of children, but only from the fourth child.

g) Lone-parent benefits

The present sub-section summarises benefits and tax reductions that lone parents can receive independently of other out-of-work benefits while working or caring for their children (Table 1.8). Any family-related additions to unemployment and SA benefits, including special entitlements or eligibility conditions for lone parents, are shown in Tables 1.1 to 1.3 above.

Column 1 of Table 1.7 shows that, in many countries, lone parents benefit from special tax adjustments that reduce their income tax. Three types of adjustment exist: specific tax schedules, tax allowances and tax credits. Specific income tax brackets and tax rates for lone parents are applied in Ireland, Luxembourg and the United States. In Norway, lone parents who receive the lone-parent benefit ("Transitional Benefit") have their income tax

Table 1.6. **Family benefits,[1] 2005**

	Maximum benefit for one child aged 3-12		Benefit amount per additional child varies with[2]		Upper age limit for children (student)	Means test on	Observations
	National currency	% of AW	Age of child	Number of children			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Australia[3]	4 095	8	+/-	+ from 4th	20 (24)	Family earned income.	Family tax benefit (FTB) part A to help families with cost of raising children. Can be paid as a benefit or as a tax allowance.
	3 140	6	–	0	15 (18)	Earned income of secondary earner in a couple.	FTB part B to provide extra help for families with one main income. Family based payment which can be paid as a benefit or as a tax allowance.
Austria	1 571	7	+/-	+	19 (27)	No	For low income families there is an extra supplement for each additional child from the 3rd.
	611	3	0	0			Non-wastable tax credit.
Belgium	1 147	3	+/-	+/-	17 (24)	No	For unemployed, family benefits are increased as from 7th month of unemployment.
Canada	1 228	3	0	+ from 3rd	17	Family taxable income.	Canada child tax benefit (non-wastable tax credit). Additional supplement per child aged under seven if no childcare expenses are claimed.
	1 722	4	0	–		Family net income.	National Child Benefit (NCB) supplement for low income families.
Czech Republic	8 717	4	+/-	0	14 (25)	Family income relative to minimum living standard.	Three income levels used to define level of benefit: increased, basic or reduced.
Denmark	12 184	4	+/-	0	17	No	—
Finland	1 200	4	0	+	16	No	Fixed rate of increase for each additional child.
France	690	2	+	+	20	No	Family allowance: zero benefit for first child. For 2 children (under age 11) the amount per child would be EUR 690 (2% of AW).
	1 983	6	—	—	3	Yes	*Allocation pour jeune enfant*: for families with young children.
Germany	1 848	4	0	+ from 4th	18 (27)	No	*Kindergeld* is a non-wastable tax credit in the form of a monthly tax refund (deducted from SA if no tax liability).
Greece	134	1	0	+/-	17 (21)	No	Employment condition: 50 days of work prior to the claim. In addition, the employer usually grants 5% of gross earnings to each worker for each child and 10% for the wife independently of her income status. The employer benefit and extra family benefit supplements for large families are taxable.
Hungary	61 200	3	0	+	18 (23)	No	—
Iceland	186 394	6	–	+	15	Basic allowance is reduced by a percentage of income above limit. Supplement is not means tested.	Basic allowance has an income limit of ISK 1 859 329 for a couple. Reduction is 3, 7 and 9% for one, two and three children respectively. There is a supplement for children aged under seven.
Ireland	1 579	5	0	+ from 3rd	15 (18)	No	—
Italy(4)	1 010	4	0	+	17	Household taxable income.	Benefit is paid by employers and is only granted if at least 70% of household taxable income is employment income (or earnings replacement benefits including unemployment benefits and employment pension). A spouse is considered a dependant so a couple with no children can receive family allowance. Benefits are reduced in proportion to days not worked.

Table 1.6. **Family benefits,[1] 2005** *(cont.)*

	Maximum benefit for one child aged 3-12		Benefit amount per additional child varies with[2]		Upper age limit for children (student)	Means test on	Observations
	National currency	% of AW	Age of child	Number of children			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Japan	60 000	1	0	+ from 3rd	9	Gross income less employment income tax deduction.	Amount per child doubles as from 3rd child.
Korea	—	—	—	—	—	—	—
Luxembourg	2 741	7	+	+	17 (26)	No	Maximum amount by age is reached at age 12.
Netherlands	858	2	+	0	17	No	Under the previous system (which still applies for children born before 1 January 1995) the amount per child increased with the number of children.
New Zealand	3 744	9	+	–	18	Family earned income.	Family Support Tax Credit (includes Child Tax Credit available for families not receiving benefits).
Norway	11 640	3	0	0	17	No	Lone-parents receive a supplement for child aged between one and three.
Poland	516	2	0	+ from 3rd	17 (20)	Gross income per household member relative to net income per capita.	Supplementary benefits available
Portugal	369	3	0	0	16 (24)	Income relative to minimum wage.	Higher benefits for children aged under one. Benefits also vary relative to family income (five levels). Regarding first income level households, benefit amount is doubled in September for schooling expenses. UB recipients with income within this income level with two children of three and six years of age would normally be entitled to receive twice the benefit amounts.
Slovak Republic	6 480	3	0	0	15 (25)	No	The child allowance is provided at a uniform amount
Spain	291	1	0	0	17	Gross family income.	—
Sweden	11 400	4	0	+ from 3rd	16 (20)	No	Basic allowance remains fixed but there is a supplement from the 3rd child onwards.
Switzerland (Zurich)	2 340	3	+	0	15 (24)	No	Amounts are fixed at the level of the cantons and paid by the employer. Benefits are taxable but not subject to social contributions.
United Kingdom	835	3	0	–	15 (18)	No	Fixed rate from 2nd child. A Child Tax Credit is also provided regardless the claimants' working situation.
United States[4] (Michigan)	1 056	3	0	+	—	Yes	Temporary Assistance for Needy Families (TANF): benefit is not based on number of children but on family size at the time of application; it does not increase thereafter. The benefit amounts and durations vary by State.

1. Family benefits including non-wastable tax credits. All benefit amounts are shown on an annualised basis. "—" indicates that no information is available or not applicable. In general family benefits are not taxable unless otherwise indicated.
2. "+": increases, "-": decreases, "0": remains the same, "+/-": increases or decreases (some countries give higher rates to the youngest and oldest age groups).
3. See also the Parenting Payment in Table 1.7.
4. Benefit amount for the first child is calculated as the difference in benefit between a three-member and a two-member household.

Source: OECD Tax-Benefit Models.

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Table 1.7. **Lone-parent tax and benefit schemes,[1] 2005**

	Type of benefit	Maximum supplementary benefit for one child aged three[2]		Test on income or capital	Earnings/income disregard and benefit withdrawal	Additional information
		National currency	% of AW			
	[1]	[2]	[3]	[4]	[5]	[6]
Australia	Parenting payment for low income families with primary care of children: higher rate. In addition, Family Tax Benefit part B is not means-tested for lone parents.	3 016	6	Income	Disregard: AUD 3 172 plus AUD 640 per child (values are for the entire amount of Parenting Payment, not just the lone-parent supplement).	Lone parents tend to claim parenting payment rather than unemployment assistance since the benefit received is higher. No other benefit may be received at the same time except for the pharmaceutical allowance and the maximum rate family tax benefit.[3]
Austria	Lone-parent tax credit (non-wastable): same rate as "sole-earner" tax credit for one-earner couple.	—	—	—	—	—
Belgium	Childcare supplement: one-off payment.	744	2	No	—	For long-term unemployed lone-parents who starts to work at least part-time.[3]
Canada (Ontario)	Childcare supplement: higher rate.	210	1	Net family income	Disregard: CAD 20 000.	To help cover childcare cost for working families.
	Federal and provincial wastable income tax credits plus a non-wastable federal goods and services tax credit.	—	—	—	—	Lone parents receive the same amount of tax credits as a couple (with dependent spouse).
Denmark	Family benefit supplement.	4 312	1	No	—	—
	Family benefit supplement per child aged 0-17.	16 456	5	No		
Finland	Family benefit supplement.	1 857	6	No	—	—
France[4]	Lone-parent benefit (API).	8 673	28	Net taxable income	—	The benefit tops up net taxable income to this maximum level. EUR 2 168.28 per additional child.
	Family benefit for young children (PAJE): higher income disregard.	—	—	Net taxable income	Disregard: additional EUR 8 039.	—
	Different family quotient in taxable income calculation.	—	—	—	—	Additional half-part in family quotient for the first child. Taxable income is divided by the number of parts. The total income tax equals the liable tax on one part multiplied by the number of parts.
Germany	Tax allowance.	[1 308]	—	—	—	—
Hungary	Family benefit: higher rate.	10 800	1	No	—	Same increase for two children, HUF 7200 for three+ children.
Iceland	Family benefit: higher rate.	92 944	4	Income	Disregard: ISK 929 665, 3% withdrawal rate.	ISK 72 366 for each additional child. Benefit withdrawal rates increase to 7% for two children and 9% for three+ children.
	Mother/fatherhood allowance.	57 972	2	No	—	For a parent with two children aged under 18. ISK 150 720 for three children.
Ireland	Lone-parent benefit.	8,741	34	Income (excluding benefits)	Disregard: EUR 7 618 plus 50% of gross earned income above this level.	EUR 1 004 for each additional child. Entitlement to only 50% of basic rate of UI with no increase for child dependants.
	Single Parent Family Relief: wastable tax credit.	—	—	—	—	Supplement to basic tax credit so total equals married tax credit.
	Different income tax schedule.	—	—	—	—	20% taxable income band at EUR 33 400.

Table 1.7. **Lone-parent tax and benefit schemes,[1] 2005** *(cont.)*

	Type of benefit	Maximum supplementary benefit for one child aged three[2]		Test on income or capital	Earnings/income disregard and benefit withdrawal	Additional information
		National currency	% of AW			
	[1]	[2]	[3]	[4]	[5]	[6]
Japan	Lone-parent benefit.	502 560	10	Income	Disregard of JPY 1.717 million. Reduction of JPY between 10 000 and 32 000 for income up to JPY 4.125 million.	JPY 562 560 for parent with two children plus JPY 36 000 for each additional child.
Korea	Child Raising Support.	240 000	1	Property and income	Varies with number of family members.	Combined value of income and property threshold KOR 0.87-1.92 million for two to six family members.
Luxembourg	Tax allowance.	[1 920]	—	—	—	—
	Different income tax schedule.	—	—	—	—	—
Netherlands	Single parent and additional tax credit, both wastable.	[2 802]	—	—	—	Basic allowance of EUR 1 401 plus supplement of 4.3% of earned income up to same amount.
New Zealand	Domestic Purposes Benefit.	15,173	37	Earnings	Disregard NZD 4 160; withdrawal rate of 43% up to NZD 9 360, 70% above.	—
Norway	Transitional Benefit.	112 293	38	Income (earnings plus UI).	Disregard NOK 30350, 40% withdrawal rate.	Entitlement limited to three years after the birth of the youngest child.
	Family benefit.	11 640	4	No	—	Lone parents are paid one child more than the actual number.
	Family benefit supplement.	7 920	3	Earnings	Earnings above NOK 30 350 stop entitlement.	Independent of the actual number of children. At least one child must be younger than three years old.
	Childcare benefit.	8 144	3	—	—	64% of expenses up to maximum: NOK 13 236 for two children and NOK 18 996 for three+ children.
	Different income tax schedule.	—	—	—	—	"Tax liability limitation schedule".
Poland	Family benefit supplement.	2 040	7	Gross income	Disregards PLN 504 (net income criteria per capita).	Supplementary allowance from PLN 2 040 to 9 000 per child.
		—	—	—	—	For single parent that are not entitled to unemployment benefits anymore: PLN 4 800.
	Wastable tax credit.	[530.18]	—	—	—	Like for couples, the amount of the basic tax relief is doubled.
Portugal	Wastable tax credit for dependent child: higher rate.	[150]	—	—	—	—
Spain	Tax allowance: higher personal rate.	Less than for a two-parent family		—	—	Basic tax relief for head of household.
Sweden	Lone-parent benefit.	14 076	4	No	—	For children up to age 16 (20 if student).
United Kingdom	Working Tax Credit: Lone Parent Element.	1,543	5	Yes	—	Lone-parents must be working over 16 hours per week.[3]
United States	Tax allowance: higher personal rate.	Less than for a two-parent family		—	—	Basic tax relief for a single head of household.
	Different income tax schedule.	—	—	—	—	"Head of household" tax bands.

1. It is assumed that neither lone parents nor their children receive alimony payments from the other parent. All benefit amounts are shown on an annualised basis. "—" indicates that no information is available or not applicable. Specific provisions for lone parents receiving unemployment benefits or social assistance can be found in the corresponding tables.
2. Where the benefit is a complement to another benefit or tax reduction, the amount shown is the difference between a one-parent/one child situation and a two-parent/one-child situation (Australia, Canada, Hungary and Iceland). Where the benefit is in the form of a tax allowance or deduction, its income value depends on the marginal tax rate. The amount of the tax allowance/deduction is shown in square brackets in these cases (Germany, Luxembourg, the Netherlands, Portugal, Spain and the United States).
3. See also Table 1.11.
4. API: *Allocation de parent isolé*, PAJE: *Prestation d'accueil du jeune enfant*.

Source: OECD Tax-Benefit Models.

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calculated on the basis of the special "tax limitation rule" that is more advantageous than the regular tax schedule. Once the lone-parent benefit is exhausted, taxation is levied over lone-parents' income through the regular couple tax schedule that is more favourable than the single tax schedule.

In Germany, Luxembourg, Spain and the United States, lone parents have their taxable income reduced by specific tax allowances; in Spain and the United States these are lower for a lone parent with one child than for equivalent two-parent families. In France lone parents gain a half part in the calculation of the family quotient that divides taxable income into fractions. Total income tax equals the tax calculated on one fraction that is multiplied by the family quotient. The family quotient for a lone parent with one child equals 2 whereas it amounts to 2.5 for a two-parent family.

Specific tax credits for lone parents exist in Austria, Canada, Ireland, the Netherlands, Poland, Portugal and the United Kingdom. With the exception of Austria and Canada, the tax credits are not refundable and limited in value to any income tax paid. In Australia the Family Tax Benefit is paid through the Family Assistance Office either as fortnightly payment or as a reduction of income tax.

Separate benefit programmes for lone parents exist in France, Iceland, Ireland, Japan, Korea, New Zealand, Norway and Sweden. In Australia, Denmark, Finland, Hungary, Iceland, Norway and Poland, supplements to regular family benefits are paid to lone parents. In Belgium, Canada, France and Norway, lone-parent additions to childcare benefits exist. Several countries apply combinations of more than one type of lone-parent benefits and tax adjustments (*e.g.* Ireland, Norway).

Benefit amounts for a lone parent with one child are shown in Columns 2 and 3. For tax allowances or deductions, the income value will depend on the lone-parent's tax situation (the amount shown is therefore the tax allowance and not the amount by which taxes are reduced). Where benefit amounts are supplements to family or childcare benefits, amounts indicate the differential in relation to the two-parent situation. In Italy, where specific tax reductions or benefits for lone parents do not exist, family benefits for lone-parent households can be lower than for two-parent families since family benefits are available for dependent spouses.

In addition to the entitlements shown in Table 1.7, several countries operate employment-conditional benefits that are either particularly targeted towards lone parents or incorporate special provisions to make benefits more generous for lone parents. These benefits are, however, also available to other groups and are discussed in the following sub-section.

h) Employment-conditional benefits

Most benefits are withdrawn when people take up employment or increase working hours. This mechanism can, depending on wage levels and the size of the benefit being withdrawn, severely reduce any financial gain of work efforts. In an attempt to ensure that some incentive to work is maintained, many OECD countries allow benefit recipients to work a certain number of working hours or cumulate earnings to a certain limit ("earnings disregards") without stopping benefit receipt.

In addition, several countries have recently introduced more explicit or comprehensive measures, intended to enhance the financial reward to work. Net incomes in work can be raised through higher wages, increased benefits, or reduced tax burdens or

other work-related expenditures (such as childcare costs). Approaches differ across countries and are frequently a combination of several measures. They are designed to accentuate the difference between in-work and out-of-work incomes and thereby encourage people to leave a situation of benefit dependency.

Table 1.8 summarises their main features (the net effects of employment-conditional benefits on household incomes are quantified in Chapter 3). It includes both benefits and tax reductions in order to permit comparisons across countries with different institutional setups. Tax concessions are included if they are targeted towards certain groups of workers (*e.g.* those working more than a minimum number of hours and having income below a relevant limit) rather than being available to all working individuals. It should be noted that it is not always possible to clearly distinguish between employment-conditional benefits or tax reductions and other categories of tax-benefit instruments. For instance, childcare benefits frequently complement (or share several features with) in-work benefits as they can also be designed to make work more financially attractive. Examples are the Ontario Child Care Supplement for Working Families in Canada and the *Complément de Garde d'Enfant* (Childcare supplement) for lone parents in Belgium and the Italian family benefit, which is reduced in proportion of days not worked. Where such overlaps exist, they are noted in the relevant tables. Further details are provided in the individual country chapters (*www.oecd.org/els/social/workincentives*).

Five countries provide employment conditional tax credits that are refundable: France (*Prime Pour l'Emploi*), New Zealand (Family Tax Credit and Transitional Tax Allowance), the Slovak Republic (child tax credit), the United Kingdom (Working Tax Credit), and the United States (Earned Income Tax Credit). The tax credits are akin to cash benefit insofar as they constitute a financial gain for low income households. As a matter of fact, when tax credits are higher than income tax, the latter is completely withdrawn and the difference is paid cash. Households may also receive the tax credit full amount when their taxable income is within the "tax free area" (*e.g.* France). Tax credits equally exist in the Netherlands (Work Credit, Combination Credit and Additional Combination Credit). However they are wastable since their amount is limited to the payable tax. In Finland allowances in municipality income taxation reduce taxable income and therefore the total income tax.

Employment-conditional benefits are also available in Australia, Belgium, Canada (the scheme applying in Ontario is given as an example but similar programmes are operated in other provinces), Ireland, Japan, Korea, and New Zealand (Work Start Grant, one of various schemes that are available to people moving into work or in work). Substantial country differences exist in terms of the following characteristics [for convenience, the remainder of this sub-section refers to both benefits and tax reductions as employment-conditional or in-work (IW) *benefits*]:

- *Work conditions*: in order to target IW benefits towards relevant groups, eligibility may depend on a number of factors. These include having in-work earnings of at least a certain amount (Column 5), working a minimum number of hours (Column 6) and entering/changing employment (Column 7). All employment-conditional measures employ at least one of these conditions or they feature gradually increasing IW benefits (Column 8) as a means of targeting individuals with specific earnings levels or hours of work.

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Table 1.8. **Employment-conditional benefits,[1] 2005**

	Name of programme	Type of benefit	Beneficiaries	Maximum benefit	Minimum earnings	Working hour criterion	Transition criterion	Phase-in rate	Phase-out rate	Earnings when phasing out begins	Approximate maximum earnings when benefit is phased out completely	Income assessment unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Australia	Employment entry payment.	Benefit	Unemployed lone parents or long term income support recipients. Eligible once every 12 months.	Lump sum of AUD 104.	No	Full time.	Starting employment.	No	No	—	—	—
Belgium	*Complément de garde d'enfant.*	Benefit	Long-term unemployed lone parents.	Lump sum of EUR 743.68.	No	At least half-time.	Starting employment.	No	No	—	—	—
	Bonus à l'Emploi/ Werkbonus.	Reduced social security contributions.	Working individuals with low income.	Maximum value of SSC allowance is EUR 1 395 (4% of AW).	No	No	No	No	26%	EUR 14 593.28 (40% of AW).	EUR 20 207.10 (55% of AW).	Individual
Canada[2]	Ontario start up benefit.	Benefit	Social assistance recipients (eligible once every 12 months).	Lump sum of CAD 253.	No	No	Starting or changing employment, or joining a training programme.	No	No	—	—	—
Finland	Earned income allowance.	Income tax allowance.	Working individuals with low income.	Maximum value of tax allowance is EUR 3 850 (12% of AW). Maximum value in terms of tax reduction is approximately EUR 620 (2% of AW) per employee.	EUR 2 500 (8% of AW).	No	No	For value of tax reduction: 2 to 12 %, depending on earnings level.	For value of tax reduction: 1%.	EUR 14000 (43% of AW).	EUR 110 873 (339% of AW).	Individual
France	*Prime pour l'emploi.*	Non-wastable tax credit.	Working individuals with low income.	Approximately: EUR 537, 639 and 686 (2% of AW) for an individual, lone parent with two children and couple with two children.	Approximately EUR 3 507 (11 % of AW).	No	No	4-5%	9%	Approximately EUR 14 644 (66% of AW).	Approximately EUR 20 100, 32 900 and 53 600 (66%, 108% and 176% of AW) respectively for an individual, lone parent with two children and one-earner couple with two children.	Family

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Table 1.8. **Employment-conditional benefits,[1] 2005** *(cont.)*

	Name of programme	Type of benefit	Beneficiaries	Maximum benefit	Minimum earnings	Working hour criterion	Transition criterion	Phase-in rate	Phase-out rate	Earnings when phasing out begins	Approximate maximum earnings when benefit is phased out completely	Income assessment unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Germany	*Mini-Job*	Reduced social security contributions.	Working individuals with low income.	Maximum SSC reduction of EUR 1 018 (2% of AW).	No	No	No	—	6% to 21%	Full SSC reduction until earnings reach EUR 4 800 (12% of AW).	EUR 9 600 (23% of AW).	Individual
Hungary	Employee tax credit.	Wastable tax credit.	Working individuals with low income.	HUF 108 000 (6% of AW).	No	No	No	18%	18%	HUF 1 350 000 (74% of AW)	HUF 1 950 000 (107%of AW)	Individual
	Extended employee tax credit.	Wastable tax credit.	Working individuals with low income.	HUF 15 120 (1% of AW).	HUF 600 000 (33% of AW).	No	No	18%	5%	HUF 1 000 000 (55% of AW)	HUF 1 302 400 (72% of AW)	Individual
Ireland	Back-to-work allowance (BTWA).	Benefit	Long-term unemployed (over two years) aged over 23.	EUR 5 803 (75% of SA amount). 50% of SA amount for 2nd year, 25% for 3rd.	No	—	Starting employment.	No	—	—	—	Individual
	Family income supplement (FIS).	Benefit	Working families with children and low earnings.	60% of difference between net family earnings and income limit (see maximum earnings column).	—	19 hours per week or 38 hours per fortnight	No	No	60%	—	Approximately EUR 24 544 if two children (85% of AW).	Family
	Continued child dependent payment (CCDP).	Benefit	Long-term unemployed (over 12 months) receiving UI or UA.	EUR 874 per child (for 13 weeks only).	No	Full-time for at least four weeks.	Starting employment.	No	No	—	—	Family
	Part-time job incentive (PTJI).	Benefit	Long-term unemployed previously receiving UA.	Flat rate of EUR 4 898 for a single person, EUR 8 154 for a couple (17 and 28% of AW respectively).	No	Part-time.	No	No	No	—	—	—

Table 1.8. **Employment-conditional benefits,[1] 2005** *(cont.)*

	Name of programme	Type of benefit	Beneficiaries	Maximum benefit	Minimum earnings	Working hour criterion	Transition criterion	Phase-in rate	Phase-out rate	Earnings when phasing out begins	Approximate maximum earnings when benefit is phased out completely	Income assessment unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Japan	Re-employment allowance.	Benefit	Unemployment benefit recipient.	Lump sum = remaining days of term of benefits × 1/3 × daily unemployment benefit (basic allowance).	No	20 hours per week.	Starting employment while over of benefit duration remains (minimum 45 days).	No	No	—	—	—
Korea	Early re-employment allowance.	Benefit	Unemployment benefit recipient.	Lump sum of 50% of remaining benefits.	No	20 hours per week.	Starting employment while over 50% of benefit duration remains.	No	No	—	—	—
Netherlands	Combination credit.	Tax credit.	Working families with children aged under 12.	EUR 228 for a tax payer with children.	EUR 4 366 (11% of AW).	No	No	No	No	—	—	Individual
	Additional combination credit.	Tax credit.	A taxpayer who is entitled to the combination credit and who is either a single parent or the partner with the lowest income.	EUR 389.	The same as combination tax credit	No	No	No	No	—	—	Individual
New Zealand	Family tax credit.	Non-wastable tax credit.	Working non-beneficiary families (employees) with low income.	Ensures a minimum net income of NZD 15 080 (37% of AW) before other tax credits.	—	30 hours per week for two-parent family, 20 for lone parent.	No	No	100%	—	See maximum benefit column.	Family
	Child tax credit	Non-wastable tax credit.	Working non-beneficiary families (employees)	NZD 780 (2% of AW) per child per year.	—	No	No	No	Affected by the abatement regime used with the family support tax credit.	—	Reduced when family support tax credit has been abated to zero.	Family
	Transitional Tax allowance.	Non-wastable tax credit.	Working individuals with low income.	NZD 728.	—	Full time or full-time employment but for sickness or accident.	No	No	20%.	NZD 6 240 (15% of AW).	NZD 9 880 (24% of AW).	Family

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Table 1.8. **Employment-conditional benefits,[1] 2005** *(cont.)*

	Name of programme	Type of benefit	Beneficiaries	Maximum benefit	Minimum earnings	Working hour criterion	Transition criterion	Phase-in rate	Phase-out rate	Earnings when phasing out begins	Approximate maximum earnings when benefit is phased out completely	Income assessment unit
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
	Work start grant (WSG).	Benefit	Benefit recipients.	Lump sum of NZD 500.	—	Minimum 15 hours per week.	Starting employment.	No	No	—	—	—
Slovak Republic	Child tax credit.	Non-wastable tax credit.	Working families.	Tax bonus of SKK 5 000 (2% of AW) per child.	SKK 39 000 (18% of AW).	No	No	No	No	—	—	Individual
United Kingdom	Working tax credit.	Non-wastable tax credit.	Working individual.	Maximum GBP 3 752.84 (13% of AW) per adult (working over 30 hours/week), plus GBP 1 437.8 per child, reduced by difference between net income and limit.	No	16 hours per week, 30 hours if aged 25 and over and does not have a child or a disability.	No	No	14%	Net income of GBP 5 060 (17% of AW).	Approximately GBP 13 909 (47% of AW) for a family with two children.	Family
United States	Earned income tax credit.	Non-wastable tax credit.	Working families with children and individuals with low income.	USD 399 without children, USD 2 662 with one child, USD 4 400 with two children.	No	No	No	7.65% without children, 34% with one child, 40% with two children.	In per cent of gross income: 0.765% without children, 15.98% with one child, 21.06% with two children.	USD 6 530 without children, USD 14 370 with children (21 and 46% of AW). All values increased by USD 2 000 if married.	USD 11 750 without children, USD 31 030 with one child, USD 35 263 with two children (38, 100 and 113% of AW). All values increased by USD 2 000 if married.	Family

1. All amounts are shown on an annualised basis. "—" indicates that no information is available or not applicable. Non-general schemes that are specifically targeted towards younger or older age-groups are not shown.
2. Most Canadian provinces have a scheme similar to this; there are no federal programmes.

Source: OECD Tax-Benefit Models.

- *Income conditions*: where benefits are not time-limited, benefit amounts are reduced for higher income levels in order to limit overall costs (Columns 9 and 10). No benefit is received once earnings exceed an upper limit (Column 11).
- *Income assessment unit*: for the purpose of targeting the benefit to low-income individuals, incomes can be assessed individually for the benefit recipient or jointly for the couple or family as a whole (Column 12). While irrelevant for those living alone, the assessment unit can affect benefit entitlements in multi-person households.

Table 1.8 shows that in eight countries (Australia, Belgium, Canada, Ireland, Japan, Korea and New Zealand), benefits are available for certain groups of individuals re-entering employment after a period of unemployment or inactivity (Column 7). These "into-work" benefits can be one-off payments or be paid out over a longer (but limited) period. Since these benefits are only available to individuals finding new employment, they will not affect the financial incentives to remain in work or to seek increased earnings in an existing job. In the remaining countries, benefits add to low-income employees' net income regardless of their previous work status. They are thus not only creating additional financial rewards for seeking work but also increase the payoff of remaining in work for those benefit recipients who already have a job. At the same time, targeting low earnings can reduce employees' incentives to increase work effort or working hours since decreasing in-work benefits will partly offset any increase in gross earnings. Further analyses on financial consequences of employment transitions are made in Chapter 3.

IW benefits in six countries (Belgium, Finland, Japan, Korea, the Netherlands and the Slovak Republic) depend on the income situation of the benefit claimant only, while the incomes and/or work status of other household members can influence benefit entitlements in France, the United Kingdom and the United States. Ireland and New Zealand operate several IW benefit schemes employing different assessment units. The maximum benefit levels that are shown in Table 1.8 are for a one-earner family with two children. Detailed illustrations of the functioning of IW benefits based on model calculations are presented in Section 3.1 of Chapter 3.

2. Income taxes, social contributions and the tax treatment of benefits

Tables 1.9 and 1.10 summarise the main features of income taxes and social contributions across countries. While the focus of the present volume is on social benefits, information about taxes is necessary as a background to the work incentive and income adequacy indicators presented in later sections. More generally, social policies need to be closely co-ordinated with tax-based measures in order to achieve an optimal policy outcome. Finally, information about the tax system is necessary to understand the tax treatment of benefits and, hence, the net benefit amounts available to social policy clients.

Table 1.9 shows that, in several countries, sub-central (regional, local or municipal) taxes are equally or more important than federal income taxes (Columns 2 and 8). At the federal level, all member countries except the Slovak Republic operate progressive tax schedules with higher incomes taxed more heavily. Table 1.9 shows that the number of tax brackets and the steepness of the rate schedule vary significantly, however (Columns 1 and 2). The steepness or "progressivity" of the tax schedule has important redistributive implications but also affects work incentives. Tax burdens can be a particularly important issue at low earnings levels where the net income gains from taking up employment are limited and people tend to react more strongly to financial incentives. In most countries,

very low incomes are automatically exempt from income tax (the lowest tax band limit in Column 1 is mostly above zero) although this is not always the case. Total tax liabilities are also affected by any tax credits available to employees (Column 3). These can be significant (sometimes above 10% of the average wage). If they are conditional on being in employment, they act as in-work benefits aiming at providing additional incentives for taking up employment (some of these tax credits are discussed in Table 1.8 in more detail).

While low earnings enjoy smaller tax burdens, incomes are not always taxed individually. Joint tax systems are common in OECD countries (Column 4). One of the main objectives of extending the tax unit to other family members is to ensure a more equal tax treatment among families with the same overall income but a different balance of earnings between family members. An often-debated problem with a non-individual tax system is, however, that low-income earners can be subject to relatively high tax burdens if they are taxed jointly with a higher-earning spouse or partner, giving rise to high marginal tax rates (MTR). Other features of the tax system can also cause MTRs above the statutory rates (final column). The countries' tax systems are described in details in the publication *Taxing Wages 2004-2005* (OECD, 2005).

In addition to income taxes, social contributions also reduce workers' take-home pay (and increase the cost of labour to the employer). Table 1.10 summarises the features of social security contributions paid by both employees (Table 1.10*a*) and employers (Table 1.10*b*). As shown in the table, contribution rates can be very high, sometimes exceeding income tax rates markedly (Column 3). Unlike income tax schedule, contribution rates often exhibit a regressive rate structure, that is, marginal rates tend to be lower (often zero) at high earnings levels. This is mainly the result of upper contribution limits which exempt earnings above these limits from further contribution burdens (Column 2) and prevents overall contributions from exceeding a certain maximum (Column 4). Very low earnings are often exempt from social contributions as well (Columns 1 and 2). Low-income earners may also not be fully covered by relevant insurance provisions, however. In some countries, contribution schedules are characterised by so-called lower thresholds (Column 1). Once these are exceeded, the entire amount of earnings becomes subject to the relevant contribution rate, which can cause sudden increases in total tax/contribution burdens and, hence, incentive problems for earnings just above the threshold level. *Taxing Wages 2004-2005* (OECD, 2005) provides a detailed description of social security contributions for each country.

The tax treatment of benefits is summarised in Table 1.11. Benefits may be subject to regular income tax (indicated by "T" in the table) and/or social security contribution ("S") or they may be included in the relevant tax bases but give rise to tax concessions resulting in lower effective rates ("reduced"). In some cases, benefits are taxable but the structure of the tax system is such that a year-long recipient would pay no tax ["T(n)"]. "N" indicates that the specific benefit is not taxable. Benefit income in some countries (*e.g.* UI and UA in Austria and Germany) is calculated in relation to previous net in-work earnings and is therefore not taxable (indicated by an asterisk in Table 1.11). Finally, benefits may be paid in the form of non-wastable tax credits and will, therefore, not be taxable ("tc").

Benefit incomes, and particularly earnings replacement benefits (UI, UA), are treated as taxable income in 18 OECD countries and may be subject to social security contributions. In some countries, although UI or UA are taxable, recipients do not pay income tax as regular tax allowances or credits reduce the taxable income or completely withdraw the income tax respectively ["T(n)"] (France, Ireland, Spain and the United Kingdom).

Table 1.9. **Income taxes, 2005**

All amounts and rates are for a single individual without children

	Central government income tax					Sub-central income tax			Features that can reduce MTRs below statutory rates	Features that can increase MTRs above statutory rates
	Lowest/highest tax band limit (% of AW)	Lowest/highest marginal rate (%)	Tax credit (% of AW)	Tax unit	Other family-related tax provisions	Tax base	Lowest/highest tax band limit (% of AW)	Lowest/highest marginal rate (%)		
Australia	12/156	17/48.5 4 rates	Tax credit for low-income earners (value up to 0.5).	Individual	Tax credit for dependant spouse. Family Tax Benefit (a cash transfer).	—	—	—	—	Phase-out of dependant spouse tax credit as spouse's earnings exceed certain limit. Phase-out of low-income earners' tax credit.
Austria	29/146	38.3/50 3 rates[1]	–	Individual	Tax credits for sole earners and lone parents (increases with number of children).	—	—	—	—	Phase-out of sole-earner credit as spouse's earnings exceed certain limit.
Belgium	16/100	25/50 5 rates	Employment-conditional tax credit (value up to 2).	Individual	Parts of taxable income transferrable to spouse; exemptions/tax credits for children and lone parents.	Central government income tax	—	7 (national average)	—	Phase-out of transferrable "non-earning spouse allowance". In addition, certain family related exemptions are transferrable between spouses.
Canada (Ontario)	0/291	16/29 4 rates	3	Individual	Tax credit for dependants.	Income (= central)	0/171	6.05/11.16 three rates	—	Phase-out of dependant's tax credit as dependant's earnings exceed certain limit.
Czech Republic	17/167	15/32 4 rates	–	Joint (married couple).	Tax allowance for spouse earning not more than a given limit.	—	—	—	—	—
Denmark	12/97	5.48/26.48 3 rates	–	Individual	Unused deductions transferrable to spouse.	Income	2	33.3 (national average)	—	—
Finland	39/176	10.5/33.5 5 rates	–	Individual	—	Income (= central)	2	18.3 (national average)	Earned income tax allowance of 20% of taxable earnings above 11% of AW.	Phase out of earned income tax allowance.

Table 1.9. **Income taxes, 2005** *(cont.)*

All amounts and rates are for a single individual without children

	Central government income tax					Sub-central income tax			Features that can reduce MTRs below statutory rates	Features that can increase MTRs above statutory rates
	Lowest/highest tax band limit (% of AW)	Lowest/highest marginal rate (%)	Tax credit (% of AW)	Tax unit	Other family-related tax provisions	Tax base	Lowest/highest tax band limit (% of AW)	Lowest/highest marginal rate (%)		
France[2]	14/163	6.83/48.09 6 rates	Refundable employment-conditional tax credit (value up to 2).	Joint (family).	—	—	—	—	—	Joint taxation. phase-out of employment-conditional tax credit.
Germany	21/127	8.09/44.31 continuous tax schedule	–	Joint (married couple).	Choice of tfa or child benefit (a refundable tax credit). Higher tfa for lone parents.	—	—	—	—	Joint taxation.
Greece	54/112	15/40 3 rates	–	Individual	Non-refundable tax credit per child.	—	—	—	—	—
Hungary	0/82	18/38 2 rates	Employee tax credit (value up to 7) if gross earnings less than 74.	Individual	Tax credits for children.	—	—	—	—	Phase-out of employee tax credit.
Iceland	0/142	24.75/26.75 2 rates	11	Individual	—	Income (= central)	—	12.98 (national average)	—	Unused portions of the basic tax credit are transferrable between spouses.
Ireland	18/101	20/42 2 rates	10	Joint (married couple).	Additional tax credit for single parents.	—	—	—	Tax reduced to zero for income below 33% of AW (higher limit if children).	Joint taxation. tax reduction phased out above the 33 limit.
Italy	33/441	23/43 4 rates	–	Individual	Tax allowances for dependant family members.	Income	—	1.1 (typical rate)	—	Phase-out of tax credit allowance for dependants as their earnings exceed certain limit.
Japan	21/423	10/37 4 rates	20% of tax liability (max. value 5).	Individual	Tax allowances for dependant family members.	—	—	—	—	—
Korea	21/335	8/35 4 rates	Up to 55% of tax liability (max. value 2).	Individual	Tax allowances for dependant family members and lone parents.	Central government income tax	0	10	—	—

Table 1.9. **Income taxes, 2005** *(cont.)*

All amounts and rates are for a single individual without children

	Central government income tax					Sub-central income tax			Features that can reduce MTRs below statutory rates	Features that can increase MTRs above statutory rates
	Lowest/highest tax band limit (% of AW)	Lowest/highest marginal rate (%)	Tax credit (% of AW)	Tax unit	Other family-related tax provisions	Tax base	Lowest/highest tax band limit (% of AW)	Lowest/highest marginal rate (%)		
Luxembourg	28/87	8/38 16 rates	–	Joint (married couple).	Deductions for lone parents and care expenditure.	—	—	—	For 2nd earner: additional tax allowance if both spouses work.	Joint taxation.
Netherlands	0/134	1.8/52 4 rates	5 plus employment-conditional credit (up to 3). Total cannot exceed sum of income tax and SSC.	Individual	Additional tax credits for children and lone parents (higher for employed parents). Total credits cannot exceed sum of income tax and SSC.	—	—	—	—	—
New Zealand	0/147	15[3]/39 4 rates	Employment-conditional tax credit (up to 2).	Individual	Several tax credits for children (cash transfers). Partly income-related, partly employment-conditional.	—	—	—	—	Phase-out of employment-conditional tax credit.
Norway	0/211	11.8/27.3 3 rates	–	Individual (joint family taxation optional).	—	Income (= central)	17	16.2	—	—
Poland	5/259	19/40 3 rates	2 plus around 94% of public health insurance contributions.	Joint (married couple).	Lone parents benefit from joint taxation (income splitting system) with their children.	—	—	—	—	Joint taxation.
Portugal	24/406	10.5/40 6 rates	2 (non-refundable).	Joint (family).	Additional tax credits for children and lone parents.	—	—	—	—	—
Slovak Republic	41	19 1 rate	–	Individual.	Additional tax allowances for (low-earning) spouse. Refundable tax credits per child (a cash transfer).	—	—	—	Child tax credits are only available for parents earning at least 18% of AW.	Phase-out of tax allowance for low-earning spouse.

Table 1.9. **Income taxes, 2005** *(cont.)*

All amounts and rates are for a single individual without children

	Central government income tax					Sub-central income tax			Features that can reduce MTRs below statutory rates	Features that can increase MTRs above statutory rates
	Lowest/highest tax band limit (% of AW)	Lowest/highest marginal rate (%)	Tax credit (% of AW)	Tax unit	Other family-related tax provisions	Tax base	Lowest/highest tax band limit (% of AW)	Lowest/highest marginal rate (%)		
Spain	34/225	9.06/29.16 5 rates	–	Individual (joint family taxation optional).	Additional tax allowances per child and for childcare.	Income (= central)	0/225	5.94/15.84 five rates	Earners are exempt from tax if income below 55% of AW.	"Spike" in MTR once above exemption limit; phase out of main tax credit adds 5 percentage points to MTR.
Sweden	98/146	20/25 2 rates	87.5% of compulsory social security contributions.	Individual	—	Income (= central)	5	31.06 (national average)	—	—
Switzerland	25/927	0.77/13.2 10 rates[4]	–	Joint (married couple).	Deductions for each child.	Income (= central)	25/313	4.44/28.86 12 rates (city of Zürich)	—	—
Turkey	10/119	15/35 5 rates[5]	–	Individual	—	—	—	—	—	—
United Kindgom	17/110	10/40 3 rates	Employment-conditional tax credit (value up to 8).	Individual	Earnings-related tax credit for families and for each child.	—	—	—	Employment-conditional tax credit results in negative MTRs at the point where entitlement starts.	Phase-out of employment-conditional and family/child tax credits.
United States	26/1066	10/35 6 rates	Employment-conditional tax credit (value up to 1).	Joint (married couple).	Tax exemptions and tax credit for each child; much higher employment-conditional tax credit in case of families.	Income (= central)	2/10	2.5/6.4 (Detroit, Michigan)	Employment-conditional tax credit increases with earnings at low earnings level.	Phase-out of employment-conditional tax credits.

Note: METR = Marginal effective tax rate; tfa = tax free allowance. The tax band limits shown do not account for the tax exemptions available for holiday and end-of-year bonus payments.

1. Lower rates of normally 6% apply to the 13th and 14th monthly salaries.
2. Rates applying to income earned in 2005, to be paid in 2006. The tax band limits shown do not account for the 10% deduction from taxable income or the 20% supplementary deduction (i.e., tax band limits would be higher if these were accounted for).
3. This accounts for the Low Income Rebate (4.5%). The lowest statutory rate is 19.5%.
4. The 10th rate (11.5%, applying to income above 927% of AW) is not the top rate.
5. Plus stamp tax (0.006% of gross earnings).

Source: OECD (2005), *Taxing Wages 2004-2005* and OECD Tax database.

Table 1.10*a*. **Employee social security contributions, 2005**

	Threshold (% of AW)	Lower/upper contrib. limit (% of AW)	Starting/finishing rate (%)	Maximum contribution (% of AW)	Tax deductible	Special features
Australia	–	–	–	–	–	–
Austria	13	-/145	18.06	26.1	yes	–
Belgium	–	–	13.07	–	yes	RE/EX
Canada	–	-/103	1.95/4.95 (3 rates)	6.6	no	SSC tax credit
Czech Republic	–	–	12.50	–	yes	–
Denmark	–	–	8 + lump sum charge (3% of AW)	–	yes	–
Finland	–	–	6.60	–	yes	–
France	–	–	21.36/8.61 (4 rates)	–	yes	–
Germany	–	12/150	20.85/13 (2 rates)	27.4	yes	Phase-in; +0.25% for childless employees
Greece	–	-/285	16.00	45.6	yes	–
Hungary	–	–	8.5/5 (2 rates)	–	no	–
Iceland	– 30	–	4[1] lump sum	–	yes partly	–
Ireland	–	51/-	4/2 (3 rates)	–	no	–
Italy	–	-/371	9.19/10.19 (2 rates)	36.1	yes	–
Japan	–	–	6.967/0.7 (3 rates)	–	yes	–
Korea	–	–	7.105/2.605 (2 rates)	–	yes	–
Luxembourg	–	–	13.05/1 (3 rates)	–	yes	–
Netherlands	–	–	32.6/5.85 (4 rates) + lump sum charge	32.2	partly	EX
New Zealand	–	–	2.11	–	no	–
Norway	8	–	7.8	–	–	Phase-in
Poland	–	–	25.62	–	partly	–
Portugal	–	–	11.00	–	yes	–
Slovak Republic	36	-/239	13.4/12 (2 rates)	30.4	yes	Lump-sum charge below threshold
Spain	35	-/165	6.35	10.5	yes	Lump-sum charge below threshold
Sweden	5	-/110	7.00	7.7	yes	87.5% can be claimed as tax credit, rest is tax deductible
Switzerland	–	–	11.2/10.05 (3 rates) + lump-sum charge[1]	–	yes	Rates are partly age-dependent
Turkey	–	-/58	15.00	8.7	yes	Lump-sum charge if wage < 38% of APW
United Kindgom	–	17/-	11/1 (2 rates)	–	no	RE
United States	–	–	7.65/1.45 (2 rates)	–	no	–

Note: Thresholds are earnings limits below which no contributions are payable, while all earnings are subject to contributions once earnings exceed this limit. Where entries appear on more than one line, they apply to different types of contributions, all of which are mandatory. EX: Extra payments for some employees; RE: Rebate for some employees.

1. Mandatory contribution to a privately-managed insurance

Source: OECD (2005), *Taxing Wages 2004-2005* and OECD Tax database.

Table 1.10*b*. **Employer social security contributions and payroll taxes, 2005**

	Threshold (% of AW)	Lower/upper contrib. limit (% of AW)	Starting/finishing rate (%)	Maximum contribution (% of AW)	Taxable	Special features
Australia	–	–	15	–	no	–
Austria	–	–	28.86/7.5 (two rates)	–	no	–
Belgium	–	–	34.69	–	no	RE
Canada	–	-/103	2.73/4.95 (three rates)	7.3	no	–
Czech Republic	–	–	35	–	–	–
Denmark	–	–	lump sum charge (0.6% of AW)	–	no	–
Finland	–	–	24	–	no	–
France	–	–	45.83/27.48 (four rates)	–	no	RE
Germany	–	20.85/13 (2 rates)	20.85/13 (two rates)	27.4	no	Higher (25%) rate if earnings < 12% of AW
Greece	–	-/285	28.06	80.0	no	–
Hungary	–	–	32	–	no	RE
Iceland	–	–	6-7[1] 5.73	–	no	–
Ireland	–	–	8.5/10.75 (two rates)	–	no	–
Italy	–	-/371	33.08	122.7	no	–
Japan	–	–	6.967/1.05 (three rates)	–	no	–
Korea	–	–	8.975/4.475 (two rates)	–	no	–
Luxembourg	–	209	14.02	29.3	no	–
Netherlands	–	-/113	15.75/10.9 (three rates)	17.2	partly	EX
New Zealand	–	–	0.9[1]	–	no	–
Norway	–	–	13.1/25.6 (two rates)	–	no	RE
Poland	–	–	20.43	–	no	–
Portugal	–	–	23.75	–	no	–
Slovak Republic	36	-/239	35.6/34.2 (two rates)	83.5	no	Lump-sum charge below threshold
Spain	35	-/165	30.6	50.5	no	Lump-sum charge below threshold
Sweden	–	–	32.46	–	no	–
Switzerland	–	–	11.2/10.05 (three rates)	–	no	Rates are partly age-dependent
Turkey	–	-/58	21.5	12.5	no	Lump-sum charge if wage < 38% of APW
United Kindgom	–	–	12.8	–	no	RE
United States	–	–	7.65/1.45 (two rates)	–	no	–

Note: Thresholds are earnings limits below which no contributions are payable, while all earnings are subject to contributions once earnings exceed this limit. Where entries appear on more than one line, they apply to different types of contributions, all of which are mandatory. EX: Extra payments for some employees; RE: Rebate for some employees.

1. Mandatory contribution to a privately-managed insurance

Source: OECD (2005), *Taxing Wages 2004-2005* and OECD Tax database.

Special tax allowances related to benefits exist in Australia and Belgium. In the latest, the wastable tax credits "beneficiary tax offset" is generally available to recipients of taxable income support payments that are classified as benefits. In Belgium, the wastable tax credit, *Réduction d'impôt sur les revenus de remplacement* (tax exemption on replacement

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Table 1.11. **Tax treatment of benefits, 2005**

	Unemployment insurance	Unemployment assistance	Family benefits	Lone-parent benefits[1]	Housing benefits	Social assistance
	[1]	[2]	[3]	[4]	[5]	[6]
Australia	—	T(n)S(n)	N	T(n)S(n)	N	—
Austria	*	*	N	—	N	N
Belgium	T(n)	—	N	—	—	N
Canada	T	—	—	—	—	N
Czech Republic	N	N	N	N	N	N
Denmark	TS (reduced)	—	N	N	N	TS (reduced)
Finland	TS (reduced)	TS(reduced)	N	N	N	N
France[2]	TS (reduced)	T(n)S(n)	N	N	N	N
Germany	*	*	tc	—	N	—
Greece	N	N	N[3]	—	N	—
Hungary	TS (reduced)	N	N	N	N	N
Iceland	TS	—	N	TS	N	TS
Ireland	T(n)	N	N	T(n)	N	N
Italy	TS (reduced)	—	N	—	—	—
Japan	N	—	N	N	—	N
Korea	N	—	—	N	—	N
Luxembourg	TS (reduced)	—	N	—	TS[4]	TS[4]
Netherlands	TS	—	N	—	N	*
New Zealand	—	TS	N	T	N	—
Norway	TS	—	N	T[5]	N	N
Poland	T	—	N	N	N	N
Portugal	N	N	N	—	—	N
Slovak Republic	N	—	N	—	—	N
Spain	TS (reduced)	T(n)	N	—	—	T(n)
Sweden	TS	TS	N	N	N	N
Switzerland	TS (reduced)	—	T	—	—	N
Turkey	N	—	—	—	—	—
United Kingdom	T(n)S(n)	TS	N	—	N	N
United States	T	—	N	—	N	N

Legend:

T Taxes are payable.
S Social security contributions (SSC) are payable.
N Neither taxes nor SSC are levied.
— No specific scheme or no information available.
* Benefit is a proportion of after tax income (and thus not taxable).
T(n) or S(n) Long-term recipients will not pay the taxes or SSC as the credits, allowances or zero rate bands exceed the benefit level.
(reduced) A reduced rate is payable for beneficiaries.
tc Non-wastable tax credit.

1. Only countries that provide family benefit supplement or specific non-means-tested benefits.
2. Family and housing benefits are not taxable as such but are subject to an obligatory contribution of 0.5% to a social fund (CRDS: *Contribution au remboursement de la dette sociale*).
3. The general scheme is not taxable but the employers' benefit is added to gross income before tax. Also the benefits for the 3rd and 4th child are taxed at 10% separately from other income.
4. Full payment of social security contributions for the benefit (*indemnité d'insertion*) but only the sickness contribution for the supplement (*complément*).
5. The transitional allowance is taxable as pension income but the childcare benefits are not.

Source: OECD Tax-Benefit Models.

income), reduces or withdraws the income tax that are levied on UI and UA. In Ireland UI is partly taxable and the linked dependant child element is disregarded.

In 15 countries social security contributions are deducted from earnings replacement benefits. However the contributions are often lower than those paid by workers by reason of reduced contribution rates (France, Luxembourg, Spain and Switzerland) or no payment of some social security elements (Denmark, Finland, Hungary). For instance, in Finland UI/

UA recipients contribute to health insurance but not to pension and unemployment insurances. By contrast, in Hungary, UI recipients do not pay health contributions, but pension insurance contributions.

The other benefits, such as family, lone-parent and housing benefits, as well as social assistance, that are not defined as earnings replacement benefits may also be subject to taxation. In four countries, income tax is levied on social assistance benefits (Denmark, Iceland, Luxembourg and Spain). Beneficiaries also pay full or reduced social contributions except in Spain. In the latter country, even though SA is taxable, the benefit amount is lower than applied tax allowances. Therefore recipients do not pay any income tax. FB and HB are not taxable in most countries, except in Switzerland and Luxembourg. Lone-parent benefits as FB supplement or specific non-means-tested benefits are in general not taxable either, except in Australia, Iceland, Ireland and Norway. However, in Australia and Ireland tax credits annul the income taxes.

3. Interactions between tax-benefit instruments

Analysing interactions between different benefits, as well as their tax treatment, are not always obvious but can have important consequences for the efficacy of social policy measures and, especially, policy reforms. For instance, changes in benefit levels will be felt less acutely if benefit recipients have to pay taxes on them. Similarly, recipients of means-tested benefits may not feel the full effect of reforms, be they tax changes or adjustments of other benefits, as the means-test offsets these changes by maintaining recipients' net incomes at a specified level.

Unemployment benefits are taxable income in most countries. Insurance-type benefits that primarily depend on previous earnings are usually not affected by any income received through other benefits. Unemployment benefits are, however, often included as income in the means-tests used for other benefits. Social assistance (SA) typically takes into account all types of income, including most other benefits (Table 1.3). As a result, the effects of policy reforms making family benefits for example more or less generous can be very limited for families receiving SA unless relevant SA rules are changed in parallel. Measures, such as in-work benefits, specifically aimed at low-income households have to be tailored around other relevant benefit schemes in order to maximise their effectiveness (*e.g.* by targeting entitlements to incomes above maximum SA levels or including them in the SA means test and, at the same time, making them sufficiently generous to lift recipients above the income level guaranteed by SA).

However, *not* linking different tax or benefit instruments can be problematic as well. Means tests that ignore the effects of other taxes or benefits on net incomes may result in overly abrupt, and perhaps unintended, benefit withdrawals. Multiple means-tested benefits can lead to situations of extremely distorted work incentives and the same is true for means tests that assess incomes without deducting taxes. SA recipients in particular can sometimes lose income as a result of increased work efforts, when taxes or contributions paid on any additional earnings are not fully taken into account in the means test. For instance, Icelandic SA amounts are reduced by 100% of pre-tax income. As a result, higher gross earnings can *reduce* disposable income for families receiving SA since the tax payable on any earnings adds to the 100% benefit withdrawal rate and causes marginal effective tax rates in excess of 100%. More generally, when different benefits are withdrawn

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independently, benefit phase-out rates for recipients of more than one income-related benefit are cumulated resulting in marginal effective tax rates that can exceed 100%.

Another type of interaction between different elements of the tax-benefit system is "passporting", *i.e.* when benefits of a given type give rise to other benefit entitlements or tax reductions. Examples of "passporting" can be found in several countries, where eligibility to housing benefits (HB) is conditional upon receiving SA or is in fact integrated into the SA programme (Canada, Japan, Korea, Luxembourg and the Slovak Republic) (Table 1.5). In Canada, certain childcare benefits are targeted exclusively towards SA recipients. A result of these mechanisms is that an expiration of SA eligibility can cause income reductions in excess of the SA amount. As shown in Section 2, benefits other than SA give also rise to special tax allowances. Thus some countries tend to reduce tax burdens of beneficiary households by means of adjusted tax schedules, tax allowances or reduced social security contributions. For instance, in Norway lone parents receiving the "transitional benefit" (lone-parent benefits) are subject to a special tax regulation, the "tax limitation rule". In Australia, all recipients of taxable benefits have their income reduced by the "beneficiary offset", a wastable tax credit.

The relevance of interactions between different types of taxes and benefits is most obvious when considering the situation of benefit recipients starting a new job or changing their working hours. UI, UA and SA benefits are intended to replace the absence of other sources of income and so are conditional upon the recipient not working. Other benefits discussed above are means-tested and will generally also be reduced when the beneficiary starts to work. Recipients of these benefits may find that the immediate financial consequences of starting to work are complex, with entitlement to some benefits lost and the amount of other benefits reduced (Chapter 3).

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Chapter 2

Tax Burdens, Benefit Entitlements and Income Adequacy

Introduction

What levels of household income do the tax-benefit rules discussed in the previous chapter translate to? And how important are individual tax-benefit instruments in determining household resources? This chapter compares tax burdens and benefit entitlements for a range of family situations and earnings levels to compare the resources available to families in different circumstances. The focus is on the lower end of the wage scale – below and up to average earnings – where work incentive problems typically are most relevant.

The first section looks at the tax-benefit position of employees. It considers average earners and their families who either work full-time or part-time. Section 2 analyses the net income position of individuals without any employment incomes: those who are eligible to unemployment benefit and those who are not. Finally, Section 3 examines net income levels of social assistance recipients as well as minimum wage earners with regard to alternative low-income ("poverty") cut-off lines.

The calculations are performed using the OECD's tax-benefit models (*www.oecd.org/els/social/workincentives*). These models are built using detailed country-by-country information on legal tax and benefit rules. They are used to quantify the combined effects of taxes and public social benefits on household income. A detailed methodological explanation including a discussion of relevant assumptions for these models is provided in Annex A. Annex B explains how versions of the models may be obtained by those interested in using them for their own purposes.

Tax and benefit amounts depend on gross earnings, the employment situation and family characteristics. In order to capture how personal and household characteristics affect tax liabilities, benefit entitlements and household incomes, indicators are presented in this publication for a set of six different family types. For each of these family types, the tax-benefit models are used to evaluate tax burdens, benefit entitlements and net incomes at different levels of gross earnings:

- Households without children:
  - Single adult.
  - One-earner adult couple.
  - Two-earner adult couple.
- Households with two children aged four and six:
  - Single adult (lone parent).
  - One-earner adult couple.
  - Two-earner adult couple.

Adults are assumed to be of age 40 with a full employment history since age 18 in most of the results presented in this publication. These family constellations will be more or less "typical" across countries. For comparisons, it is important to bear in mind that population

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structures are different in each country. The relevance of a particular household situation will therefore vary between countries (for a discussion of the representativeness of these household typologies, see Immervoll *et al.*, 2004). Note that other household types, and indeed many other assumptions, can be varied by users of the models.

The indicators derived from the tax-benefit models provide a useful complement to population-based approaches such as incidence studies based on micro-data alone or microsimulation models capable of simulating the effects of fiscal and social policy instruments on a sample of actual households. By computing tax and benefit amounts using existing policy rules, calculations based on hypothetical households help us understand the features of these instruments. And by repeating these calculations for a number of different household situations, they allow us to assess under which circumstances (*e.g.* family situation or income level) each of these features becomes relevant.

1. Net incomes in employment: the tax-benefit position of employees and their families

A first issue concerns the net income position of individuals in work and to which degree net taxes (*i.e.* income taxes plus employees' social security contributions minus any cash benefits) contribute to the final income level. This is analysed in Figure 2.1, which shows the tax-benefit position and net incomes for the six family types described above. Panel A shows results for average earners (earnings at 100% of AW), while Panel B refers to lower earnings, namely 33% of AW. Wage rates are equal to AW hourly wages so that persons earning less than 100% AW are employed part-time.

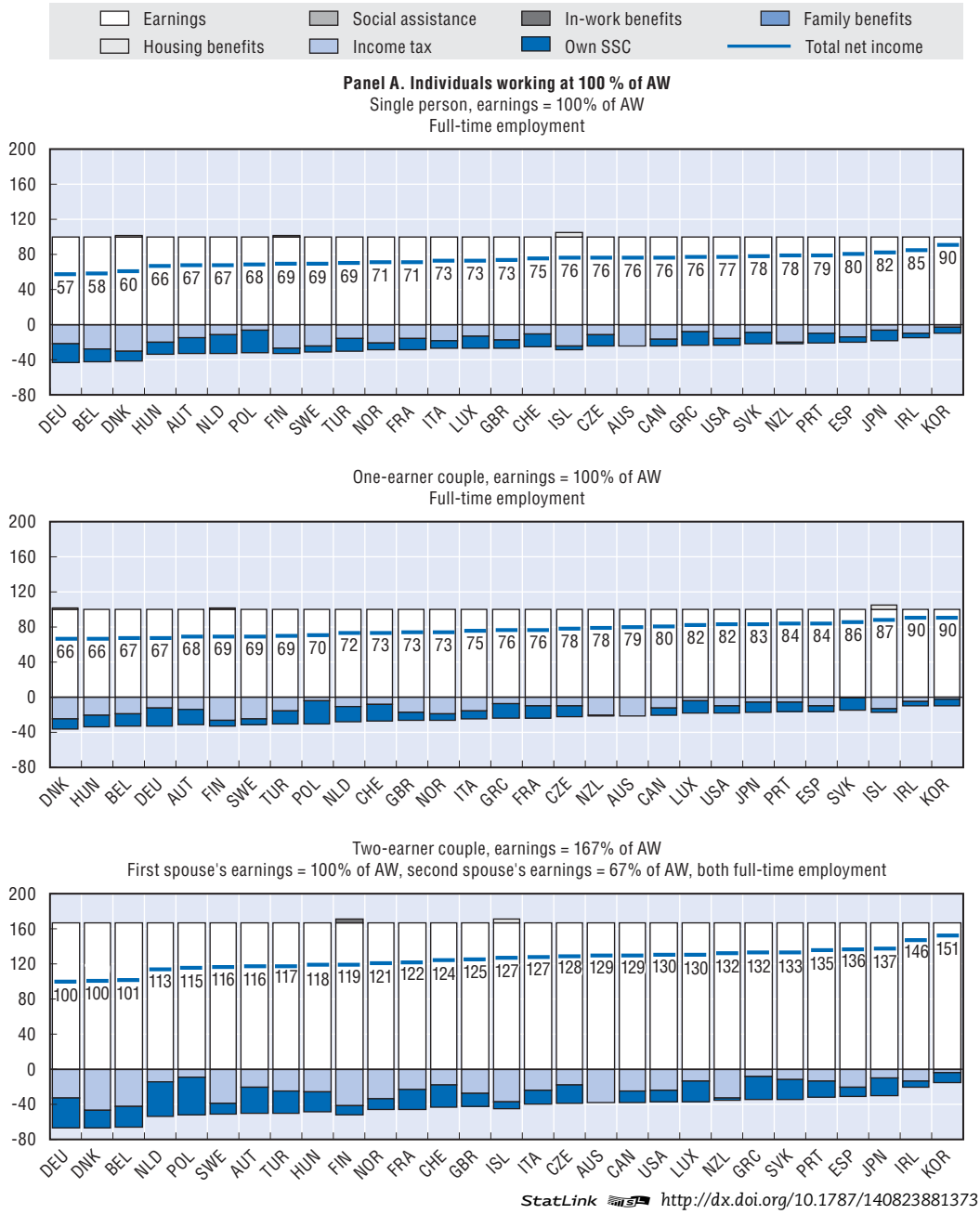
All incomes in Figure 2.1 are shown as percentages of AW and countries are displayed in ascending order of net income relative to gross earnings. Results are consistent with those presented in the OECD series *Taxing Wages* (OECD, 2007) but differ due to differences in scope. First, and most important, calculations presented here take account of a wide range of benefits that are particularly relevant for low-income households. Secondly, the focus of the present report is specifically on household resources available for consumption in the current period. As a result, certain compulsory payments, such as private old-age pension contributions in Denmark and Iceland, are taken into account, even though they do not correspond to the formal definition of a "tax". In contrast to OECD (2007) they are here taken to reduce calculated net income measures.

Considering first the tax-benefit position of *average wage workers* (Panel A), it turns out that a number of countries display consistently high net tax burdens regardless of the family situation, in particular Germany, Belgium and Denmark (with the notable exception of single parents in the latter country). On the other hand, Ireland and Korea have low taxes for average wage workers in various family situations.

For a single worker at average wage, relative net incomes are around 73% of gross earnings on average, ranging from 57% in Germany to 90% in Korea. These levels tend to be higher for one-earner couples with the same amount of gross earnings, particularly in Iceland, Germany, Luxembourg, Belgium and the Slovak Republic (between 8 to 11 percentage points higher). This is mainly a result of tax concessions available to couples; at this earnings level, benefits are generally not available for couples without children and therefore play a modest role and only in three countries.[1]

Figure 2.1. **Tax-benefit position of employees, 2005**

Percentage of average worker wage (AW)[1]



StatLink http://dx.doi.org/10.1787/140823881373

1. APW (average production worker wage) for Ireland, Korea and Turkey.

Source: OECD Tax-Benefit Models.

For married couples with spouses earning 100% and 67% of the AW, net tax burdens are, relative to household gross earnings, generally similar to those of single-earner couples: on average, they amount to some 26% of gross earnings. In a purely individual-based progressive tax system, the tax burden for a two-earner couple would, relative to gross earnings, be the same as for a one-earner couple if both spouses' earnings are the same and would be lower if, as is the case here, the second spouse's earnings are lower. However, in countries with joint tax systems or sizable "joint elements", such as tax

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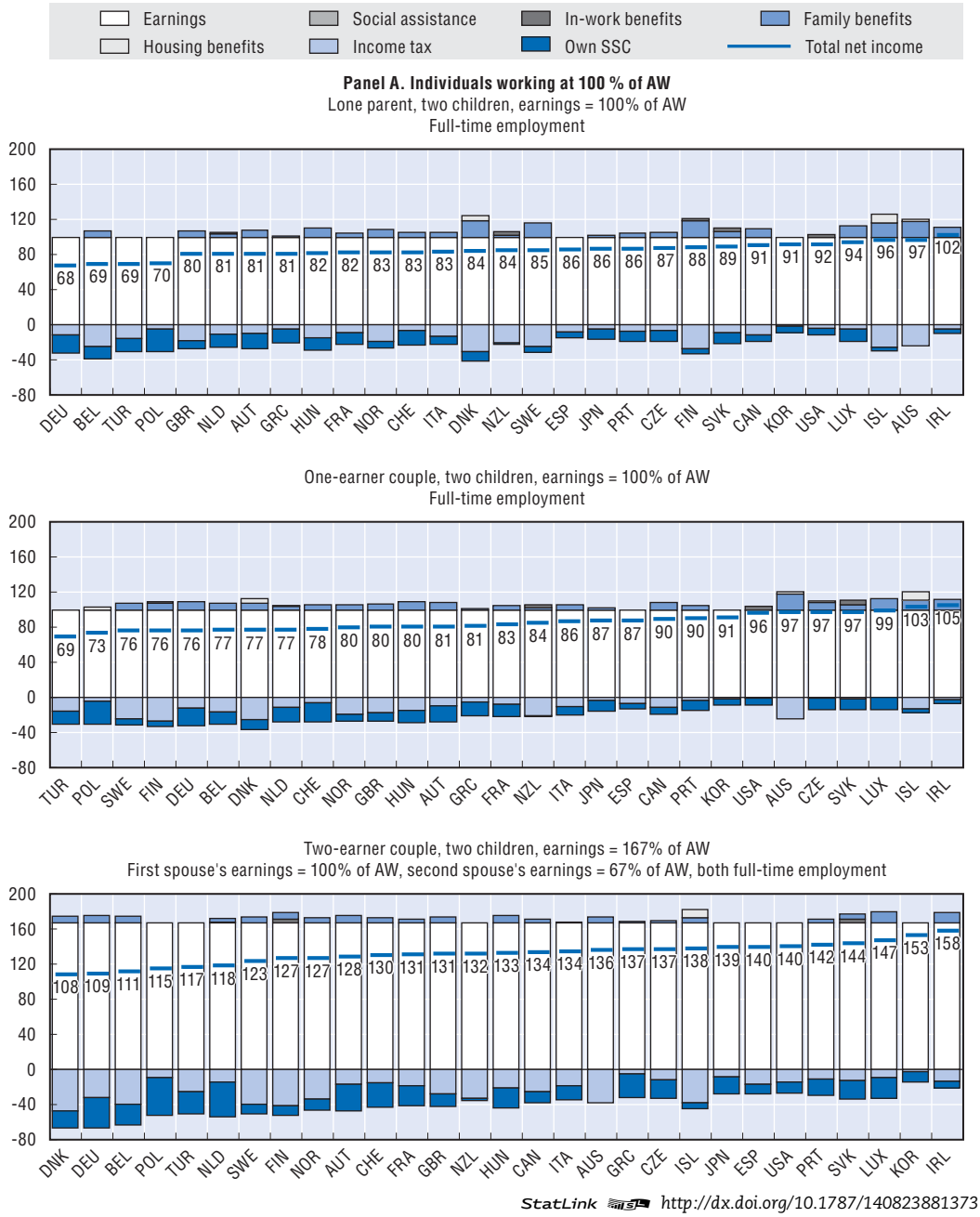
Figure 2.1. **Tax-benefit position of employees, 2005** *(cont.)*

Percentage of average worker wage (AW)[1]



StatLink http://dx.doi.org/10.1787/140823881373

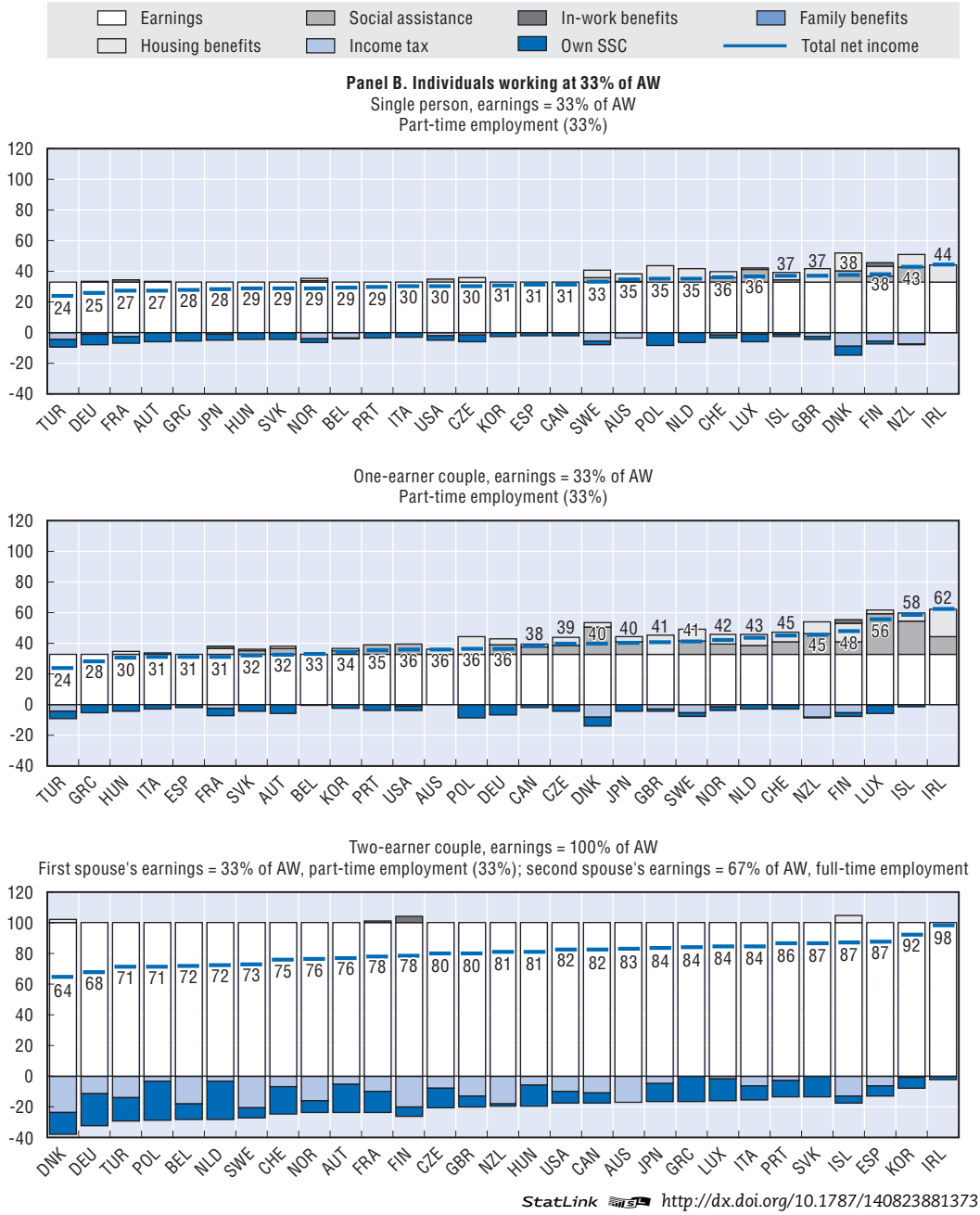
1. APW (average production worker wage) for Ireland, Korea and Turkey.

Source: OECD Tax-Benefit Models.

allowances that are transferable between spouses, income taxes depend on gross income of the family or couple as a whole. In progressive tax systems that are not purely individual, relative tax burdens therefore tend to be higher for two-earner couples. For instance, married couples with one spouse earning an average wage face net tax burdens of 33% in Germany, 18% in the United States and 10% in Ireland while these increase to 40%, 22% and 13%, respectively, for two-earner married couples with total earnings at 167% of AW.

Figure 2.1. **Tax-benefit position of employees, 2005** *(cont.)*

Percentage of average worker wage (AW)[1]



StatLink http://dx.doi.org/10.1787/140823881373

1. APW (average production worker wage) for Ireland, Korea and Turkey.

Source: OECD Tax-Benefit Models.

Families with children typically have substantially higher net incomes than childless families due to a combination of family benefits and income tax concessions. On OECD average, the net tax burden amounts to some 15% for lone parents and one-earner couples with children and to 21% for two-earner couples with children. In the case of one-earner couples, this causes net incomes to exceed gross earnings in two countries (Iceland and Ireland). Specific benefits or tax concessions are also available to lone parents. As a result, household net incomes of working lone parents with average earnings can, in absolute

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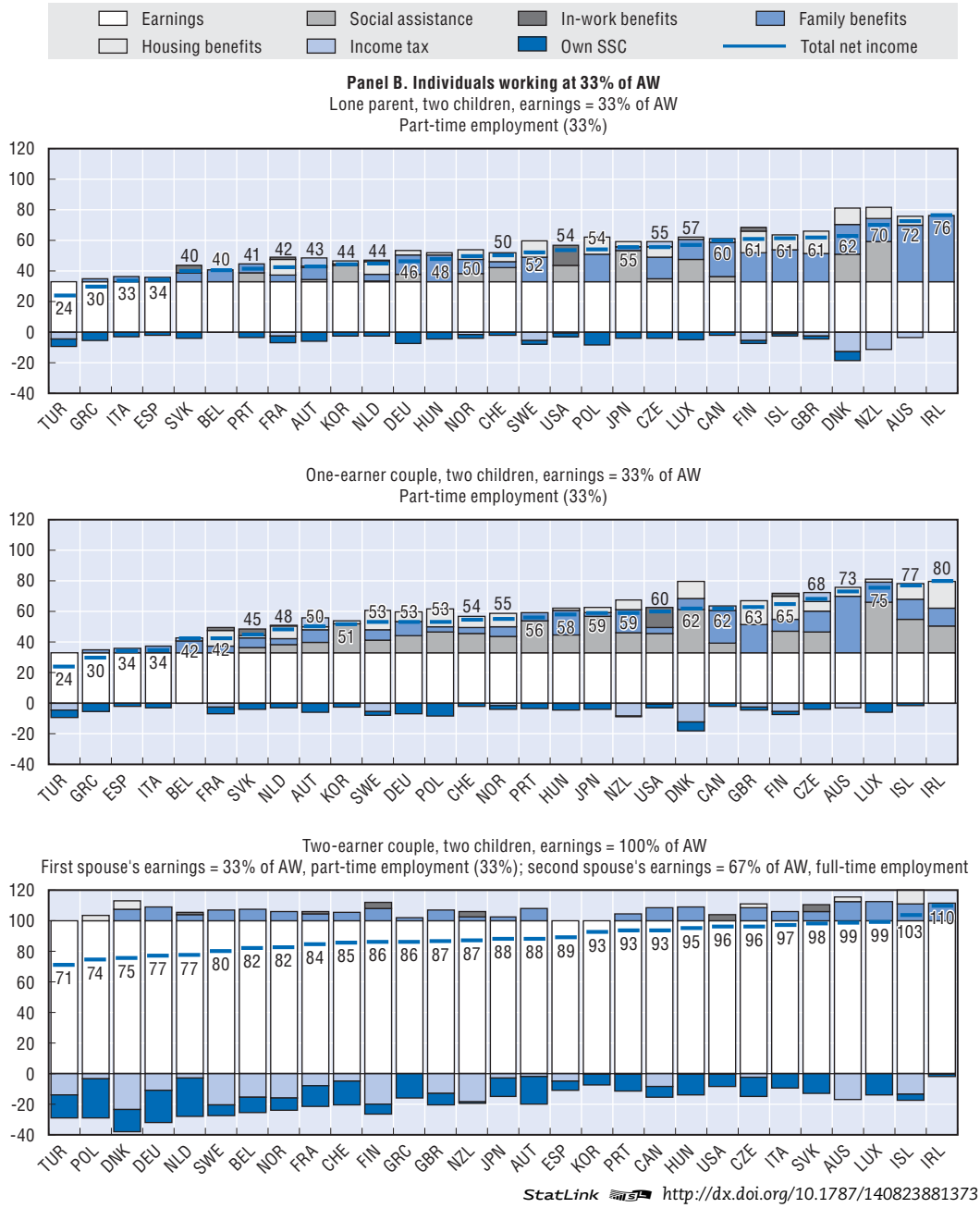
Figure 2.1. **Tax-benefit position of employees, 2005** *(cont.)*

Percentage of average worker wage (AW)[1]



StatLink http://dx.doi.org/10.1787/140823881373

1. APW (average production worker wage) for Ireland, Korea and Turkey.

Source: OECD Tax-Benefit Models.

terms, be higher than for otherwise similar one-earner married couples with children. This is the case in the United Kingdom, Canada, Hungary, Norway, the Netherlands, Switzerland and especially in three of the Nordic countries, Finland, Sweden and Denmark.

Turning to *lower earnings levels* (33% of AW) in Panel B of Figure 2.1, the impact of taxes and especially benefits on household incomes is very different both in absolute terms and when compared across countries. For all six family constellations considered here, Ireland displays the highest net income levels, while Turkey displays the lowest (except in the case

of two-earner couples). As was the case for average earners, net incomes tend to be substantially higher for families with children: on OECD average 50% and 55% of AW for lone parents and one-earner couples with children, compared to 32% and 39% for single persons and one-earner couples without children.

In the case of a single person with employment income of 33% of AW, net taxes are negative in 11 OECD countries (*i.e.* benefits are worth more than the taxes the family has to pay), and this increases to 20 countries in the case of a one-earner couple on lower earnings. While taxes and contributions are often of a similar magnitude in the remaining countries, a combination of social assistance, housing and in-work benefits causes net incomes to exceed gross earnings. An interesting case is Denmark, where high levels of taxes are more than compensated by means-tested social assistance and housing benefits.

For low-earning families with children, social benefits can be the main source of income, and this is indeed the case for about one third of the countries in the case of one-earner couples and in one fifth in the case of lone parents. In-work benefits are sometimes targeted at families with children and amounts may vary considerably depending on family income and working hours. For the earnings level considered here, in-work benefits are especially important in the United States, and on a more modest scale in the Slovak Republic, France, the Netherlands and Finland. The United Kingdom also operates a sizable in-work benefit programme. But benefits are conditional on working at least 16 hours per week, so that the part-time worker shown in Panel B of Figure 2.1 is not entitled.

For a number of reasons, the amounts shown for means-tested benefits should be considered upper-bound estimates. First, the calculations are based on the assumption that households do not have assets that would disqualify them from receiving means-tested benefits such as social assistance. Also, people entitled to means-tested benefits may in fact not receive them (see endnote 5). Finally, while housing benefits frequently provide the largest part of benefit income, they are computed for rental expenses equal to 20% of AW or the applicable ceiling of "allowable" rental expenses, whichever is lower. This may well exceed actual housing costs, particularly for low-income households.

2. Net incomes during unemployment: tax-benefit position of unemployed persons and their families

A second issue concerns the net income position of individuals out of work. Resources of households without any employment incomes will typically be determined by earnings replacement benefits such as unemployment compensation or, similar to the low-earnings situations shown in Figure 2.1 above, by means-tested transfers such as social assistance. The tax-benefit position of unemployed individuals is summarised in Figure 2.2. Again, all incomes are shown as percentages of AW and countries are displayed in ascending order of net income relative to AW gross earnings.

The net income position of persons out of work will depend firstly on whether the person is entitled to unemployment benefit. Where this is the case, benefit amounts may further depend on the duration of unemployment as well as on the level of previous in-work earnings. Figure 2.2 therefore considers three different situations: persons entitled to unemployment benefit who had previous earnings of 100% of AW (Panel A); persons entitled to unemployment benefit who had previous earnings of 67% of AW (Panel B); and persons who are not entitled to receiving unemployment benefit (Panel C). All results refer to a 40-year-old unemployed individual during the *initial* period of unemployment,

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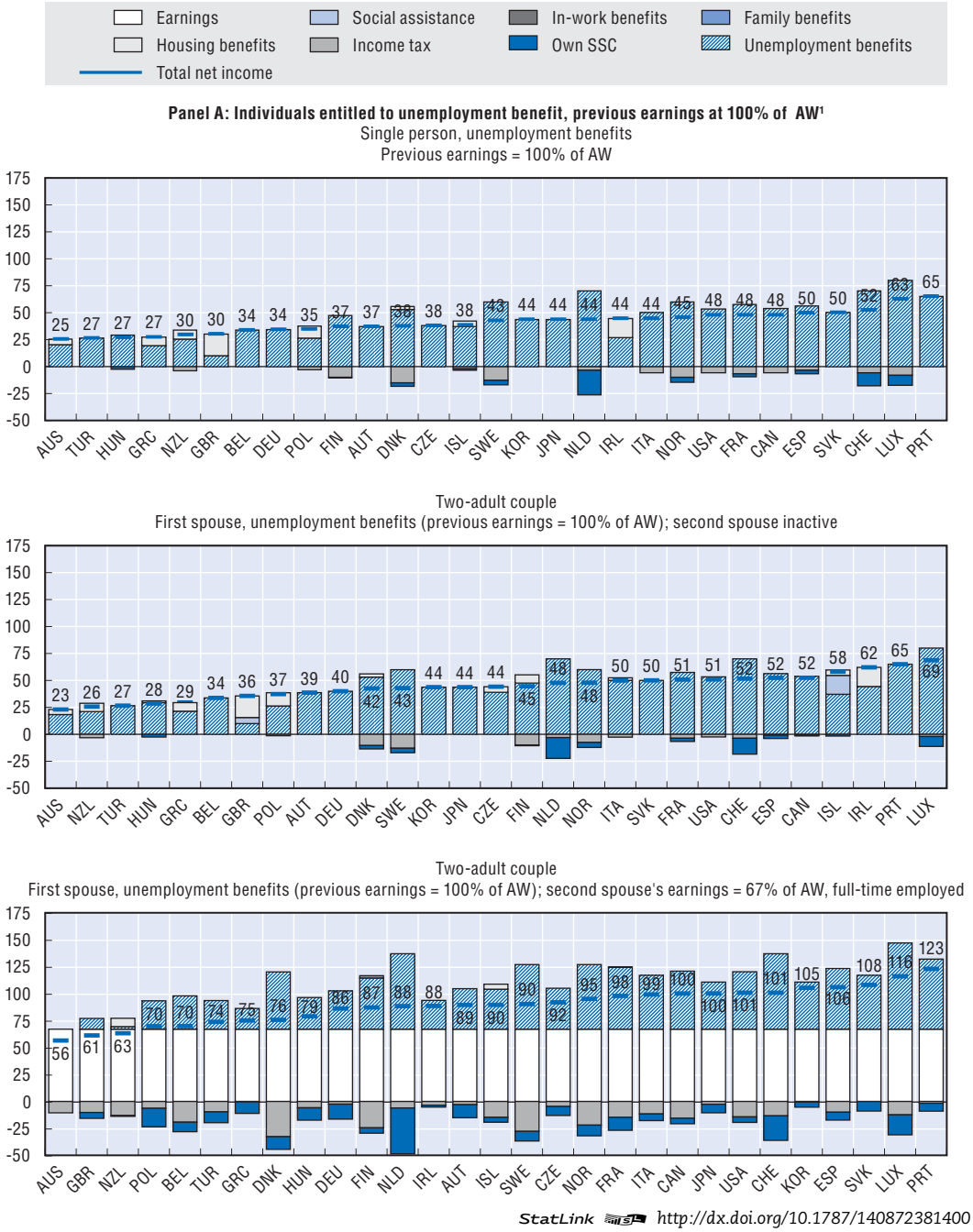
Figure 2.2. **Tax-benefit position of unemployed individuals, 2005**



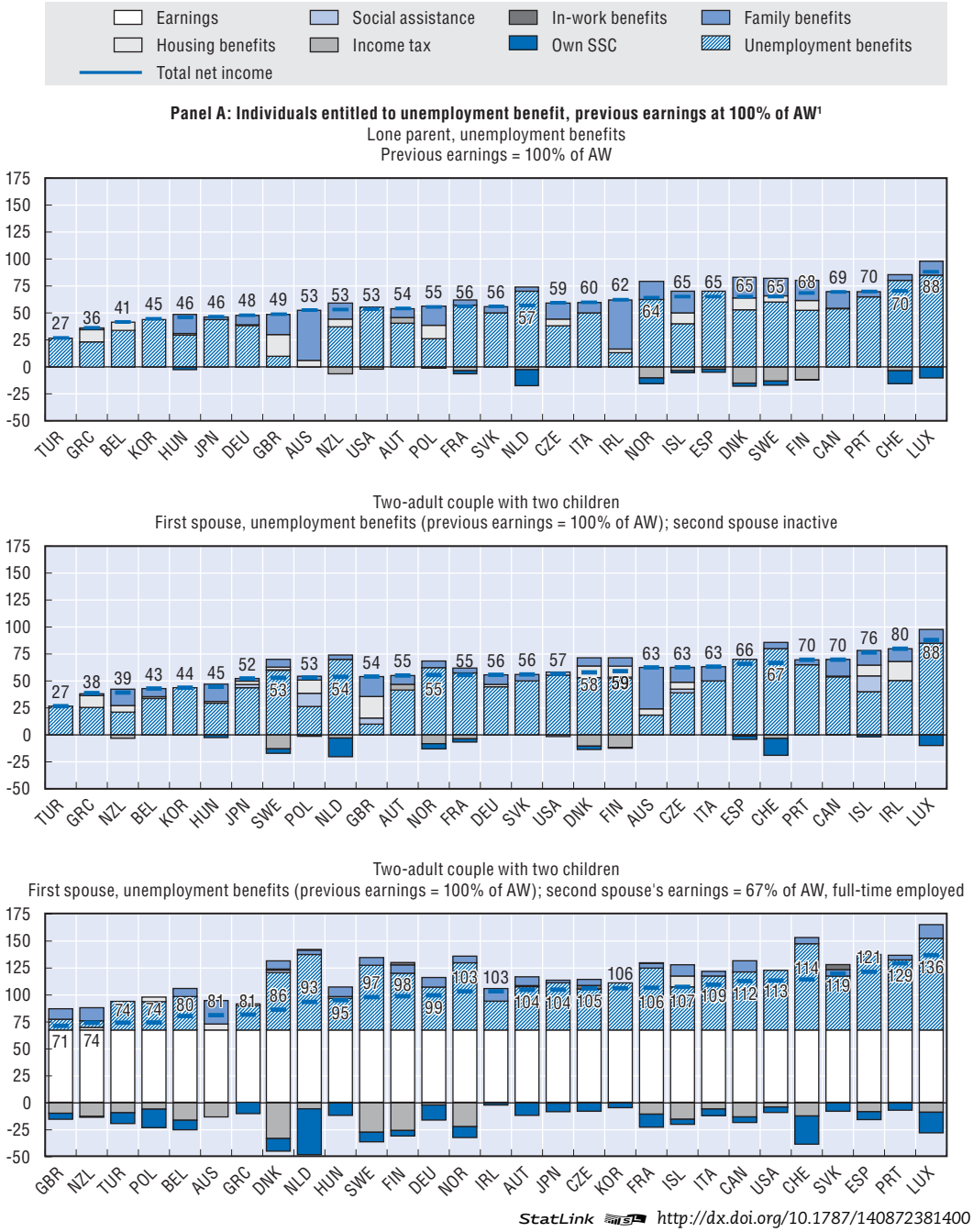
StatLink http://dx.doi.org/10.1787/140872381400

1. APW (average production worker wage) for Ireland and Korea.

Source: OECD Tax-Benefit Models.

following any benefit waiting period and assuming that they fully comply with all relevant work availability and job-search requirements.[2] "Inactive" spouses are assumed to be outside the labour force and therefore do not receive benefits that are tied to work availability or job-search. To be able to compare maximum benefit entitlements across countries, we consider long and un-interrupted work histories (details are provided in Annex A). For the same reason, it is assumed that persons who are not entitled to unemployment benefit are entitled to social assistance benefits, *i.e.* that they meet other

Figure 2.2. **Tax-benefit position of unemployed individuals, 2005** *(cont.)*



StatLink http://dx.doi.org/10.1787/140872381400

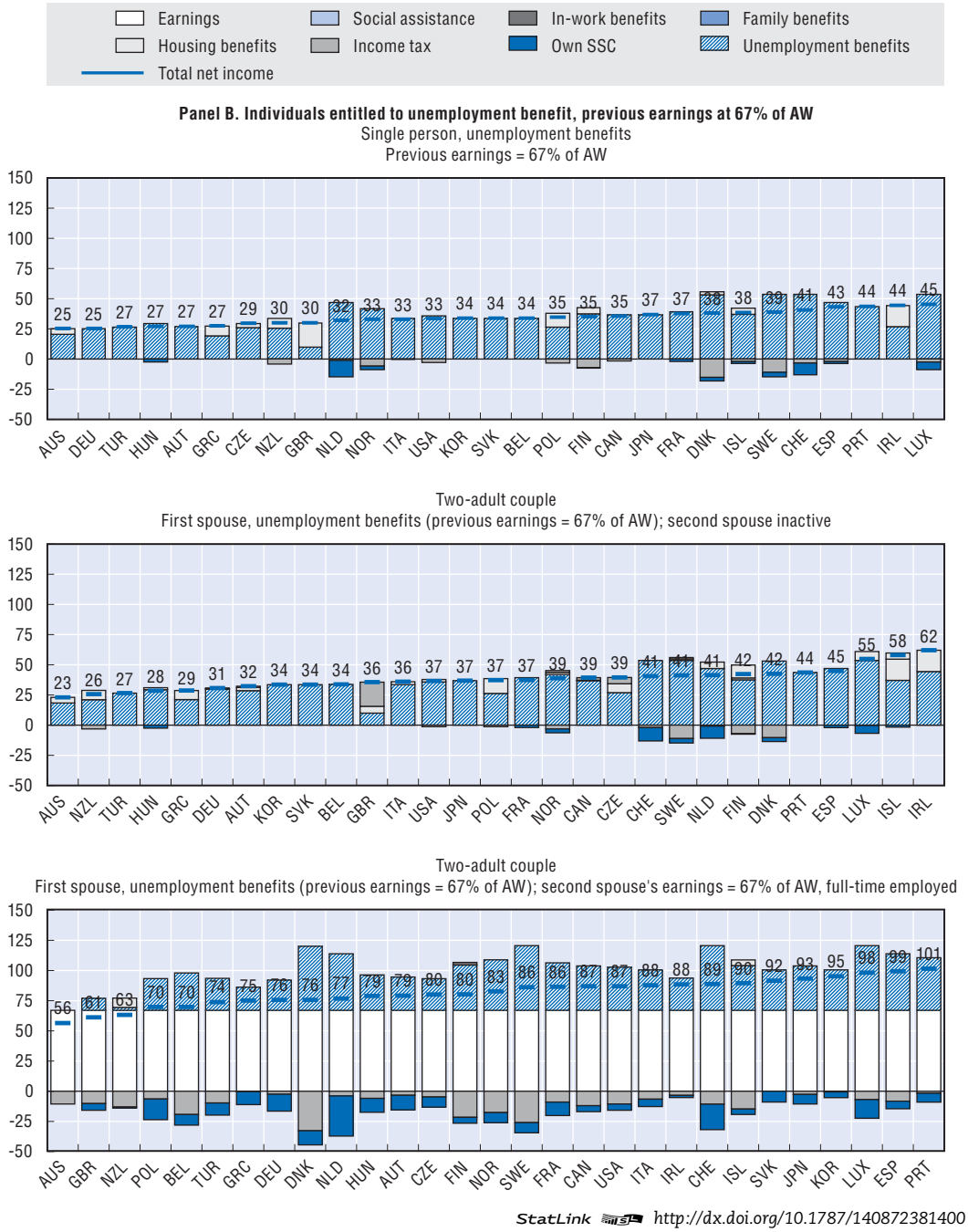
1. APW (average production worker wage) for Ireland and Korea.

Source: OECD Tax-Benefit Models.

relevant eligibility criteria, such as wealth and asset tests. As for all results presented in this report, incomes are computed for a particular month – here the initial period of unemployment following any waiting period – and then annualised.

Net incomes of unemployment benefit recipients who previously earned the average wage (100% AW) (Panel A) vary considerably more across countries than those of employees. For a single worker with previous average earnings, net incomes during the initial phase of unemployment range from 25%-27% of AW in Australia, Turkey, Hungary

Figure 2.2. **Tax-benefit position of unemployed individuals, 2005** *(cont.)*



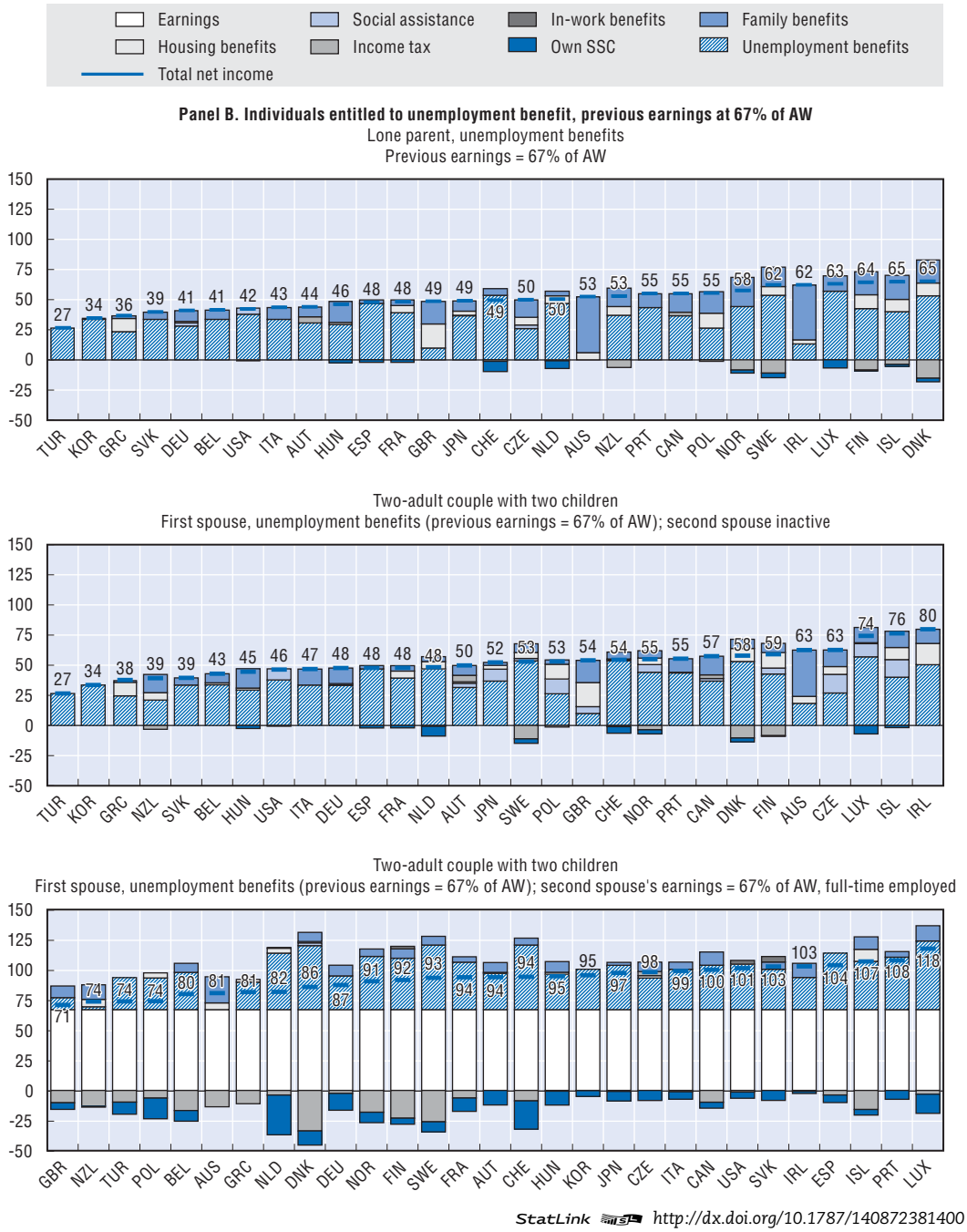
StatLink http://dx.doi.org/10.1787/140872381400

1. APW (average production worker wage) for Ireland and Korea.

Source: OECD Tax-Benefit Models.

and Greece to 63%-65% in Luxembourg and Portugal. The values of unemployment benefits (ranging from 10%-20% of previous AW earnings in the United Kingdom to 70%-80% in the Netherlands, Switzerland and Luxembourg) vary even more but these differences are smoothed to some extent by other transfer payments and the tax treatment of unemployment benefits (for instance, unemployment benefits are taxed in the latter three countries). Other benefits, particularly housing benefits, may top up the income levels of

Figure 2.2. **Tax-benefit position of unemployed individuals, 2005** *(cont.)*



StatLink http://dx.doi.org/10.1787/140872381400

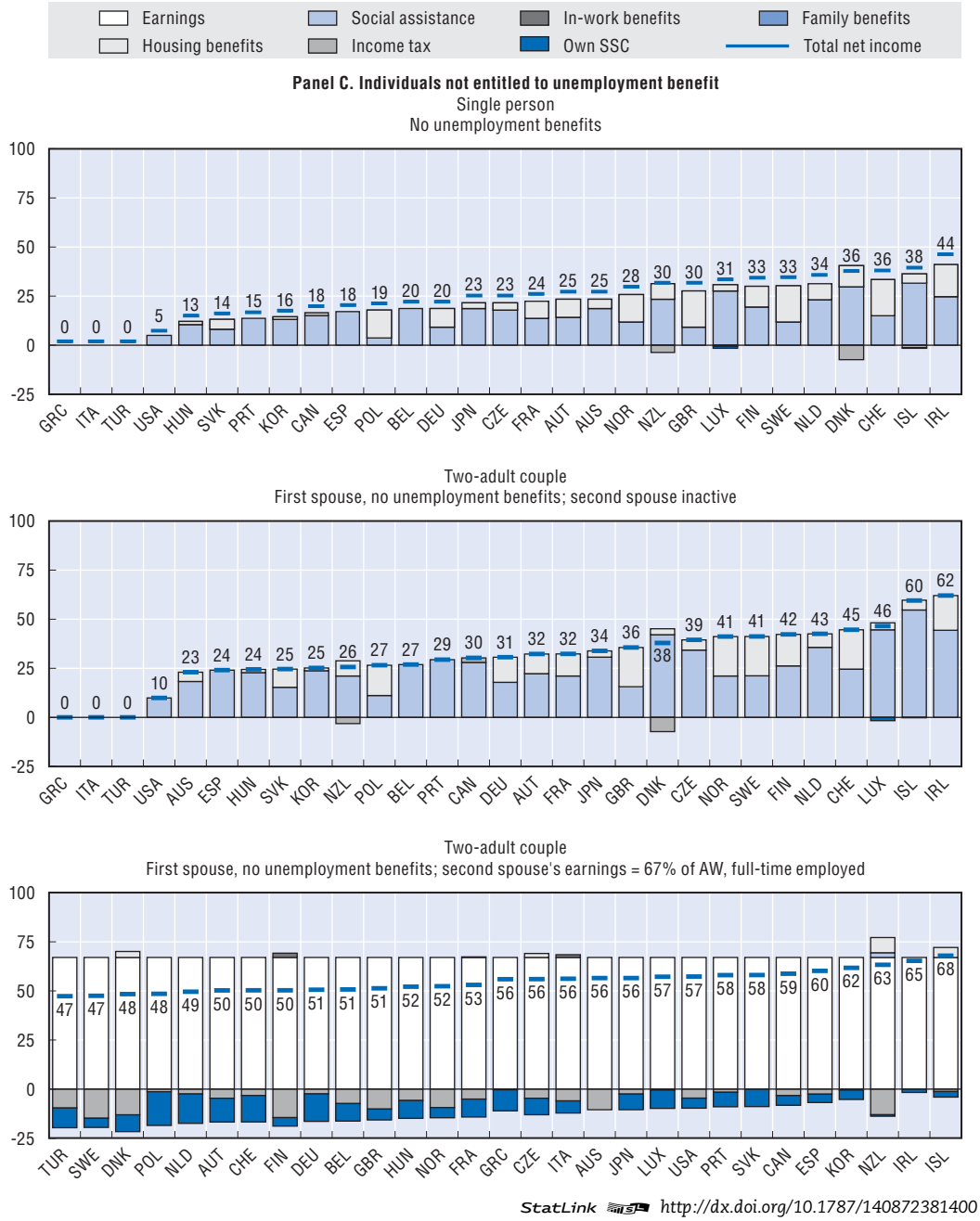
1. APW (average production worker wage) for Ireland and Korea.

Source: OECD Tax-Benefit Models.

unemployment benefit recipients. They play a prominent role in some English speaking countries (but not in North America), Greece and in Poland.

Unemployment benefit recipients with children have considerably higher net incomes than those without. On OECD average, having two children improves the net income position by 11 to 15 percentage points, depending on whether the person lives in a couple and, if so, whether or not the second spouse is working.

Figure 2.2. **Tax-benefit position of unemployed individuals, 2005** *(cont.)*



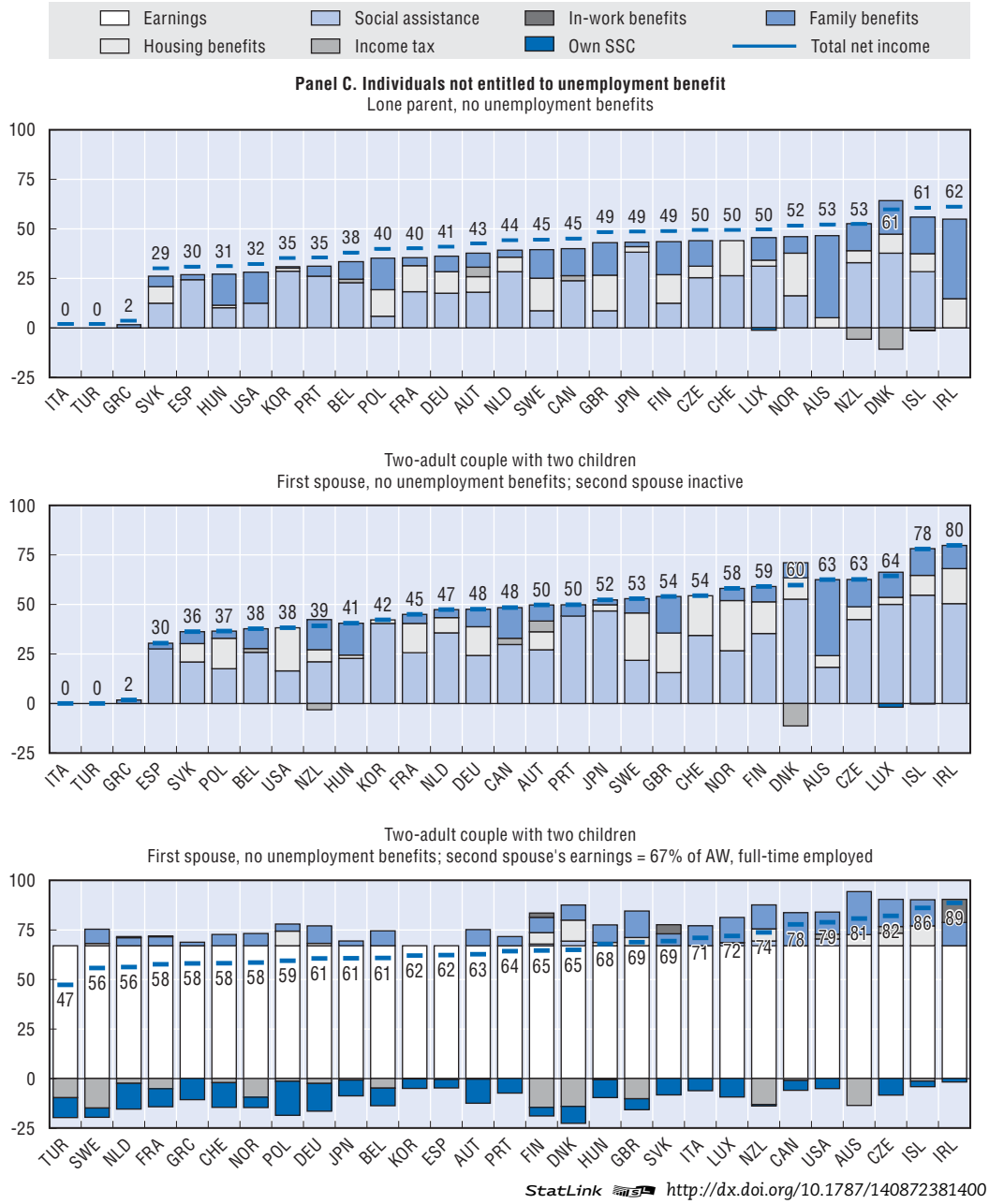
StatLink http://dx.doi.org/10.1787/140872381400

1. APW (average production worker wage) for Ireland and Korea.

Source: OECD Tax-Benefit Models.

Turning to Panel B, it can be seen that where unemployment benefits are earnings-related, net income levels for unemployment benefit recipients tend to be considerably lower when previous earnings are low (67% AW, rather than 100% AW). On average, the net income level in this case falls from 41% to 34% of AW. With 15 percentage points or more, the fall is particularly pronounced in the United States, the Slovak Republic, Portugal and Luxembourg.

Figure 2.2. **Tax-benefit position of unemployed individuals, 2005** *(cont.)*



StatLink http://dx.doi.org/10.1787/140872381400

1. APW (average production worker wage) for Ireland and Korea.

Source: OECD Tax-Benefit Models.

Yet, in about one third of the countries, unemployment benefits are the same regardless whether previous earnings were 100% or 67% of AW. Of those countries, Australia, Iceland, Ireland, New Zealand, Poland and the United Kingdom provide flat-amount unemployment payments (sometimes means-tested) while benefits in Belgium, Denmark, Greece, Hungary and Turkey are earnings-related but subject to benefit ceilings which are reached at both the 100% and 67% earnings levels.

Net income levels of those not entitled to unemployment benefits are considered in Panel C. They generally receive social assistance and other means-tested benefits instead

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and tend to be worse off. Compared to a single unemployment benefit recipient with previous earnings of 67% of AW, net incomes of social assistance recipients are, on average, one third lower: 23% of AW, compared to 34%. In some countries, these differentials are considerably higher: compared to the unemployment benefit recipient, net incomes are only one sixth in the United States, one third in Portugal and between 40% and 50% in Canada, Hungary, Korea, Portugal, Spain and the Slovak Republic. In Greece, Italy and Turkey, where no general SA programme exists on a national level, those not entitled to unemployment benefits may not have any benefit income at all.

In a number of countries, however, net income levels of those entitled and not entitled to UB can be relatively close (Australia, Austria, Denmark, Finland, Iceland, Ireland, New Zealand and the United Kingdom). In the Netherlands, they are even slightly higher because unemployment benefit is taxed while social assistance is not.

In the particular case of couples with children where neither of the partners are working (see Figure 2.2, Panel B, second chart), the difference in net incomes between those on unemployment benefit with previous earnings of 67% of AW and those on social assistance is much lower in many cases (and on OECD average). This is often due to relatively higher levels of family benefits, but also housing benefits.

3. Net transfer payments available to the poor

The preceding sections analysed the operation of taxes and benefits in relation to average wages in each country. Social policy, however, often focuses on persons and households with very low incomes. Income protection schemes providing direct financial support such as social assistance systems or minimum floors embedded in other programmes are directly targeted towards the poor. At the same time, this is the group that can potentially gain most from financially rewarding employment opportunities. This section therefore examines the mechanics of tax-benefit systems relative to low-income cut-off points that are commonly referred to as "poverty lines". By comparing the generosity of benefits using common poverty concepts across countries, the section provides a comparative perspective of the operation and adequacy of benefit systems.

The calculations below are based on three low-income criteria commonly used in comparative research to identify low-income or "poor" households, namely income below 40%, 50% and 60% of median disposable household income in each country.[3] As the last available household income estimates refer to a benchmark year around 2000, these values have been kept constant and uprated with the consumer price index to the year 2005. The resulting money values for the poverty line at the 50% median disposable income threshold for different household types are shown in Table 2.1. The last column of this table relates poverty lines for a single person to the net income ("take-home pay") of a single full-time employee earning wages at AW level. The resulting percentages range from below 30% in Turkey and the United Kingdom to 48% and above in Denmark, Canada, Luxembourg and the United States.

Figure 2.3 evaluates net incomes of persons and couples who do not have any earnings from employment and who are also not entitled to unemployment benefits. The results show the levels of resources guaranteed by benefits "of last resort" as percentages of the median equivalent disposable household income and in relation to the three poverty thresholds in countries where these data are available.[4,5] Net income figures take into account social assistance (where available) as well as other benefits and taxes that typically have an influence on the income situation of social assistance recipients.

Table 2.1. **Poverty thresholds and AW values,[1] 2005**

	Data source	Reference year	50% of median equivalised net household income	Poverty thresholds				Poverty threshold as % of take-home pay of average worker[2]
				Single	Lone parent, two children	Couple	Couple, two children	
Australia	Household Expenditure Survey (HES)	1999/2000	12 898	12 898	22 340	18 241	25 796	33
Austria	*Mikrozensus*	1999	8 660	8 660	15 000	12 248	17 321	37
Belgium	Administrative tax statistics	2000	9 285	9 285	16 082	13 131	18 570	44
Canada	Survey of Labour and Income Dynamics (SLID)	2000	14 603	14 603	25 293	20 651	29 206	48
Czech Republic	*Mikrozensus*	2002	70 469	70 469	122 056	99 659	140 939	42
Denmark	The Danish Law Model System	2000	91 906	91 906	159 186	129 975	183 812	48
Finland	Finnish income distribution survey	2000	8 863	8 863	15 352	12 534	17 726	39
France	*Enquête budget de familles*	2000	8 089	8 089	14 011	11 440	16 179	37
Germany	Socio-Economic Panel	2000	9 226	9 226	15 980	13 048	18 452	39
Greece	Household Budget Survey	1999	4 863	4 863	8 423	6 877	9 726	31
Hungary	Household Monitor Survey	2000	480 912	480 912	832 964	680 112	961 824	40
Ireland	Living In Ireland Survey	2000	10 052	10 052	17 410	14 215	20 103	41
Italy	Bank of Italy Survey on Household Income and Wealth	2000	6 753	6 753	11 696	9 550	13 506	41
Japan	Comprehensive Survey of Living Conditions of the People on Health and Welfare	2000	1 351	1 351	2 340	1 911	2 702	33
Luxembourg	*Panel Socio-Economique Liewen zu Lëtzebuerg (PSELL)*	2001	14 941	14 941	25 878	21 129	29 881	49
Netherlands	Income Panel Survey	2000	10 429	10 429	18 063	14 749	20 858	40
New Zealand	Household Economic Survey	2001	11 241	11 241	19 469	15 897	22 481	35
Norway	The Income Distribution Survey	2000	108 734	108 734	188 333	153 773	217 468	40
Poland	CHER panel database for Poland	2000	6 534	6 534	11 317	9 240	13 067	34
Portugal	*Inquérito aos Orçamentos Familiares*	2000	4 185	4 185	7 249	5 919	8 370	40
Spain	*Encuesta Continua de Presupuestos Familiares*	2000	6 664	6 664	11 543	9 425	13 329	41
Sweden	*Inkomstfördelningsundersökningen (HEK)*	2000	82 282	82 282	142 517	116 365	164 565	38
Switzerland	*Enquête sur les revenus et la consommation*	2001	23 121	23 121	40 048	32 699	46 243	43
Turkey	Household Budget Survey	2004	2 067	2 067	3 581	2 924	4 135	19
United Kingdom	Family Expenditure Survey	2000	5 862	5 862	10 154	8 291	11 725	27
United States	The March Current Population Survey	2000	13 583	13 583	23 526	19 209	27 166	57

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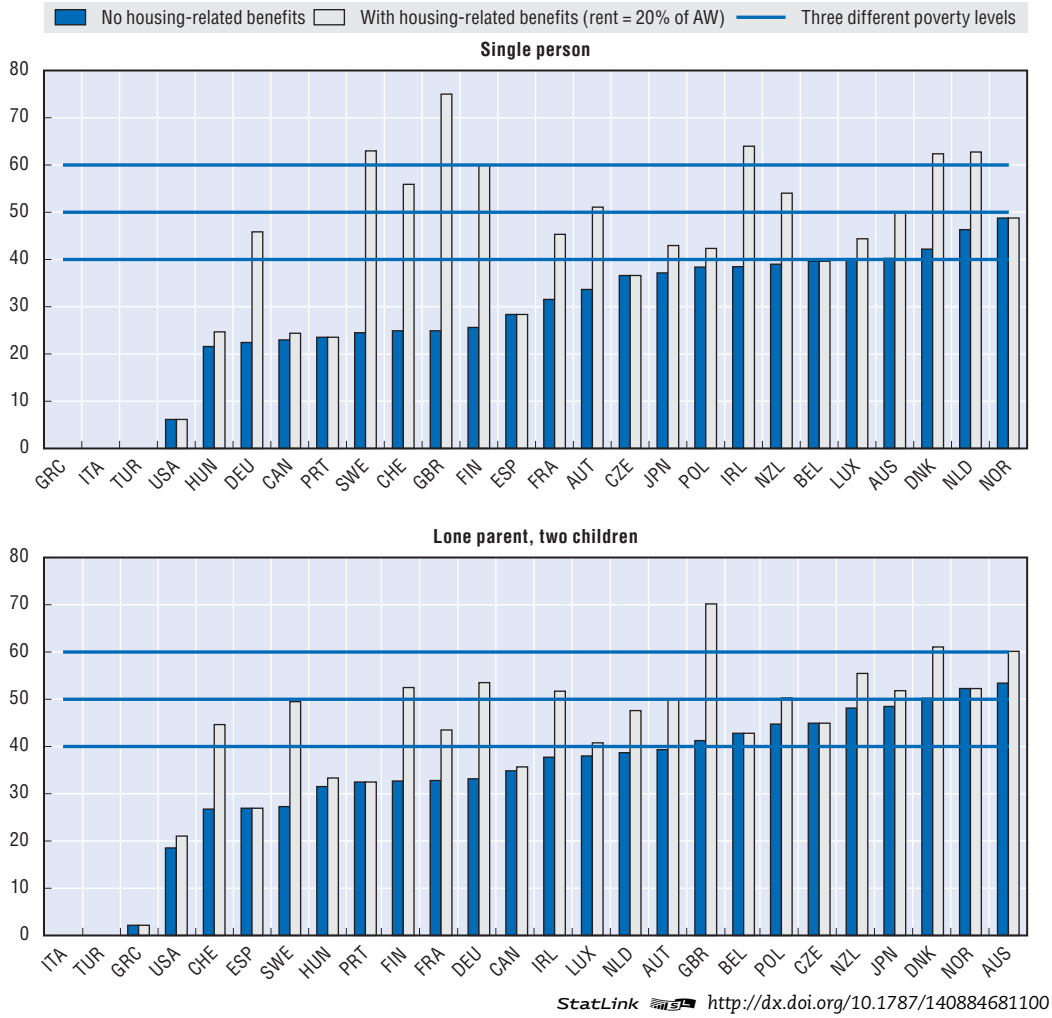
1. All amounts are annual and shown in 2005 national currency (euro for euro area countries). Values for Japan and Turkey in thousands. Poverty thresholds at reference year have been held constant and uprated to 2005 using the consumer price index. Median incomes are computed using the "square root of household size" equivalence scale.
2. Poverty threshold as a percentage of net income of a single AW earner.

Source: Förster and Mira d'Ercole (2005).

In a number of countries, the level of cash benefits depends to a considerable extent on housing costs and housing benefits received. The standard assumption throughout this report (discussed in Annex A) is that persons live in rented accommodation with rent equal to 20% of AW and are eligible to housing benefits on that basis. However, very low income households are likely to have lower rental costs, particularly in the case of persistent poverty or where they have access to social housing. To illustrate the sensitivity of benefit amounts with respect to rent assumptions, Figure 2.3 shows, along with results using the default rent assumption, "lower-bound" net income levels for a situation where benefit

Figure 2.3. **Net incomes of social assistance recipients, 2005**[1]

Percentage of median equivalent disposable household income[2]



StatLink http://dx.doi.org/10.1787/140884681100

1. Figures relate to adults of working age and their children. In the case of married couples, the partner is assumed to be inactive.
2. Household income figures refer to values around 2000, uprated to 2005 with the consumer price index.

Source: OECD Tax-Benefit Models and calculations based on Förster and Mira d'Ercole (2005).

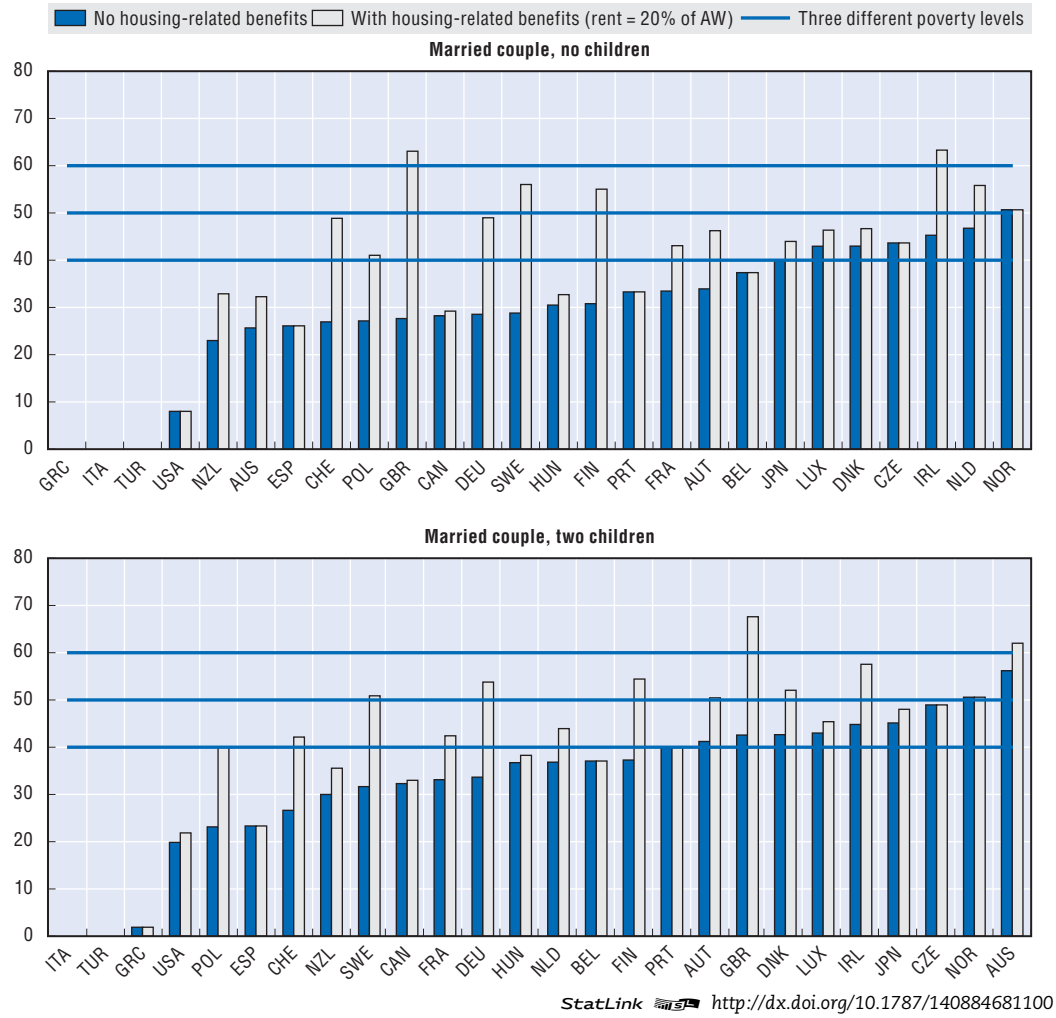
amounts are calculated based on zero housing costs and thus without housing-related benefits (dark-shaded columns).[6]

The results indicate that, in the majority of OECD countries considered here, benefits of last resort (including housing benefits, light-shaded columns) are set above the lowest poverty threshold of 40% of median disposable income. In six countries, single persons relying on these benefits are likely to have income close to or above the 60% median poverty line: this is the case in Denmark, Finland, Ireland, the Netherlands, Sweden and the United Kingdom. And in another ten countries, the level of benefits of last resort is set at least above 40% but below 60% of median income.

However, in most countries where benefit entitlements can potentially lift income close to or above the poverty line, overall entitlements depend critically on the level of housing costs that qualify for housing-related cash support. If benefits conditional on rental expenditure are not available at all (series labelled "no housing-related benefits",

Figure 2.3. **Net incomes of social assistance recipients, 2005**[1] *(cont.)*

Percentage of median equivalent disposable household income[2]



StatLink http://dx.doi.org/10.1787/140884681100

1. Figures relate to adults of working age and their children. In the case of married couples, the partner is assumed to be inactive.
2. Household income figures refer to values around 2000, uprated to 2005 with the consumer price index.

Source: OECD Tax-Benefit Models and calculations based on Förster and Mira d'Ercole (2005).

dark-shaded columns) then incomes are less than half the median income in all countries and exceed the lowest poverty threshold of 40% median income in only five countries (Luxembourg, Australia, Denmark, the Netherlands and Norway). In almost half of the countries, the net income of single social assistance recipients without access to housing benefits is below about one quarter of the median disposable incomes, and in eight of these countries this is the case regardless of whether any housing-related benefits are available or not. In the United States, the income of a single person receiving social assistance benefits is below 10% of the median, while Greece, Italy and Turkey do not operate universal minimum income schemes for working-age individuals.

Comparing across different family types, it turns out that net incomes of social assistance recipients in the two-children family situations (second and fourth panel of Figure 2.3) are in general higher relative to the poverty thresholds than for single persons (first panel). In the case of no access to housing-related benefits the difference exceeds

10 percentage points in seven countries: Australia, Canada, Germany, Hungary, Japan, the United Kingdom and the United States.

Comparing changes over time, social assistance recipients in two-children situations have also recorded somewhat higher increases in their relative net incomes than single persons or couples without children. Table 2.2 looks at changes in relative income levels between 2001 and 2005. On average, net incomes of social assistance recipients relative to a poverty threshold of 60% of median household disposable income increased by about 1 to 2 percentage points for situations without children and about 3 to 4 percentage points for families with two children. The benchmark refers to a low-income threshold for 2001 kept constant to 2005. It should therefore be stressed that net incomes of social assistance recipients may compare less favourably when compared against a current poverty threshold.

Increases have been higher where specific measures have been introduced, for instance for lone parents in Poland (family benefit supplement for this group in 2005) and

Table 2.2. **Net incomes of social assistance recipients in per cent of poverty threshold of 60% of median household equivalent disposable income**[1, 2]

Percentage point changes, 2001-2005

	Single person		Lone parent, two children		Married couple, no children		Married couple, two children	
	No housing-related benefits	With housing-related benefits	No housing-related benefits	With housing-related benefits	No housing-related benefits	With housing-related benefits	No housing-related benefits	With housing-related benefits
Australia	–0.3	–0.4	6.3	6.3	–0.2	–0.3	7.0	6.9
Austria	0.6	–0.5	0.8	0.1	2.3	1.6	2.0	1.5
Belgium	1.8	1.8	2.6	2.6	1.7	1.7	2.3	2.3
Canada	–2.3	–1.7	–1.0	–0.7	–2.8	–2.4	–1.1	–0.8
Czech Republic	–1.1	–1.1	–1.9	–1.9	–1.8	–1.8	–2.5	–2.5
Denmark	2.8	3.3	4.4	2.8	2.7	2.8	2.6	3.2
Finland	0.5	6.9	0.7	4.3	0.6	5.1	0.8	3.9
France	3.2	–2.3	6.0	–2.1	6.6	–2.0	6.6	–0.4
Germany	4.4	4.9	6.3	6.8	5.7	6.0	8.8	9.2
Greece	0.0	0.0	0.4	0.4	0.0	0.0	0.4	0.4
Hungary	3.5	6.2	18.0	19.5	4.9	6.8	16.9	18.2
Ireland	12.0	13.6	10.2	11.9	14.9	16.0	14.0	14.8
Italy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Japan	0.4	0.6	1.1	1.1	–0.3	–0.2	–1.0	–1.0
Luxembourg	3.8	3.5	5.2	4.8	4.6	4.1	5.6	5.2
Netherlands	0.0	4.3	–0.2	3.4	0.0	3.3	–0.2	2.3
New Zealand	–0.6	–3.2	1.7	2.3	–0.4	0.4	4.2	4.6
Norway	5.9	5.9	–0.1	–0.1	2.4	2.4	5.4	5.4
Poland	–3.4	–3.6	28.6	5.8	–2.4	–12.7	–1.2	–1.3
Portugal	4.2	4.2	6.0	6.0	5.9	5.9	7.3	7.3
Spain	1.4	1.4	0.4	0.4	1.3	1.3	–4.2	–4.2
Sweden	2.6	7.5	0.9	3.8	2.5	6.0	1.1	3.6
Switzerland	–9.1	–7.4	–9.8	–8.8	–9.9	–8.7	–9.8	–8.9
United Kingdom	–0.1	8.2	9.7	14.5	–0.1	5.8	7.9	12.1
United States	–0.3	–0.3	–2.0	–2.1	–0.3	–0.3	–2.1	–1.9
Average	**1.2**	**2.1**	**3.8**	**3.3**	**1.5**	**1.6**	**2.8**	**3.2**

StatLink http://dx.doi.org/10.1787/141032230204

1. Figures relate to adults of working age and their children.
2. The poverty threshold has been calculated using household income data referring to a year around 2000, uprated to 2001 and 2005, respectively, with the consumer price index.

Source: OECD Tax-Benefit Models and calculations based on Förster and Mira d'Ercole (2005).

all families with children in Hungary (regular child protection assistance in 2003). On the other hand, a few countries also recorded drops in relative net income levels of social assistance recipients notwithstanding the family situation: Canada, the Czech Republic, Poland (with the notable exception of lone parents), Switzerland and the United States. In Switzerland which recorded the largest decreases, this is due to a reform of the social assistance programme in 2005 which eliminated a generalised top-up element to the basic rate ("Forfait II pour l'entretien") and replaced it with a non-generalised element.

The results from Figure 2.3 above suggest that social assistance recipients without any earned income mostly have net incomes below commonly-used poverty thresholds.[7] A relevant question is therefore how much someone would need to earn in order to escape from income poverty. This amount will depend on two factors. First, more earnings are required in countries where the individual "poverty gaps" (the amount by which net income falls short of the chosen poverty line), shown in Figure 2.3 above, are largest. Second, the earnings necessary to reach the poverty line will be determined by the part of in-work earnings that people can keep and, thus, the fraction of any additional employment incomes that is "taxed away" by the combined effects of taxes and benefits withdrawals.

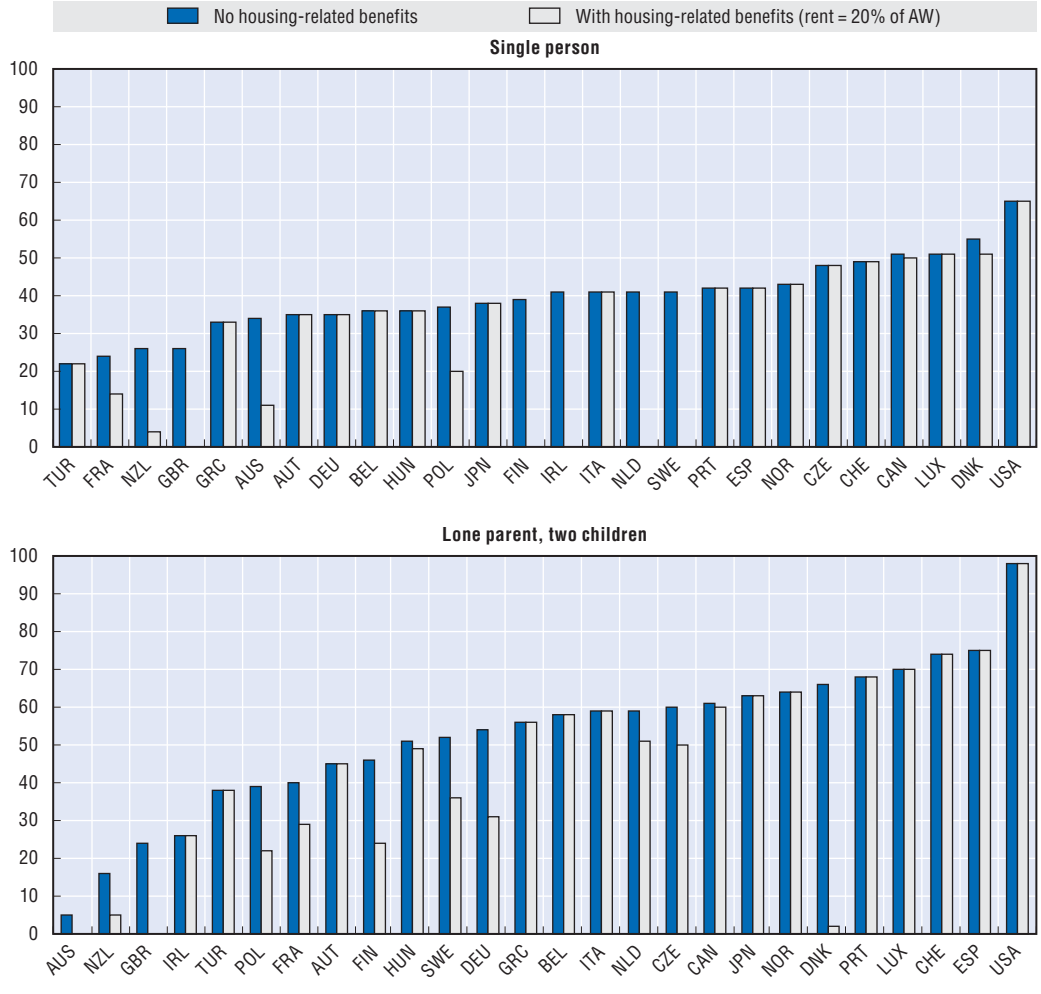
Figure 2.4 shows that, due to the latter effect, the results are not simply the reverse of those shown in Figure 2.3. For instance, single persons in New Zealand and the United Kingdom require the same fraction of average earnings to escape poverty (26% of AW) even though the "poverty gaps" that these earnings need to bridge are larger in the United Kingdom. In general, the amounts of earnings needed to reach the poverty line increase with increasing family size, but there are significant differences across countries. In Australia, Ireland, New Zealand and the United Kingdom, for instance, lone parents without access to housing-related benefits need a lesser amount of earnings than single persons to reach the poverty line. By contrast, lone parents in Spain and the United States would require earnings that are one third higher than those required by single persons.

The amounts of gross earnings needed to escape poverty vary substantially across countries. For instance, for families with two children in Australia, one person earning less than 10% of AW is sufficient to ensure income above the poverty line while the required earnings are more than two-thirds of AW in Denmark, Luxembourg, Switzerland and Spain and approaching or even exceeding average wage earnings in the United States.

In a majority of countries, wages are subject to statutory minima (see Annex Table A.1). Comparisons based on the gross levels of minimum wages do not take into account differences in taxes and benefits and can therefore give misleading indications about the true value of wage floors.[8] Figure 2.5 shows the *net* incomes of full-time employees earning the statutory minimum wage and relates those to median household disposable income.[9] Comparing results with those in Figure 2.4, it appears that countries where relatively low earnings levels are required to reach the poverty line also exhibit higher net incomes relative to the poverty line for those earning minimum wages. This is, for instance, the case in Australia, France, New Zealand and the United Kingdom while the inverse pattern can be observed in the United States and, to a lesser degree, in Spain. However, there are exceptions to this general pattern as a result of cross-country variations in minimum-wage levels. For instance, social assistance recipients in Ireland require relatively high earnings in order to escape poverty but a higher statutory minimum wage ensures that full-time employees are less affected by income poverty than in other countries. In the case of single-person households, the opposite pattern is observed for

Figure 2.4. **Gross earnings required to reach a poverty threshold of 60% of median income, 2005**

Percentage of average worker wage (AW)



StatLink http://dx.doi.org/10.1787/141012716555

Note: Results are shown in relation to the "60% of median income" poverty threshold computed for a year around 200 and uprated to 2005 with the consumer price index and relate to persons earning hourly wages equal to the weekly AW divided by 40. In countries where tax-benefit rules depend on working hours (*e.g.* in the case of IW benefits), net incomes may differ for different hourly wage rates. In the married-couple case, it is assumed that there is only one earner.

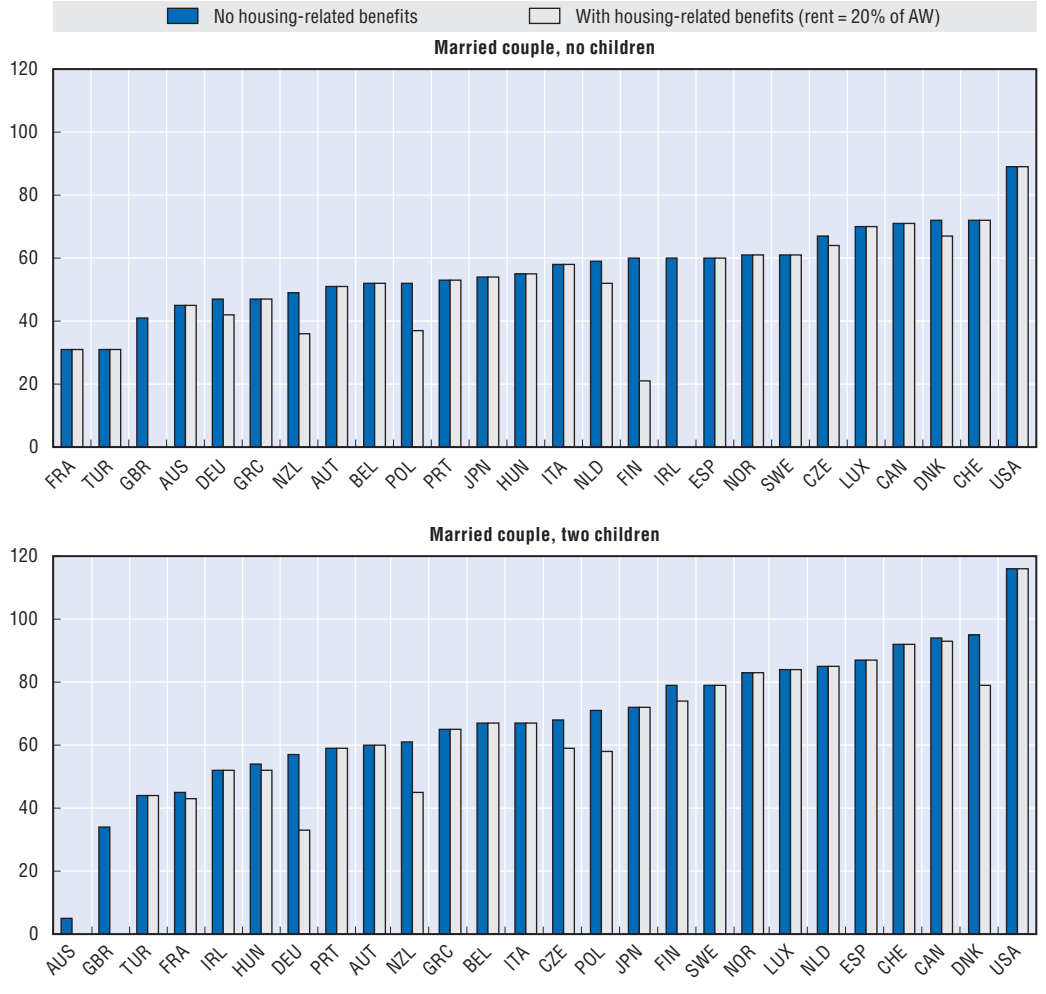
Source: OECD Tax-Benefit Models and calculations based on Förster and Mira d'Ercole (2005).

Hungary. While the fraction of AW earnings required to escape poverty is lower than in Ireland, the net incomes of Irish full-time minimum-wage employees is significantly higher.

In Spain and the United States, full-time minimum-wage earnings are not sufficient to ensure net incomes above the 40% poverty line for single persons (except Spain), lone parents and one-earner married couples. With the exception of Australia and the United Kingdom, net incomes of one-earner married couples with or without children fall short of the 60% of median poverty line. Net incomes of lone parents in a minimum-wage job are above 60% of median household income in only five countries (New Zealand, Poland, Ireland, Australia and the United Kingdom).[10] In general, incomes resulting from both parents working (one partner in full-time minimum-wage jobs and the other one at two-thirds of AW) are above the 60% median poverty line.

Figure 2.4. **Gross earnings required to reach a poverty threshold of 60% of median income, 2005** *(cont.)*

Percentage of average worker wage (AW)



StatLink http://dx.doi.org/10.1787/141012716555

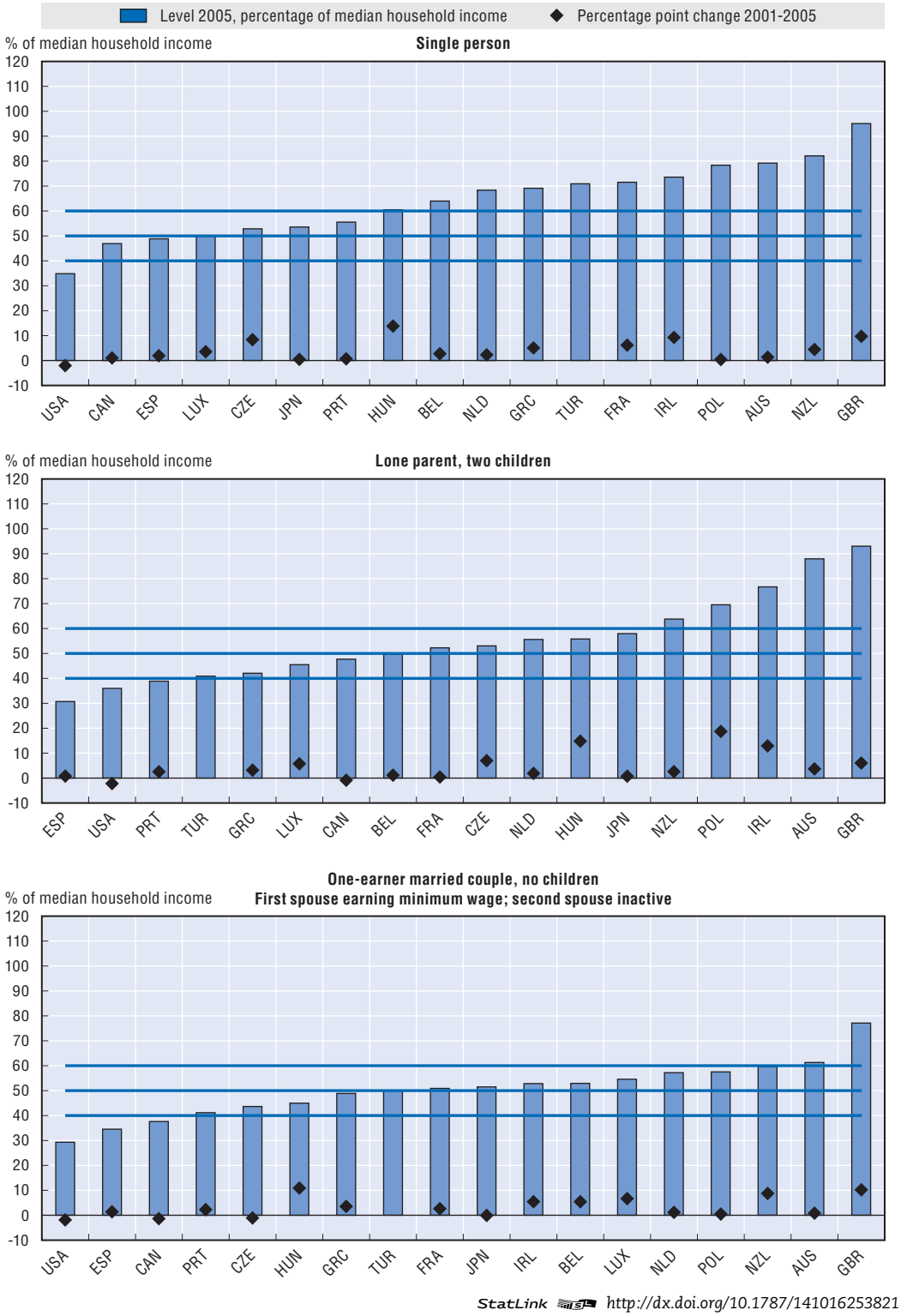
Note: Results are shown in relation to the "60% of median income" poverty threshold computed for a year around 200 and uprated to 2005 with the consumer price index and relate to persons earning hourly wages equal to the weekly AW divided by 40. In countries where tax-benefit rules depend on working hours (*e.g.* in the case of IW benefits), net incomes may differ for different hourly wage rates. In the married-couple case, it is assumed that there is only one earner.

Source: OECD Tax-Benefit Models and calculations based on Förster and Mira d'Ercole (2005).

The second series in Figure 2.5 shows percentage point changes in relative net income levels of minimum-wage earners between 2001 and 2005. Again, it should be stressed that the median household income values refer to 2001 kept constant to 2005. Changes in relative net incomes of minimum wage earners therefore may compare less favourably if compared against a current poverty threshold. For single persons and lone parents these relative income levels have increased, on average, by some 4 to 5 percentage points, but by much larger amounts in Ireland and the United Kingdom and in the central European countries – the Czech Republic, Hungary and Poland (for lone parents only in the latter). By contrast, net minimum wage levels with regard to median income slightly decreased in the United States, except in the case of two-earner couples.

Figure 2.5. **Net incomes of full-time minimum-wage earners, 2005**

Percentage of median household income and percentage point changes, 2001-2005



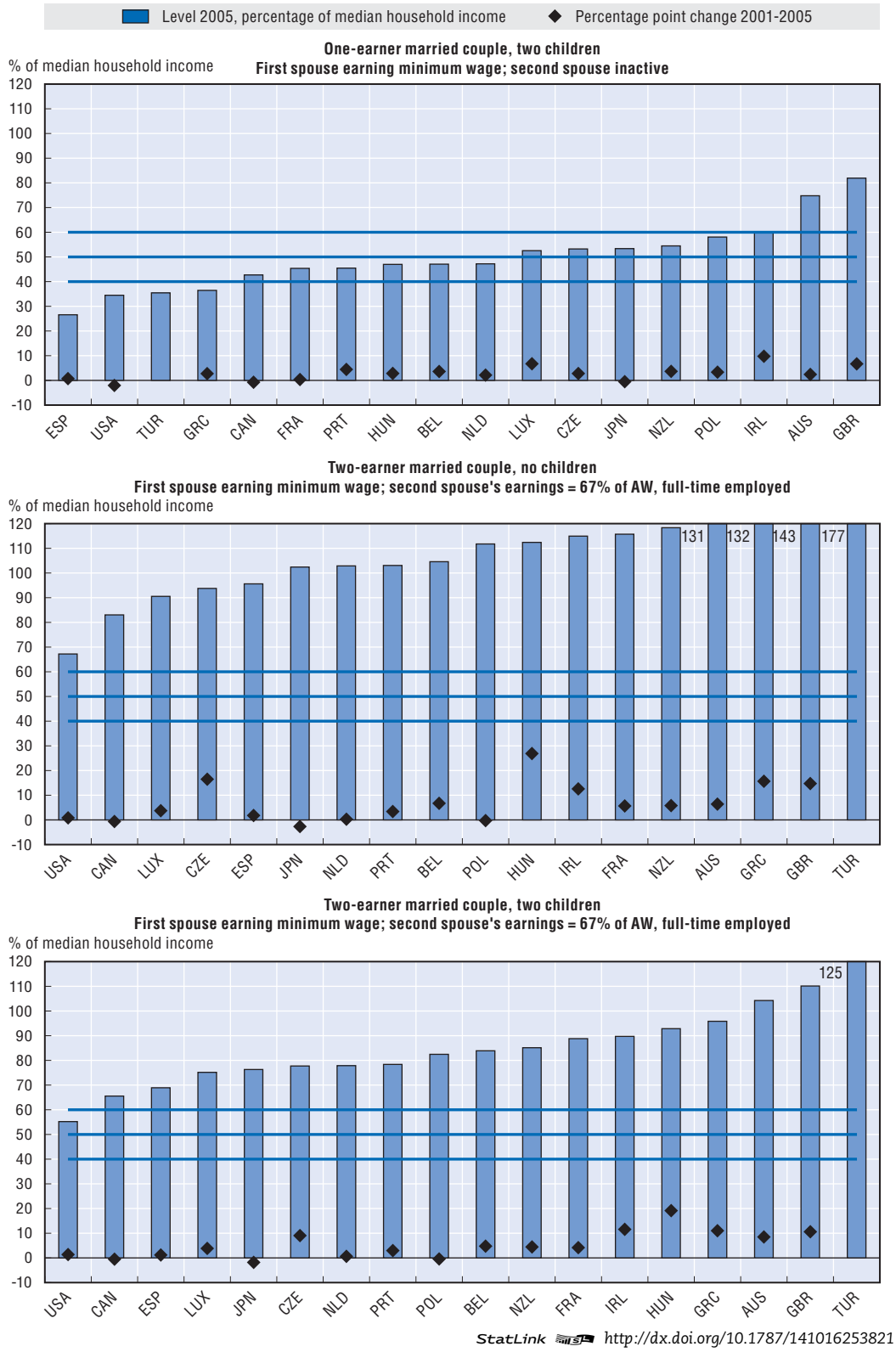
StatLink http://dx.doi.org/10.1787/141016253821

Note: Only countries where statutory minimum wages are in place are considered.

Source: OECD Tax-Benefit Models and calculations based on Förster and Mira d'Ercole (2005).

Figure 2.5. **Net incomes of full-time minimum-wage earners, 2005** *(cont.)*

Percentage of median household income and percentage point changes, 2001-2005



StatLink http://dx.doi.org/10.1787/141016253821

Note: Only countries where statutory minimum wages are in place are considered.

Source: OECD Tax-Benefit Models and calculations based on Förster and Mira d'Ercole (2005).

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Notes

1. In Finland, the tax reduction from the earned income tax allowance is shown as an in-work benefit.
2. Chapter 3 considers to what extent unemployment benefits change over time for the long-term unemployed.
3. Household income is defined as current cash market incomes of all household members (earnings and capital income) plus cash government transfers minus income taxes and own social security contributions. In order to compare incomes across different household sizes, household incomes are equivalised using the "square root of household size" equivalence scale. Further details and limitations are discussed in Förster and Mira d'Ercole (2005), Annex 1.
4. In Australia and New Zealand, unemployment assistance benefits shown in Table 1.3 have been considered benefits of "last resort" here. Depending on the family circumstances, other types of benefits may exceed unemployment assistance values (*e.g.* for lone parents). In these cases, it has been assumed that families receive the highest benefit amount they would be entitled to.
5. It is worth emphasising that not all families formally entitled to these safety-net benefits will claim or receive them. That is, there will be poor families with resources below the net income amounts calculated here even if they resemble our chosen household types in all other respects. Evidence on take-up rates is still relatively scant and only available for a few countries. A recent survey by Hernanz *et al*. (2004) shows that relevant estimates vary markedly across (and within) countries: for social assistance benefits, more recent studies have found take-up rates ranging from less than 40% in Germany to above 70% (Netherlands, United Kingdom, United States).
6. The benchmark income measure – equivalent disposable household income – is estimated before deducting housing costs but includes housing benefits.
7. The low-income cut-off benchmark of 60% of equivalent household disposable income is commonly used as "risk-of-poverty" benchmark by the European Commission.
8. OECD (2007) discusses the tax treatment of minimum wages in OECD countries in detail.
9. The net income estimates of minimum wage earners in this figure refer to estimates including housing-related benefits.
10. Net incomes are shown *before* deduction of any childcare costs which lone parents working full-time are likely to incur (see Chapter 4).

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Chapter 3

Financial Consequences of Employment Transitions

Introduction

Benefit systems that partly compensate for lost earnings are characterised by a trade-off between income protection and maximising the financial gain from work. This is most apparent in the case of unemployment benefits. In addition, means-tested benefits, such as social assistance or housing benefits, are reduced or withdrawn as earnings increase and can thus lessen the financial reward of taking up a new job or working longer hours. While benefits provide income during unemployment, taxes and social security contributions can adversely affect work incentives by reducing the net value of earnings when taking up work. This chapter quantifies the balance of these effects. It measures the income differentials between different work situations in order to determine the financial consequences of moving between them.

The first section presents an illustration of the mechanics built into tax-benefit systems, taking as examples "budget constraints" of lone-parent families for selected OECD countries. The subsequent sections provide and discuss indicators referring to three different types of transition between work and unemployment. Sections 2 and 3 consider the income position of employees becoming unemployed using *net replacements rates* as the main indicator. Finally, Section 4 looks at unemployed persons returning to work (using the *average effective tax rate* measure), and Section 5 analyses the financial effects of a change in working hours for those already in employment using *marginal effective tax rates*.

Absolute income levels, as computed in the previous chapter, are required for determining the living standards of employees and of unemployed persons and their families at a given point in time. However, income gains and losses that result from moving between different work situations are of critical importance, as they show to what extent tax-benefit systems provide insurance against lost earnings on the one hand and succeed in maintaining financial work incentives on the other.[1]

The indicators presented below are calculated using the OECD tax-benefit models and are subject to a number of assumptions and limitations. These are discussed in more detail in Annex A. The most important of the underlying assumptions to take into account for interpreting the results are as follows:

- Unemployment benefits: those becoming unemployed are assumed to be entitled to unemployment benefits which, in most countries, requires participation in certain job-search activities and may depend on whether job losses qualify as involuntary.
- Means-tested benefits: where means-tested benefits are included in the calculations, it is assumed that people do not have any assets that would make them ineligible. It is further assumed that they receive all the benefits to which they are formally entitled (*i.e.* that there is full benefit take-up).
- All calculations relate to current income and therefore do not take into account any effects of the current employment status on future earnings or benefit levels.

- All incomes are before housing costs, childcare costs and other forms of "committed" expenditure. As a result, they do not reflect any impact that work transitions may have on these types of expenditure.
- Finally, all indicators are computed for a particular set of individuals whose characteristics, including ages (four and six years for children and 40 years for adults), previous employment record (22 years), or housing costs (20% of AW), have been chosen to illustrate the most relevant mechanisms built into tax and benefit systems rather than being representative of the underlying population in any particular way.

1. An illustration of the mechanics built into tax-benefit systems

In analysing net income positions of employees and unemployed people, Chapter 2 above focused on selected earnings levels. In order to better understand the mechanics of tax-benefit systems, it is however useful to look at the full range of possible earnings. So-called "budget constraints" provide an in-depth view on the features of tax-benefit systems. These graphs show the feasible combinations of gross and net incomes given the tax-and benefit rules that apply to a specific type of household. By plotting net incomes on gross income components, we can compare net transfers (benefits minus taxes) across countries and across household types. These graphs are also useful to analyse what determines net household incomes. This is done by disaggregating household net income in order to separately indicate the impact of each individual tax and benefit instrument.

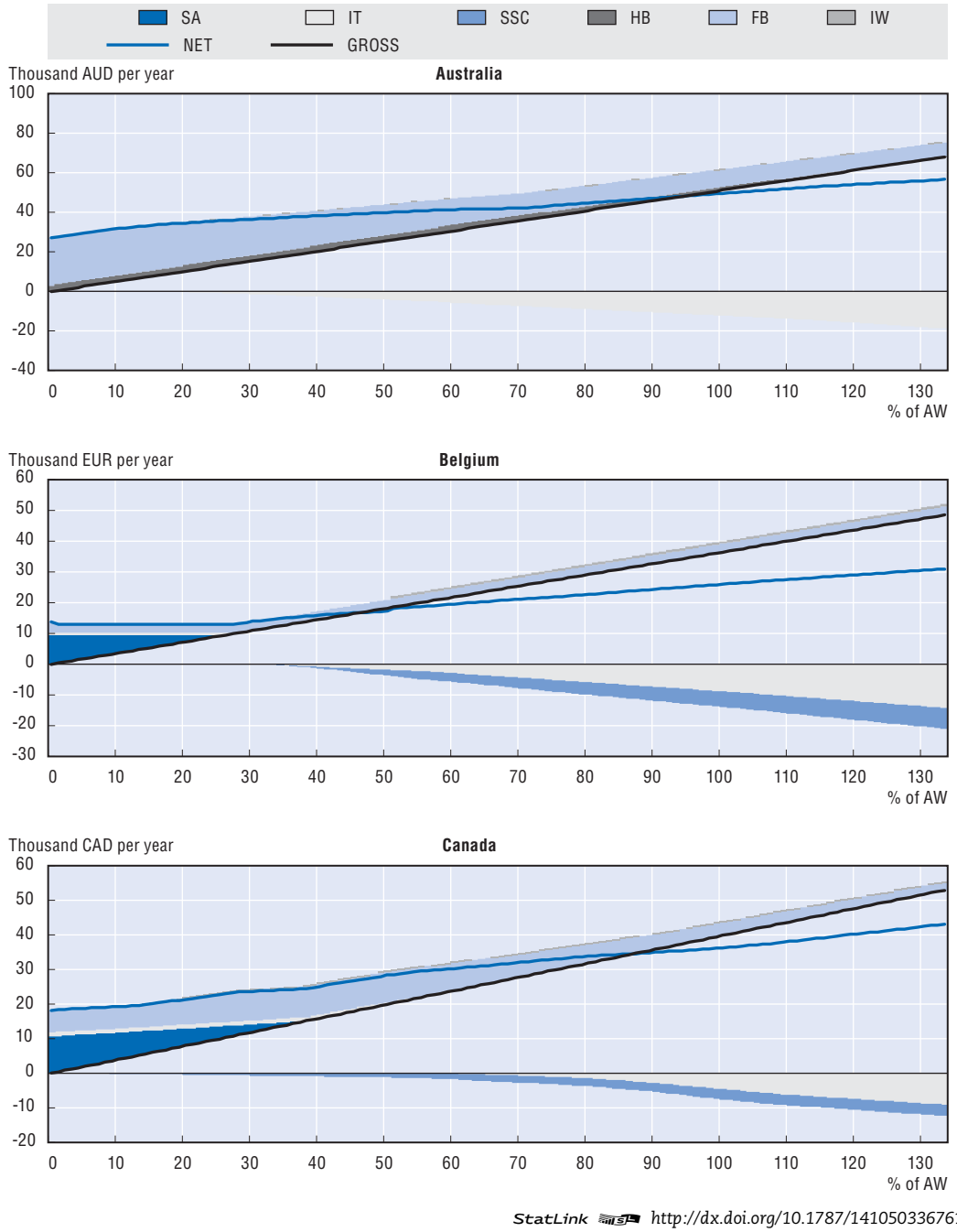
Figure 3.1 shows examples of these graphs for several countries. For illustrative purposes, and in order to provide further information on some of the more recently-introduced "make work pay" policies, results are shown here for countries operating employment-conditional benefits (see also Chapter 1, Sub-section *h*, p. 43). Results relate to a lone-parent household with two children. All results are shown for a transition from non-employment to employment under the particular assumption that the lone parent has not received unemployment benefits while out of work. At low income levels, social assistance benefits are received instead. The reason for this particular assumption in the example below is that a situation of non-employment without entitlement to unemployment benefits is likely to be of considerable relevance for lone-parent households. Employment records may not be sufficient to qualify for unemployment benefits in the first place or else entitlements may have expired as a result of extended periods spent caring for children at home.

The budget constraints are displayed as bold dark lines in Figure 3.1. Net incomes (NET) as well as its components are shown for levels of gross earnings (GROSS) ranging from 0 to 133% of average worker wages (AW). Similar to the calculation shown in Section 1 in Chapter 2 above, wage rates are equal to AW hourly wages below 100% AW so that persons earning less than 100% AW are employed part-time.[2] Net incomes are shown as the sum of gross earnings and total benefits minus total taxes. Social assistance (SA), housing benefits (HB), family benefits (FB) and in-work benefits (IW) are shown as positive income components above the horizontal axis while income tax (IT) and own social security contributions (SSC) reduce net income and are therefore shown as negative components below the horizontal axis.

The rate at which any additional gross earnings are "taxed away" by the combined effects of taxes and benefit withdrawals can be seen by comparing the slope of the budget constraint to that of the gross income line. The budget constraint graphs therefore can also

Figure 3.1. **Budget constraints, 2005**

Lone parent with two children aged four and six, selected countries[1]



StatLink http://dx.doi.org/10.1787/141050336761

1. AW value is not available for Ireland. Calculations are based on APW.

Source: OECD Tax-Benefit Models (budget constraint graphs for a wider range of family types can be found at *www.oecd.org/els/social/workincentives*).

be used as an illustration of marginal effective tax rates (METR).[3] If a small increase in gross earnings results in no change in net income, NET is horizontal indicating that the entire earnings increase is absorbed by higher taxes and lower benefits (the METR is 100%). On the other hand, a budget constraint that is parallel to the GROSS line means that the full amount of additional gross earnings adds to net income (the METR is zero). Downward

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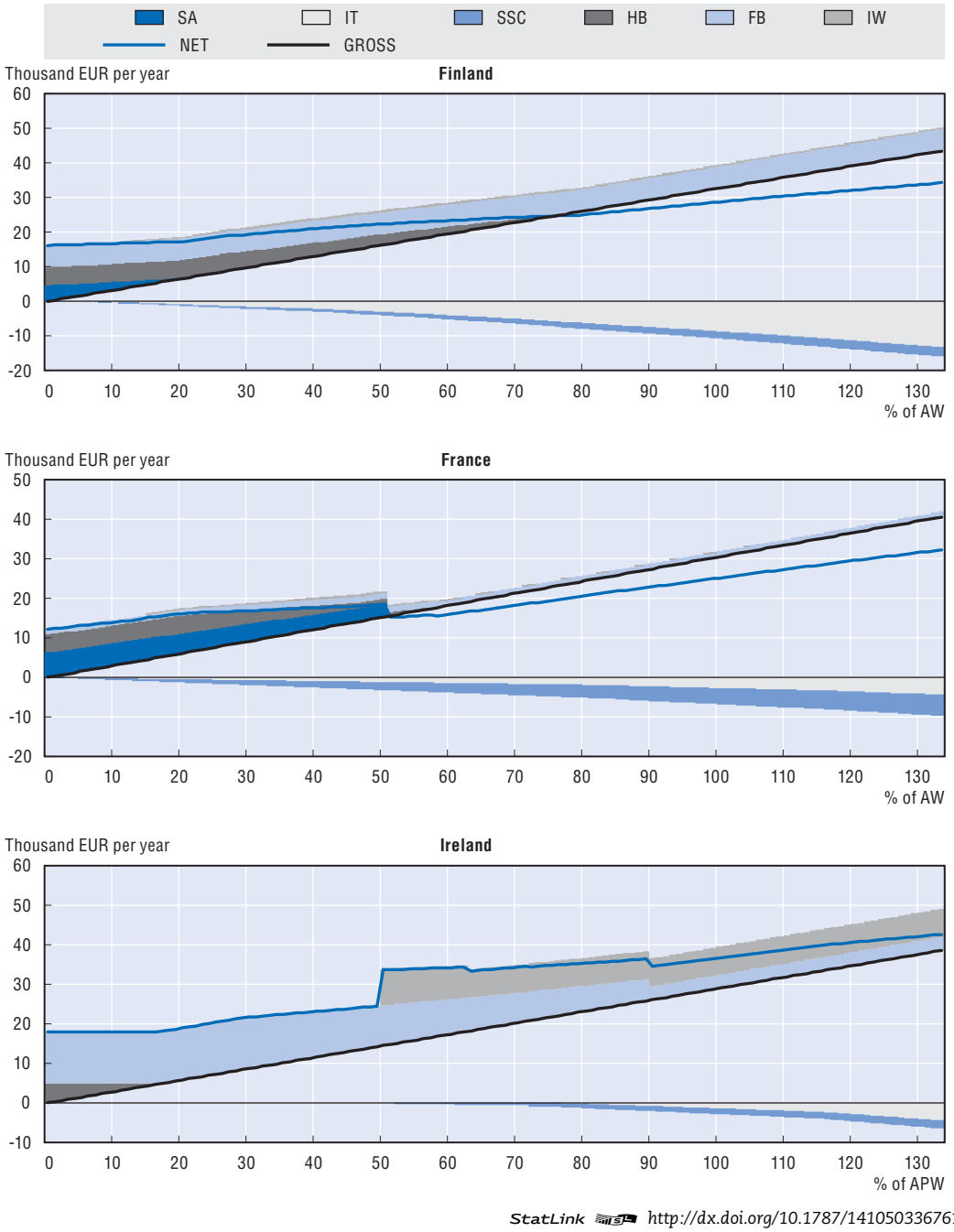
Figure 3.1. **Budget constraints, 2005** *(cont.)*
Lone parent with two children aged four and six, selected countries[1]



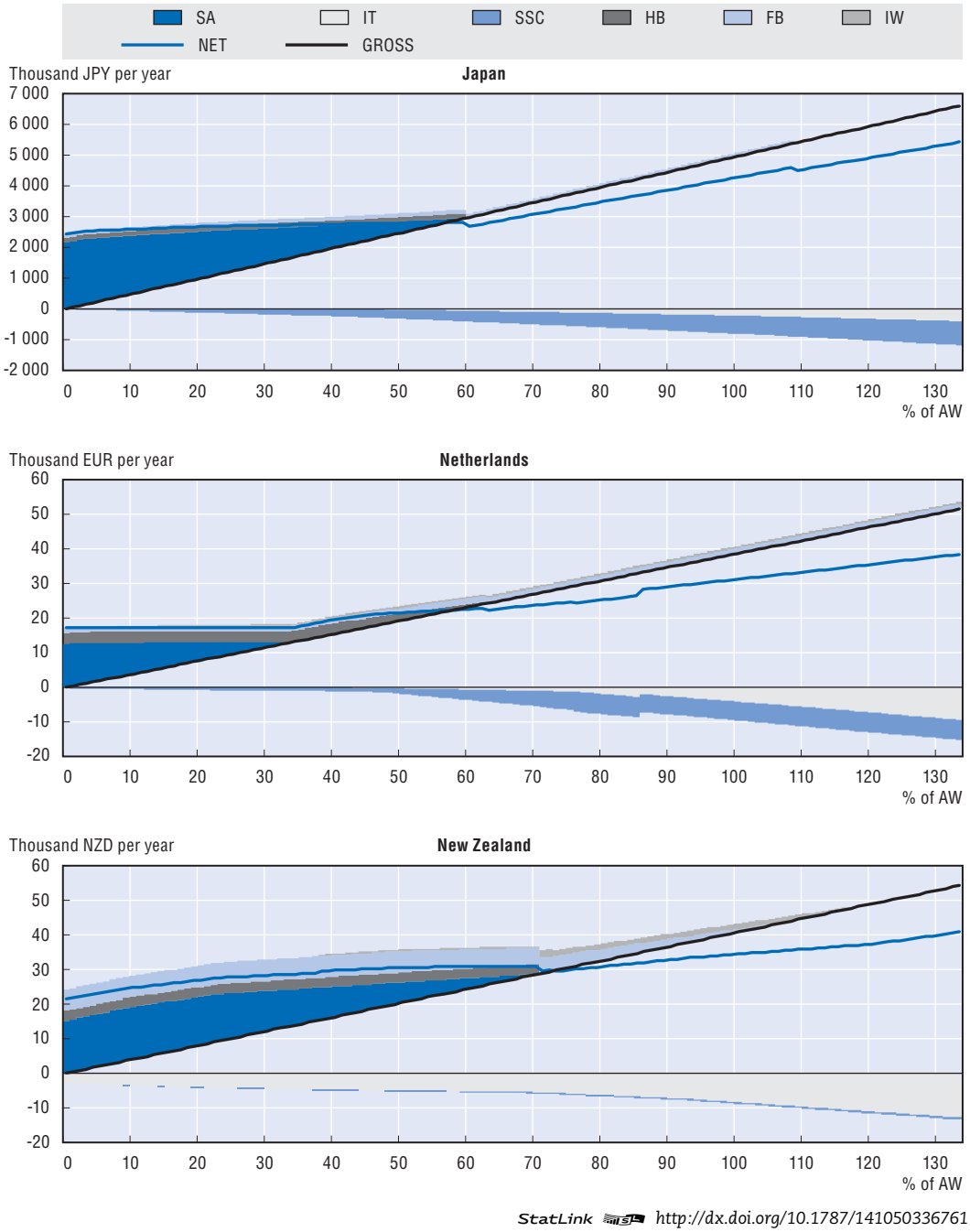
StatLink http://dx.doi.org/10.1787/141050336761

1. AW value is not available for Ireland. Calculations are based on APW.

Source: OECD Tax-Benefit Models (budget constraint graphs for a wider range of family types can be found at *www.oecd.org/els/social/workincentives*).

sloping portions of the NET line indicate situations where additional earnings imply *falling* net incomes which correspond to METRs in excess of 100%. The distance between NET and GROSS indicates the size of effective tax burdens. Where NET is higher than GROSS, the family receives more benefits than it pays in taxes. Where the two lines cross, total benefits equal total taxes (the effective tax burden is zero).

Figure 3.1. **Budget constraints, 2005** *(cont.)*
Lone parent with two children aged four and six, selected countries[1]



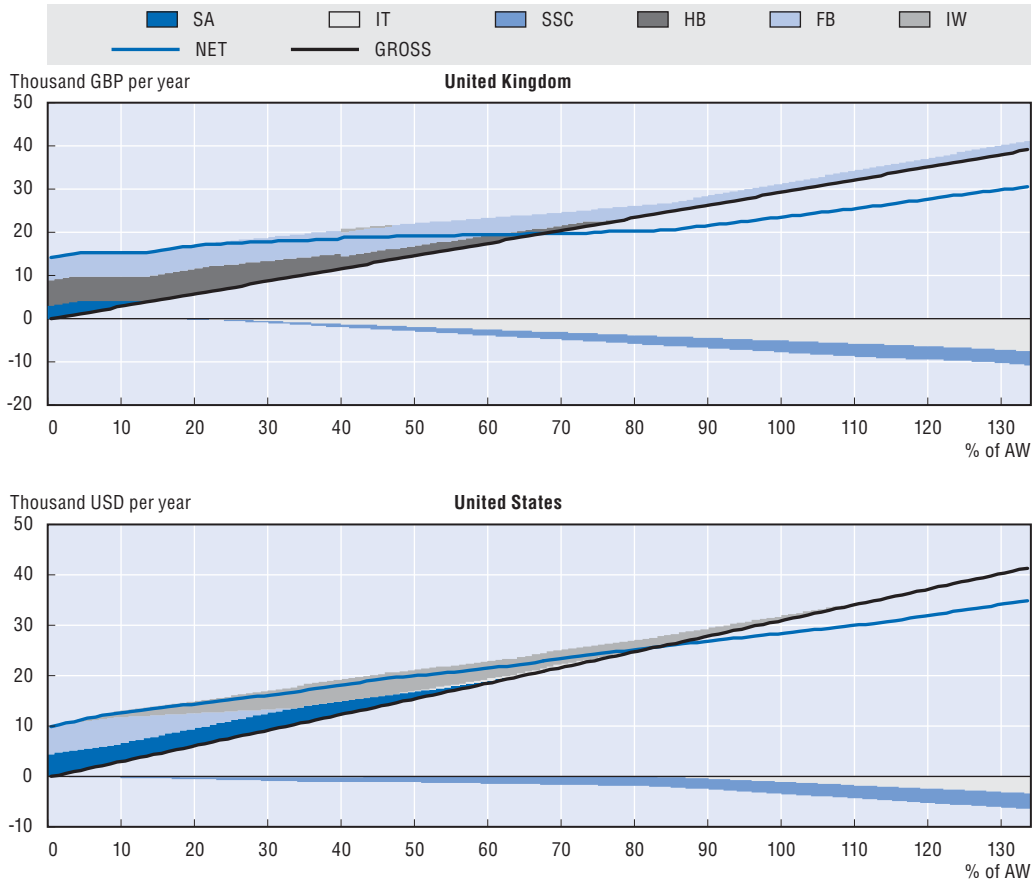
StatLink http://dx.doi.org/10.1787/141050336761

1. AW value is not available for Ireland. Calculations are based on APW.

Source: OECD Tax-Benefit Models (budget constraint graphs for a wider range of family types can be found at *www.oecd.org/els/social/workincentives*).

For all countries, the net income line for lone parents is rather flat at low levels of gross income: a change in gross earnings results in no or only very small changes in net income, to a large part as a result of the phase-out of means-tested benefits (social assistance and housing benefits). In some countries, as in Australia, France or New Zealand, earnings disregards can reduce benefit withdrawal rates and hence increase net incomes for those

Figure 3.1. **Budget constraints, 2005** *(cont.)*
Lone parent with two children aged four and six, selected countries[1]



StatLink http://dx.doi.org/10.1787/141050336761

1. AW value is not available for Ireland. Calculations are based on APW.

Source: OECD Tax-Benefit Models (budget constraint graphs for a wider range of family types can be found at *www.oecd.org/els/social/workincentives*).

combining means-tested benefit income with smaller amounts of in-work earnings. Once social assistance and housing benefits are withdrawn completely, net incomes increase at higher rates as indicated by a steeper slope of the NET line.

In five of the eleven countries shown, family benefits are not income-related and therefore provide a constant level of resources independently of parents' earnings and working hours (Belgium, Finland, France, the Netherlands and the United Kingdom[4]).[5] The other countries phase out benefits, in some cases such that they are already severely reduced at average levels of earnings. Family benefits in the United States are akin to social assistance schemes in other countries and are only available to the lowest-income groups.

For lone parents, family benefits often provide a substantial part of total net income. For instance, in Australia and Ireland, they are the main source of income for lone parents with earnings below, respectively, 33% and 40% of AW. In most countries, social assistance payments are an important income element for lone parents at very low earnings levels (Belgium, Canada, France, Japan, the Netherlands and New Zealand).

In-work benefits typically exhibit the opposite profile of minimum income benefits, with benefit levels going up once earnings or working hours exceed a certain minimum

threshold. They thus boost net incomes for those willing and able to find employment. However, in several cases, these benefits are targeted towards lower incomes so that benefit amounts are phased out at varying rates for higher-earning individuals. While individuals entering new employment can thus benefit from considerable additions to their net incomes, the reduction of benefit levels at higher earnings levels lessens the financial reward for additional work efforts for those with earnings in the phase-out range (indicated by flatter NET lines, *e.g.* in France). However, the tapering of housing benefits and means-tested family benefits is often more relevant in this respect. This can be observed, for instance, in Ireland in the range of one half to two-thirds of AW and in Finland below 80% of AW.

In Australia, Belgium, Canada, Ireland, and the Netherlands, the IW benefits considered here are not income-related and are therefore available as long as relevant working-hours and into-work-transition criteria are met. IW benefits in Australia, Canada and the United Kingdom are small and therefore not easily visible in the graphs. Note however that, with benefit amounts increasing once earnings exceed a certain threshold, the Ontario Child Care Supplement for Working Families in Canada (classified as a family benefit in Figure 3.1) works in a similar way as IW benefits in other countries. On the other hand, the Child Tax Credit in the United Kingdom which has replaced one part of the former Working Family Tax Credit (WFTC) has been included in family benefits in Figure 3.1.[6] Furthermore, the small range for which IW benefits are shown to be available for lone parents in the United Kingdom (between 40% and 48% AW) is due to the assumption of hourly wage rates at AW level. For minimum wage earners, for instance, these IW benefits would be more sizable and available over a much larger earnings range, starting at around 14% of AW.

Several countries operate additional IW benefit schemes which are not considered here. For instance, a one-off transition benefit is available in Japan but only to unemployment insurance recipients and not to those receiving social assistance as is assumed in Figure 3.1. New Zealand operates two additional income-dependent IW benefits which are not available for someone working at AW hourly wages.

In several instances the withdrawal of one or more benefits combines with taxes to cause net incomes for lone parents to decline if their earnings increase (*i.e.* METRs exceed 100%). This is the case for instance in France at 50% AW (social assistance is withdrawn abruptly); in Ireland at 62% AW (Family Income Supplement is reduced) and 90% (family benefits are reduced); in Japan at 60% AW (social assistance and housing benefits are withdrawn) and at 109% AW (family benefits are withdrawn); in the Netherlands at 62% AW (housing benefits are withdrawn); and in New Zealand at 71% (housing benefits are withdrawn). While in all of these cases, net incomes do eventually go up once lone parents manage to increase by a larger amount, such "kinks" in the net income function underline the need for careful tax/benefit design, especially where maintaining financial incentives is one of the objectives of policy reform.

2. Income maintenance during unemployment: net replacement rates

To which extent do countries' tax-benefit regulations assure income adequacy in case of loss of employment? This section presents comparative information on net replacement rates (NRR) for the six family types introduced in Chapter 2. Together with benefit durations, NRRs are important indicators of benefit sufficiency. They show the proportion of in-work

income that is maintained for somebody becoming unemployed. To capture different durations and time profiles of out-of-work benefits, replacement rate indicators are presented for the initial phase of unemployment as well as for longer periods of joblessness.

As indicators of net incomes, NRRs capture the direct effects of all relevant types of taxes and benefits on current household incomes, such as the higher amount of taxes paid by employees or country differences in the taxation of benefits. Given that benefit receipt and tax payments of different household members usually interact, the NRR measures presented here are calculated in relation to the household as a whole:

$$NRR = \frac{y_{\text{netOW}}}{y_{\text{netIW}}} \qquad [1]$$

where y_{netOW} (net income while out of work) and y_{netIW} (net income while in work) denote household net income before and after a transition from employment to unemployment of one household member.

Table 3.1 shows NRRs during the initial phase of unemployment (*i.e.* following any benefit waiting period) for a person who was previously employed on a full-time basis with earnings at 67%, 100% and 150% of AW, respectively. As with all other tax-benefit indicators presented in this publication, taxes are computed under the assumption that initial benefits (in the unemployed situation) and earnings (in the in-work situation) remain unchanged during the entire fiscal year.

Levels of NRRs for unemployment benefit recipients vary greatly across countries but also across earnings levels and family types. For a single person previously at average earnings, NRRs range from below 40% in Ireland, Australia, Greece, New Zealand and Turkey up to 70% and above in Switzerland, Portugal and Luxembourg.

To which extent are NRR levels for short-term unemployed people related to former earnings levels? Given concerns about income poverty, most unemployment benefit schemes utilise benefit floors and ceilings (see Table 1.1), which cause replacement rates to be higher at lower levels of previous earnings. This is indeed the case in a large majority of countries, and particularly in Belgium, Denmark and Sweden, where NRRs for employees earning two-thirds of AW are 20 to 25 percentage points higher than for those at 100% AW (and 35 to 40 points higher than for those at 150% AW). Of course, NRRs are also lower for higher-earning individuals in countries where benefits are paid as a fixed amount that does not depend on previous earnings (Australia, Iceland, Ireland, Poland and the United Kingdom). On the other hand, as a result of progressive tax systems, higher earnings levels are taxed more heavily. This reduces net incomes in work (the denominator for higher-wage workers in the above equation [1]) and can cause NRRs to be higher for better-paid individuals. This appears to be the case, at least for certain family constellations, in Canada, the Czech Republic, Italy, Luxembourg, Portugal, the Slovak Republic, Switzerland and the United States.

Comparisons across family types show that NRRs tend to be higher for families with children since family-related additions to unemployment benefits and other benefit entitlements combine to reduce the relative drop in household resources. This general pattern is observed at all three earnings levels, with only a few exceptions (the United States and, to a lesser extent, Korea, Portugal, the Slovak Republic and Turkey). NRRs for families with children are considerably higher than for families without children in Ireland, New Zealand, Norway and Poland. Some benefits (*e.g.* family benefits) may be available in both the in-work and out-of-work situations while others (*e.g.* housing

Table 3.1. **Net replacement rates for six family types: initial phase of unemployment, 2005**

At different earnings levels[1]

	67% of AW level						100% of AW level						150% of AW level					
	No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	47	41	53	64	77	70	33	29	44	54	65	59	24	21	36	44	53	51
Austria	55	57	81	70	72	85	55	56	77	67	68	81	43	43	64	52	53	69
Belgium	77	67	81	75	71	83	58	50	69	60	56	72	43	38	57	46	43	61
Canada	65	66	81	70	71	88	63	66	77	77	78	84	44	46	61	59	59	68
Czech Republic	56	57	76	63	57	85	50	57	72	68	61	77	50	51	67	59	60	71
Denmark	87	88	93	92	91	95	63	64	75	78	75	79	48	49	63	67	62	66
Finland	70	81	80	87	85	85	54	65	73	78	76	78	46	51	64	63	60	68
France	75	70	87	83	83	87	67	66	81	67	67	81	68	67	78	68	67	78
Germany	60	61	89	78	78	93	60	60	86	70	73	91	58	58	81	65	67	85
Greece	49	52	67	62	65	71	36	38	57	44	47	59	25	27	46	32	33	48
Hungary	52	55	76	66	66	80	40	43	67	56	55	71	30	32	56	44	43	61
Iceland	68	60	84	82	72	88	51	46	71	67	60	77	37	35	58	53	48	65
Ireland[2]	43	68	72	63	70	76	31	49	60	58	59	65	24	36	49	45	45	54
Italy	62	61	82	62	64	86	63	69	79	71	70	82	47	50	65	56	58	68
Japan	66	65	84	69	65	86	54	53	73	54	53	75	46	45	63	46	46	65
Korea[2]	54	54	77	55	54	77	48	48	70	49	48	69	34	34	55	34	33	55
Luxembourg	85	83	91	90	90	94	86	84	89	93	89	93	77	76	83	82	79	84
Netherlands	70	84	84	84	86	85	65	66	78	70	70	79	51	52	66	55	54	67
New Zealand	54	43	59	76	56	69	38	33	48	63	46	56	27	23	38	48	35	45
Norway	66	68	83	94	74	86	64	65	79	77	70	81	47	48	65	59	52	67
Poland	74	77	75	99	69	79	51	53	61	79	56	64	34	36	47	54	40	50
Portugal	77	75	90	86	85	91	82	78	91	81	77	91	88	82	92	86	82	93
Slovak Republic	61	58	84	60	57	85	64	58	81	63	58	83	66	62	79	65	61	81
Spain	76	75	88	78	77	89	62	63	78	76	75	87	43	43	62	54	54	70
Sweden	82	82	91	91	89	92	62	62	78	77	69	79	46	46	64	60	52	66
Switzerland	80	81	88	81	82	89	70	71	81	85	85	88	70	68	85	80	79	86
Turkey[2]	56	56	78	56	56	78	38	38	63	38	38	63	26	26	50	26	26	50
United Kingdom	58	58	60	72	70	65	41	41	49	60	60	54	28	28	39	43	43	44
United States	62	60	82	50	49	87	62	62	78	58	56	80	49	48	64	47	46	66

StatLink http://dx.doi.org/10.1787/141150424840

1. Initial phase of unemployment but following any waiting period. No social assistance "top-ups" are assumed to be available in either the in-work or out-of-work situation. Any income taxes payable on unemployment benefits are determined in relation to annualized benefit values (*i.e.* monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. Person assumed to be aged 40 with 22-years employment history. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are assumed to be aged four and six and neither childcare benefits nor childcare costs are considered.
2. AW value is not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

benefits) may be income-related. In both cases, benefit payments increase NRRs. In general, the effect is stronger for lone parents than for couples.

In five countries, NRRs for lone parents with lower earnings (67% of AW) exceed 90%, *i.e.* they are faced with net income losses of less than 10% during the initial period of unemployment. This is the case in Poland, Norway, Denmark, Sweden and Luxembourg. Replacement rates of this magnitude thus result in quite limited short-term gains from work. However, when interpreting these measures, it is important not only to focus on NRRs in isolation but to also consider the income situation prior to the transition into unemployment. From an income adequacy point of view, both relative income maintenance and absolute income levels are relevant – even high replacement rates may leave households below the poverty line if they are poor while in work. For instance, Table 3.1 shows that NRRs for low-earning lone parents exceed 70% during the initial phase of unemployment in 18 OECD countries. At the same time, Section 3 in Chapter 2 indicates that in a large majority of OECD countries, earnings above 50% of AW are required to ensure family income above the poverty line. In five countries, earnings higher than 67% of AW are needed.[7] In these countries, the lone parent considered here would therefore be at high risk of poverty both with and without work. This limits the scope for bringing down NRRs by reducing out-of-work benefit levels and suggests an important role for measures aiming to increase net incomes of working lone parents, *e.g.* via in-work benefits or tax-based measures.

NRRs compare total family income between two different work situations of one particular household member. They thus capture the degree of income protection provided by both the tax-benefit system *and* any incomes of other household members. As a result, NRRs for two-earner married couples are, to a large extent, driven by the employment income of the second earner – assumed here to remain at 67% of AW following the job loss of the other spouse – particularly in countries where unemployment benefits are low. These are shown in the third columns of each panel in Table 3.1. In these cases, the earnings of the second earner can serve an insurance function and represent an important complement of unemployment benefits, which would, by themselves, maintain only relatively small proportions of in-work earnings.

Table 3.1 considers net replacement income during the initial period of unemployment following any waiting period and thus does not capture country differences in benefit duration and/or changes of benefit levels over time. Longer-term unemployed people may continue to receive unemployment insurance or else receive unemployment assistance, social assistance or no out-of-work benefit at all. NRRs after five years of unemployment are shown in Table 3.2. The estimates assume that social assistance can be received as long as relevant income conditions are met.

In general, NRRs for those unemployed over extended periods of time are significantly lower than during the initial phase of unemployment, and this holds for all previous earnings levels considered. There are, however, exceptions. In particular, social assistance amounts can exceed unemployment benefit levels if unemployment payments are low or are not differentiated according to family situation or need. This can cause long-term NRRs to exceed those for short-term unemployed if, as assumed in Table 3.1, the short-term unemployed are not entitled to (or have not applied for) social assistance (for instance because they can initially draw on savings that would disqualify them from receiving these benefits of last resort). In some of the countries where unemployment benefits are paid as a fixed amount (Iceland, Ireland and the United Kingdom), social assistance benefit recipients

Table 3.2. **Net replacement rates for six family types: long-term unemployment, 2005**

At different earnings levels[1]

	67% of AW level						100% of AW level						150% of AW level					
	No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	47	41	53	64	77	70	33	29	44	54	65	59	24	21	36	44	53	51
Austria	51	64	51	68	79	64	51	52	43	63	64	63	39	40	36	49	50	53
Belgium	65	67	73	75	71	76	48	50	62	60	56	66	36	38	52	46	43	55
Canada	33	52	55	58	62	68	24	38	45	50	54	58	16	27	36	38	41	47
Czech Republic	45	71	53	67	76	70	31	51	44	57	65	59	21	35	34	42	50	47
Denmark	82	78	59	86	92	73	59	57	48	72	77	60	46	44	40	62	64	51
Finland	65	84	60	74	91	69	47	61	50	62	77	59	35	45	41	48	58	49
France	45	59	53	70	78	53	31	41	44	48	54	44	22	28	35	34	38	35
Germany	48	61	60	78	79	65	36	46	51	61	62	56	26	32	41	44	46	45
Greece	0	0	50	3	3	51	0	0	42	2	2	42	0	0	34	2	2	34
Hungary	25	47	50	44	60	57	20	37	44	37	50	51	15	27	37	29	39	44
Iceland	68	86	84	82	89	88	51	66	71	67	74	77	37	50	58	53	59	65
Ireland[2]	72	95	53	67	90	66	52	69	45	61	76	56	40	50	36	47	58	46
Italy	0	0	50	0	0	59	0	0	42	0	0	50	0	0	34	0	0	41
Japan	42	60	51	74	86	54	29	41	41	57	60	44	20	28	33	40	42	34
Korea[2]	25	41	50	56	68	50	17	28	41	38	46	41	12	20	32	27	32	32
Luxembourg	59	81	53	71	90	57	43	57	44	53	65	49	32	40	36	42	49	41
Netherlands	74	86	49	74	84	51	50	59	39	55	61	42	36	43	32	41	45	34
New Zealand	54	43	59	76	56	69	38	33	48	63	46	56	27	23	38	48	35	45
Norway	56	79	53	81	99	55	39	56	43	60	73	46	29	41	36	45	55	38
Poland	42	55	52	66	62	64	28	38	42	52	50	52	19	26	33	36	36	40
Portugal	26	51	51	55	78	54	19	35	43	41	55	45	13	25	34	30	40	37
Slovak Republic	26	42	50	45	52	54	18	29	41	33	37	45	13	20	33	24	27	36
Spain	33	40	53	50	49	54	23	29	44	36	35	45	16	20	35	25	25	36
Sweden	69	87	50	65	95	55	48	60	41	53	70	45	35	44	34	41	53	38
Switzerland	71	89	52	82	94	56	48	61	42	60	70	46	33	40	35	41	47	36
Turkey[2]	0	0	50	0	0	50	0	0	40	0	0	40	0	0	32	0	0	32
United Kingdom	58	69	50	72	79	62	41	49	41	60	67	52	28	33	32	43	48	42
United States	10	17	54	43	48	67	7	12	44	35	40	56	5	8	35	26	30	45

StatLink http://dx.doi.org/10.1787/141182546525

1. After tax and including unemployment benefits, social assistance, family and housing benefits in the 60th month of benefit receipt. Person assumed to be aged 40 with 22-years employment history. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are aged four and six and neither childcare benefits nor childcare costs are considered.
2. AW value is not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

are indeed better off than those relying on unemployment benefits alone. This is also the case in a few other countries, especially for family situations with multiple dependants.

Maximum benefit durations differ across countries and, for those experiencing extended spells of joblessness, unemployment-related benefits may be phased out in a range of different ways Figure 3.2 illustrates time-profiles of NRRs over a five-year unemployment period for a single-earner couple with two children. Without entitlements to social assistance benefits or similar means-tested benefits,[8] NRRs drop by more than two-thirds in 15 OECD countries (Figure 3.2a) while incomes are, unsurprisingly, much more stable over the five-year period for those entitled to and receiving social assistance (Figure 3.2b). Social assistance can also enhance family incomes during the initial period of unemployment. In several countries, such top-ups of low unemployment benefits are possible (*e.g.* Finland, Japan, the Slovak Republic or the United Kingdom), resulting in differences between Figure 3.2a and 3.2b during the initial period of unemployment. In other countries, however, the concurrent receipt of these benefits is not common (Belgium, Ireland, Spain, Sweden or Poland) or explicitly ruled out (Denmark, Hungary or Korea).

Combining different benefit durations, earnings levels and family situations, a synthetic overall measure of the generosity of benefits relative to net earnings can be derived. The resulting measure is a simple average of NRRs over 60 months of unemployment, two previous earnings levels (67% and 100% of AW) and four family types (single persons, lone parents, one-earner couples with and without children), weighted equally. This overall indicator does not cover all existing wage levels and family types and is not meant to take into account the relative frequency of different family types or unemployment spell durations.[9] As all other measures in this volume, it should be seen as a *policy indicator* that summarises relevant mechanics of existing tax-benefit provisions. The effects of these policies on family incomes and labour market outcomes will depend on population characteristics and labour market conditions, and will therefore differ across countries and over time.

Figure 3.3 shows this indicator separately for unemployed individuals not entitled to social assistance (Panel A) as well individuals entitled to it (Panel B). Each panel also shows the changes of this overall indicator between 2001 and 2005.

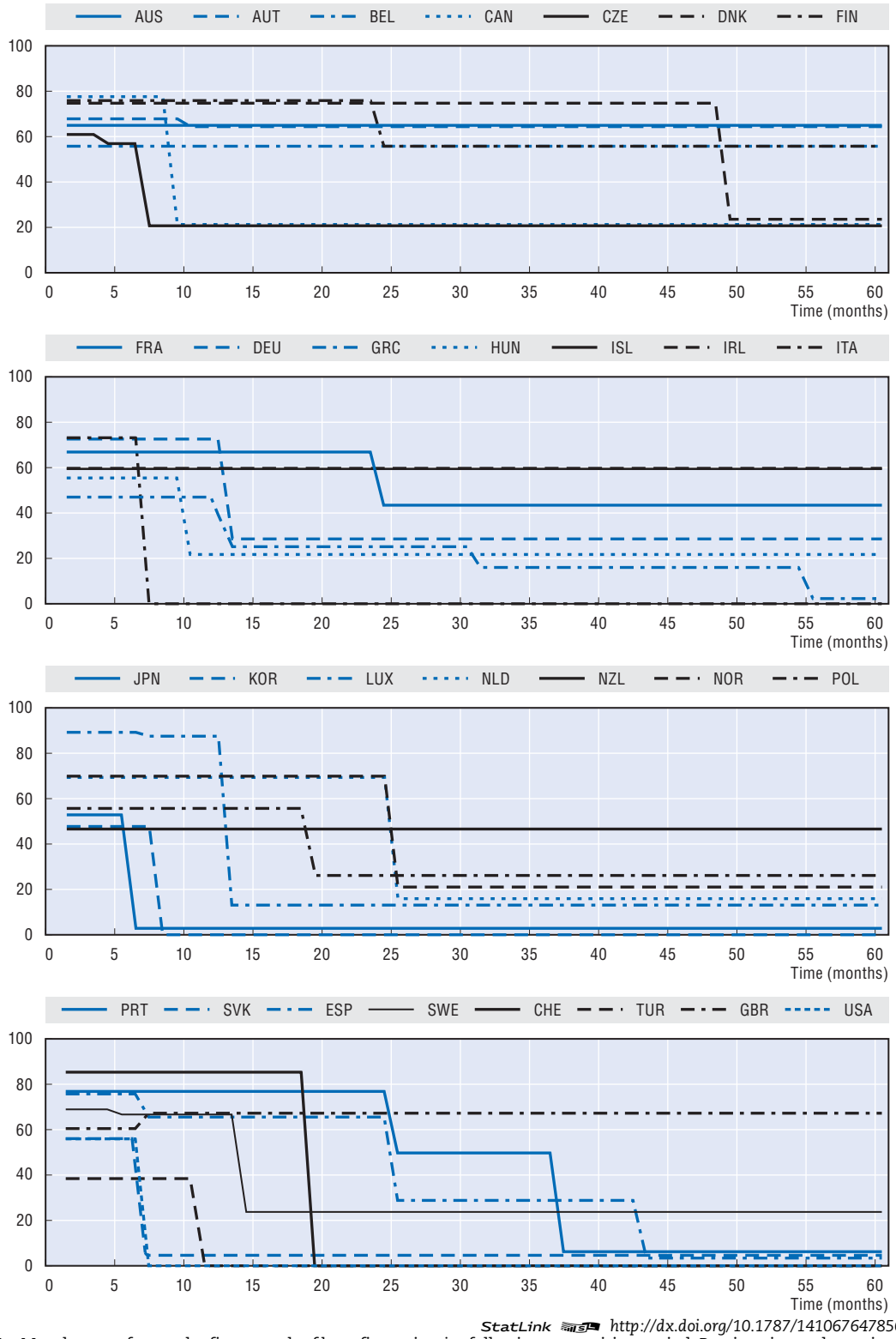
On average across OECD countries, the synthetic measure of net replacement rates was 37% in 2005 when only unemployment benefits are considered but almost 20 points higher (56%) when the unemployed person also qualifies for social assistance and related benefits that are available throughout the unemployment spell. Under both scenarios, Denmark displays the highest NRR values, 68% and 79%, respectively. The synthetic NRR indicator, including social assistance-type benefits, is also high (above 70%) in Switzerland, Iceland, Ireland, Finland, Norway, Netherlands, Sweden and Luxembourg. It is lowest (below 30%) in countries where minimum safety-net benefits for the long-term unemployed are very low or non-existent (the United States, Greece, Turkey and Italy).

In a large majority of countries, this overall measure did not develop very much between 2001 and 2005 (changes were less than 2 percentage points); in the remaining countries the general impression gained is that of falling NRRs. Indeed, when comparing the average of NRRs under the assumption of eligibility to all social assistance benefits, ten countries recorded drops, which were sometimes sizable, while there were modest increases in only four countries.

In Germany, the Netherlands and Norway, the synthetic measure of NRRs for those receiving unemployment benefits (but not social assistance) fell by 30, 20 and

Figure 3.2. **Net replacement rates over a five-year period, 2005**

Panel A. No entitlement to social assistance, one-earner married couple with two children, in percentage[1]



StatLink http://dx.doi.org/10.1787/141067647856

1. Month one refers to the first month of benefit receipt, *i.e.* following any waiting period. Previous in-work earnings are equal to AW (APW in Ireland, Korea and Turkey). Children are aged four and six and neither childcare benefits nor childcare costs are considered.

Source: OECD Tax-Benefit Models.

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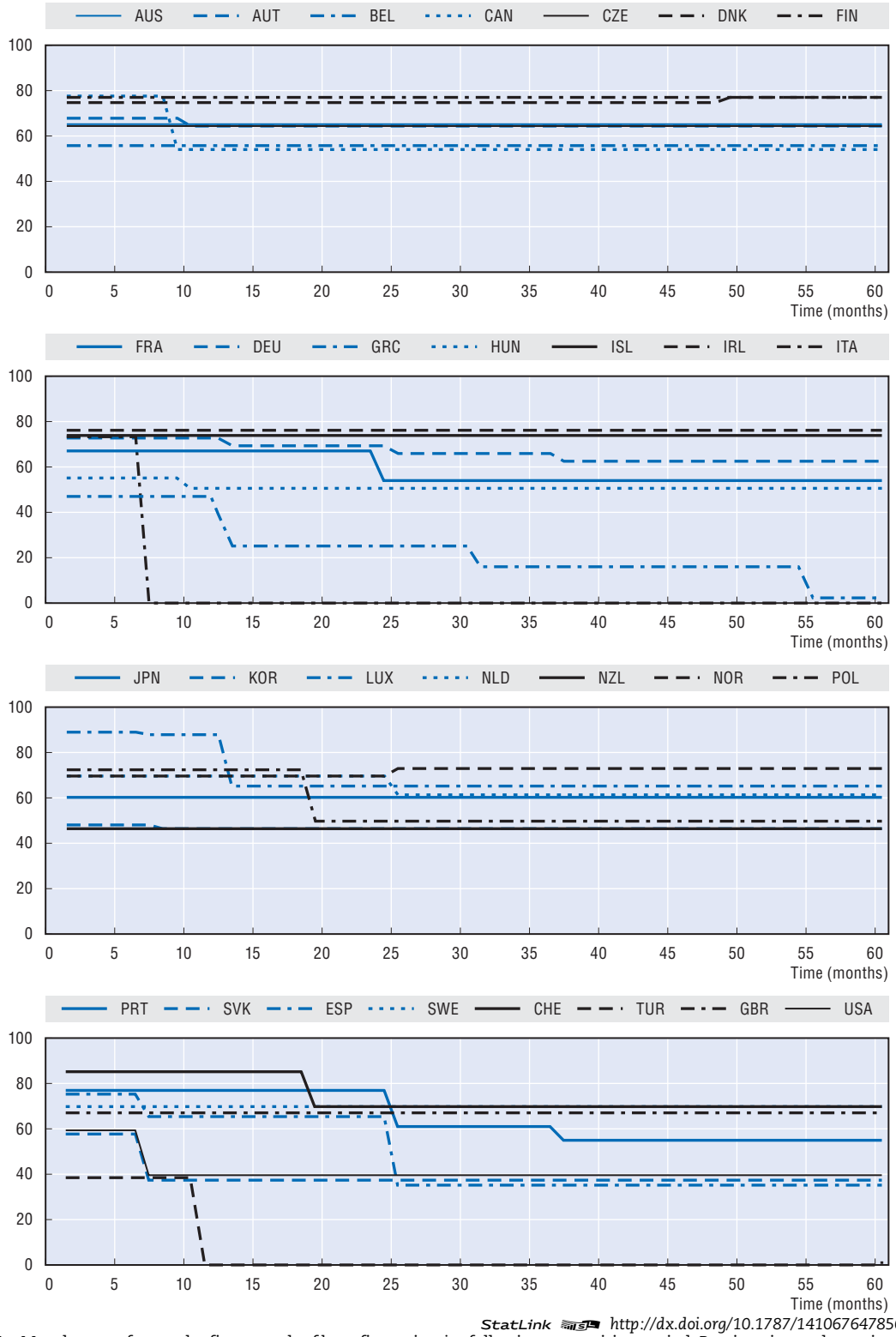
Figure 3.2. **Net replacement rates over a five-year period, 2005** *(cont.)*

Panel B. With social assistance where applicable, one-earner married couple with two children, in percentage[1]

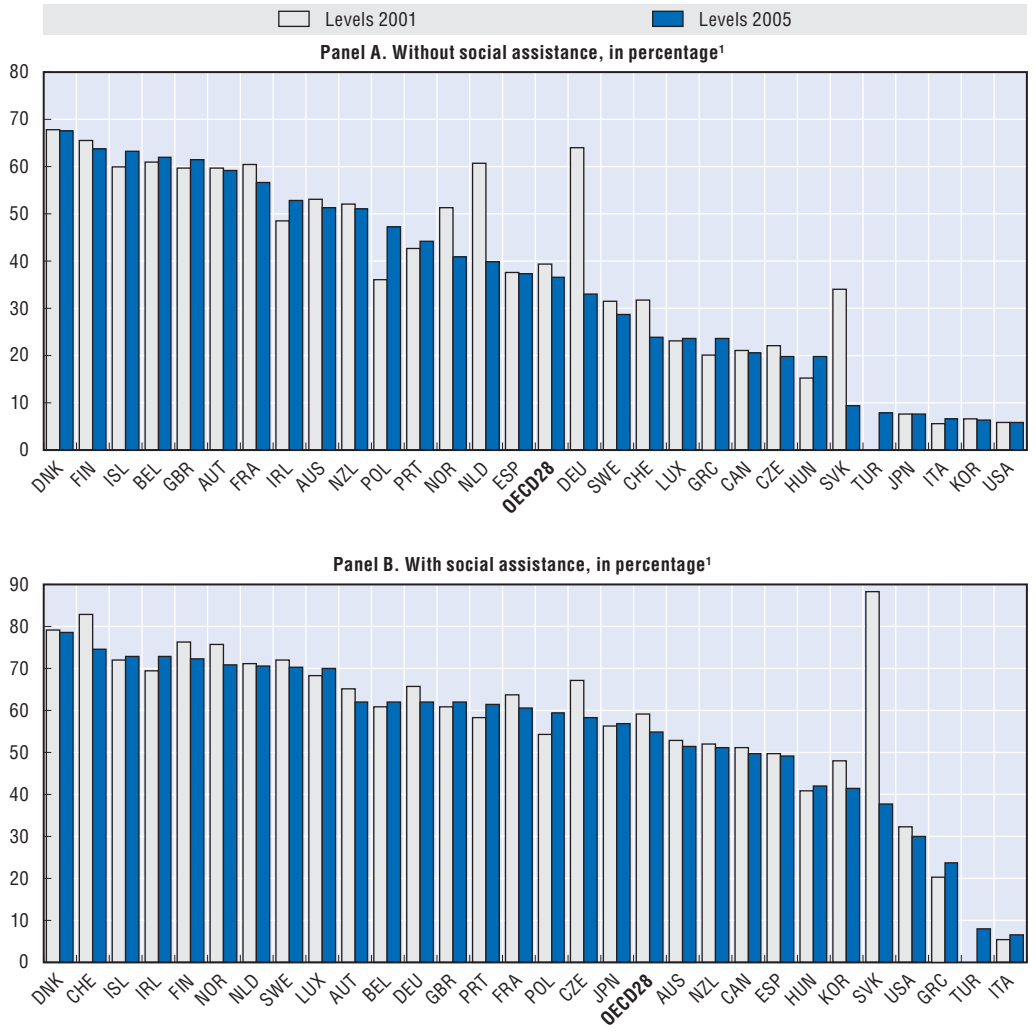


StatLink http://dx.doi.org/10.1787/141067647856

1. Month one refers to the first month of benefit receipt, *i.e.* following any waiting period. Previous in-work earnings are equal to AW (APW in Ireland, Korea and Turkey). Children are aged four and six and neither childcare benefits nor childcare costs are considered.

Source: OECD Tax-Benefit Models.

Figure 3.3. **Average of net replacement rates over a period of 60 months, for four family types and two earnings levels, 2001 and 2005**



StatLink http://dx.doi.org/10.1787/141100261364

1. Unweighted averages over 60 months of unemployment, for earnings levels of 67% and 100% of AW (APW in the case of Ireland, Korea and Turkey) and four family types (single persons, lone parents, one-earner couples with and without children). Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (*i.e.* monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be inactive with no earnings. Children are aged four and six and neither childcare benefits nor childcare costs are considered. OECD average excludes Turkey.

Source: OECD Tax-Benefit Models.

10 percentage points, respectively. In Norway, this was due to the shortening of applicable unemployment benefit durations (from three to two years). In the Netherlands, the "follow-up benefit" (following regular earnings-related unemployment benefit) was abolished in 2004. In Germany, measures in the context of the so-called "Hartz IV Reform" (see Chapter 5) resulted in lower replacement rates for higher-earning individuals. However, in all three countries, the overall NRR measure including all types of social assistance benefits decreased by much less. This is indicative of the importance of jointly considering unemployment and other out-of-work benefits when designing and evaluating policy reforms in this area. On the other hand, the Slovak Republic recorded a considerable

decrease of the overall NRR measures under both scenarios. This is due to structural reforms of the benefit systems in 2003 and 2004 (see Chapter 5).

Poland is the only country where the overall measure of out-of-work replacement rates increased significantly – by 11 percentage points when only unemployment benefits are considered and by 5 percentage points when social assistance benefits are taken into account. This change is entirely due to the introduction of a supplement to family benefit for lone parents in 2004 (see also Table 3.3 below). A more detailed discussion of recent reforms in OECD countries is given in Chapter 5.

Table 3.3. **Average of net replacement rates over 60 months of unemployment, 2005**

For four family types and two earnings levels, in percentage[1]

	Without social assistance					With social assistance				
	No children		Two children		Overall average	No children		Two children		Overall average
	Single person	One-earner married couple	Lone parent	One-earner married couple		Single person	One-earner married couple	Lone parent	One-earner married couple	
Australia	40	35	59	71	51	40	35	59	71	51
Austria	51	53	65	67	59	52	59	66	72	62
Belgium	59	59	67	63	62	59	59	67	63	62
Canada	11	12	29	30	21	33	48	64	69	54
Czech Republic	11	13	30	26	20	39	61	62	70	58
Denmark	61	62	76	72	68	74	74	84	83	79
Finland	52	61	73	69	64	58	73	73	84	72
France	51	52	62	61	57	51	57	65	69	61
Germany	24	25	42	41	33	48	56	71	73	62
Greece	20	21	27	27	24	20	21	27	27	24
Hungary	9	10	31	29	20	26	43	44	56	42
Iceland	60	53	75	66	63	60	76	75	81	73
Ireland[2]	37	59	60	65	55	62	82	63	83	73
Italy	6	6	7	7	7	6	6	7	7	7
Japan	5	5	12	8	8	37	51	65	73	57
Korea[2]	6	6	7	6	6	25	36	48	56	41
Luxembourg	17	17	31	30	24	58	73	68	81	70
Netherlands	38	38	42	42	40	64	73	70	75	71
New Zealand	46	38	69	51	51	46	38	69	51	51
Norway	26	27	67	44	41	55	68	76	84	71
Poland	35	35	81	39	47	41	50	83	63	59
Portugal	40	40	49	47	44	49	58	65	74	61
Slovak Republic	6	6	13	12	9	26	38	41	46	38
Spain	36	35	39	39	37	45	46	53	52	49
Sweden	15	15	46	39	29	61	73	64	82	70
Switzerland	22	23	25	25	24	64	75	75	84	75
Turkey[2]	8	8	8	8	8	8	8	8	8	8
United Kingdom	50	58	66	72	61	50	59	66	73	62
United States	6	6	5	5	6	14	19	41	46	30
Average	**29**	**30**	**43**	**40**	**36**	**44**	**52**	**59**	**64**	**55**

StatLink http://dx.doi.org/10.1787/141207418010

1. Unweighted averages over 60 months of unemployment, for earnings levels of 67% and 100% of AW. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (*i.e.* monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be inactive with no earnings. Children are aged four and six and neither childcare benefits nor childcare costs are considered.
2. AW value not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

Box 3.1. **Update of the OECD summary measure of benefit entitlements (1961-2005)**

Gross replacement rates (GRRs) express gross unemployment benefit levels as a percentage of previous gross earnings. NRRs shown in the previous section provide a more complete measure of work incentives and income maintenance, especially when compared over longer periods. GRRs are reported here in order to maintain and update existing GRR time-series. As part of the *OECD Jobs Study* (OECD, 1994), an index was constructed for OECD member countries summarising gross (*i.e.* before tax) unemployment benefit entitlements relative to gross earnings. The index is the unweighted average of 18 GRRs: three household types (single, dependent spouse and spouse in work); three time periods (the first year, the second and third years, and the fourth and fifth years of unemployment); and two earnings levels (average earnings and two-thirds of this level). The summary measure of generosity index as included in Table 3.4 and Figure 3.4 is calculated for all odd numbered years from 1961 to 2005.

Table 3.4. **Gross replacement rates for three family types over a five-year period, 2005**

Average of ⅔ and 100% of average production worker (APW) earnings levels

	First year			Second and third year			Fourth and fifth year			Overall average
	Single	With dependent spouse	With spouse in work	Single	With dependent spouse	With spouse in work	Single	With dependent spouse	With spouse in work	
Australia	24	43	0	24	43	0	24	43	0	22
Austria	41	45	33	39	43	1	39	43	1	32
Belgium	46	46	43	39	46	31	39	46	31	41
Canada	35	35	35	0	0	0	0	0	0	12
Czech Republic	18	19	18	0	0	0	0	0	0	6
Denmark	63	63	63	63	63	63	32	32	32	49
Finland	53	53	53	38	38	36	24	24	18	35
France	61	61	61	42	45	28	27	27	0	39
Germany	38	44	38	20	35	0	15	27	0	24
Greece	36	37	36	5	6	0	0	0	0	13
Hungary	38	38	38	0	0	0	0	0	0	13
Iceland	45	45	45	45	45	45	45	45	45	45
Ireland	33	55	33	33	55	4	33	55	0	34
Italy[1]	56	56	56	42	42	42	0	0	0	33
Japan	23	24	22	0	0	0	0	0	0	8
Korea	27	27	27	0	0	0	0	0	0	9
Luxembourg	80	80	80	0	0	0	0	0	0	27
Netherlands	70	72	70	35	36	35	0	0	0	35
New Zealand	30	49	0	30	49	0	30	49	0	26
Norway	62	67	62	37	43	31	0	0	0	34
Poland	34	34	34	0	0	0	0	0	0	11
Portugal	67	67	67	57	63	34	0	0	0	40
Slovak Republic	25	25	25	0	0	0	0	0	0	8
Spain	63	63	63	45	45	30	8	8	0	36
Sweden	75	75	75	3	3	3	0	0	0	24
Switzerland	75	75	75	24	27	19	0	0	0	33
Turkey	28	28	28	0	0	0	0	0	0	9
United Kingdom[2]	17	27	9	17	27	0	17	27	0	16
United States[2]	30	32	27	6	11	0	6	11	0	13

StatLink http://dx.doi.org/10.1787/141277122110

1. In Italy, figures correspond to Mobility Benefits.
2. In order to preserve consistency with the previous publication [OECD (2004), *Benefits and Wages*], social assistance in the United Kingdom and Food Stamps in the United States are included.

Source: OECD Tax-Benefit Models.

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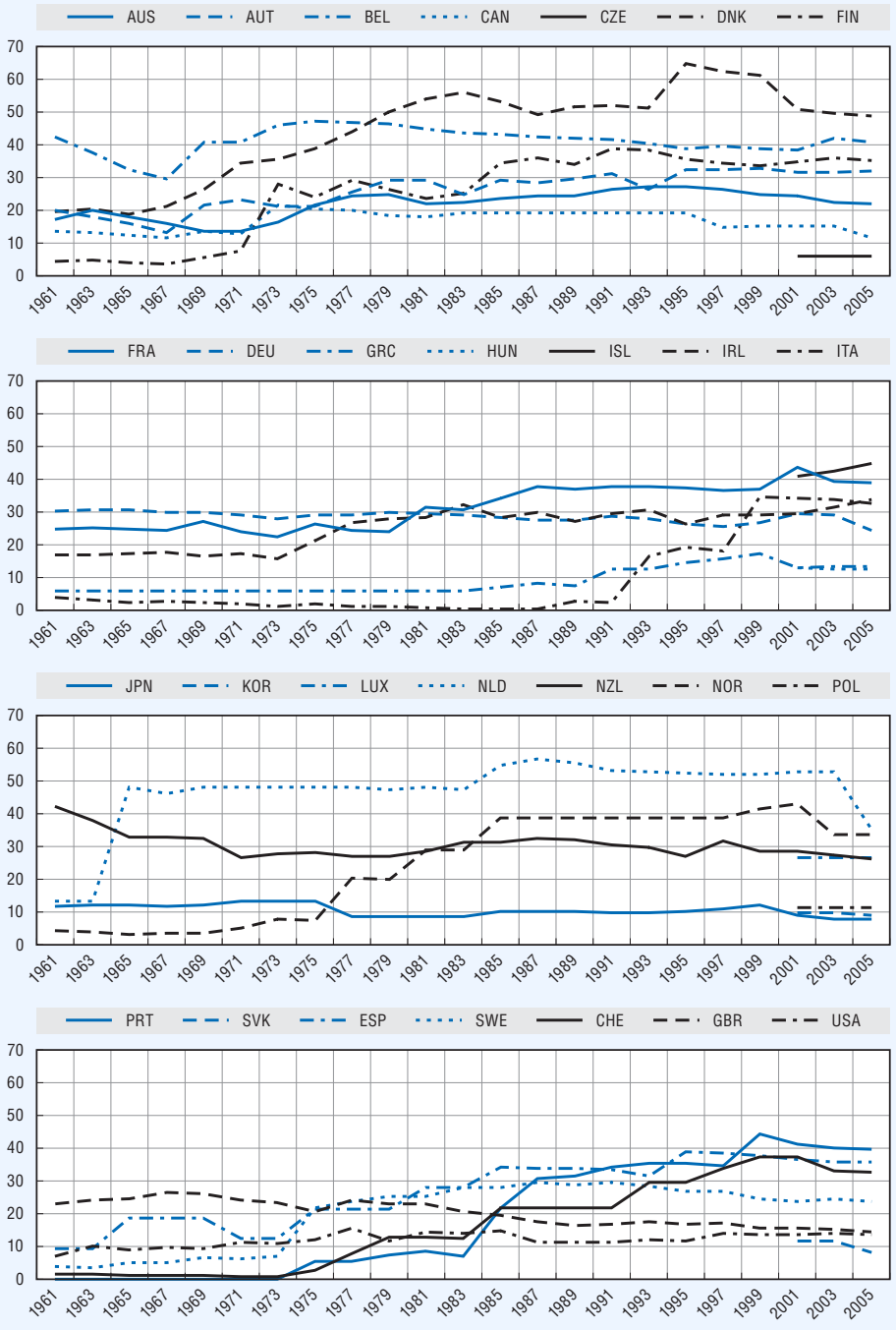
Box 3.1. **Update of the OECD summary measure of benefit entitlements (1961-2005)** *(cont.)*

Figure 3.4. **The OECD summary measure of benefit entitlements,**[1] **1961-2005**

In percentage



StatLink http://dx.doi.org/10.1787/141142156001

1. The OECD summary measure is defined as the average of the gross unemployment benefit replacement rates for two earnings levels, three family situations and three durations of unemployment. For further details, see OECD (1994), *The OECD Jobs Study* (Chapter 8) and Martin, J. (1996), "Measures of Replacement Rates for the Purpose of International Comparisons: A Note", *OECD Economic Studies*, No. 26. Pre-2001 data have been revised. The numerical values underlying the time-series graphs, including any revisions, are available at *www.oecd.org/els/social/workincentives*.

Source: OECD Tax-Benefit Models.

To enable readers to construct overall generosity indices using alternative weights for different family situations, Table 3.3 shows the NRR overall measure separately for the four family types. NRRs tend to increase with family size and the presence of children. This pattern is, however, more pronounced in Australia, Canada, the Czech Republic, Hungary, Norway, Poland and the United States, while there are less differences in several continental European countries.

Previous editions of *Benefits and Wages* as well as studies following the *OECD Jobs Study* made use of a conceptually different summary measure of benefit entitlements which is based on gross rather than net replacement rates. Box 3.1 provides an update of this summary measure to 2005. Box 3.2 discusses underpinning assumptions and limitations of this concept.

Box 3.2. **Limitations and assumptions used for computing GRRs**

Social assistance benefits are not generally included in the GRRs used in construction of this index, unless there is a general entitlement. Where they have been included, "typical" rates of social assistance benefits have been used since entitlements may in fact vary by region or pattern of household expenditure. In some countries, contributions to unemployment insurance funds are voluntary. Where this is the case (Denmark, Finland and Sweden), results have been weighted by the proportion of the workforce covered by the scheme.

In France, for the years 1975-83, replacement rates are an average with a weight of one-quarter on a case that qualified as an "economic" lay-off (receiving the *allocation supplémentaire d'attente* and later allocation special benefits) and the replacement rates for regular benefits receiving a three-quarters weight. In Italy, the *Cassa Integrazione Generale* (CIG) has not been included, as recipients are not usually classified as unemployed. However, for 1993 and 1995, the Mobility Benefit, paid to those who become unemployed as a result of a collective lay-off, is weighted by stocks of beneficiaries. From 1997 to 2005, Italy figures correspond to Mobility Benefits.

The above assumptions and other limitations of the index are discussed in greater detail in Annex 8.A of the *OECD Jobs Study* (1994). A more detailed breakdown of GRRs for unemployment durations shorter than one year is available on the Internet at *www.oecd.org/els/social/workincentives*.

Relationship of the index to NRRs

The GRRs presented here differ from NRRs in the following ways:

- GRRs are calculated in relation to the wage of an average production worker (APW). All other indicators presented in this volume are based on the broader AW measure (see Annex A).
- Tax and social security contributions on earnings and on benefits are not taken into account. If tax systems are progressive, then taxes paid while in work will be a greater percentage of income than during unemployment. This decrease of in-work income in relation to out-of-work income is captured by NRRs, which will therefore tend to be higher than GRRs. Furthermore, changes in the tax treatment of benefits will mean that the time series of GRRs will appear different from that of NRRs.
- No children are included in the household types considered in the index. It therefore does not capture the effects of changes in family-related benefits. The absence of such benefits will generally lead GRRs to be lower than NRRs.

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Box 3.2. **Limitations and assumptions used for computing GRRs** *(cont.)*

- No housing benefits are included. As results from Sections 2 and 3 show, these benefits can provide a significant part of income for households without earnings. GRRs will again be lower than NRRs.
- Social assistance is not included in most countries, unless it consists of a general income guarantee at nationally determined level. In the part of the index reflecting incomes in years 4 and 5 (and even years 2 and 3), benefit income is therefore assumed to be zero in many countries. Were it to be assumed that social assistance was paid, average GRRs would be higher.
- In-work benefits are not included. In countries where they exist, the exclusion will, at certain earnings levels, tend to reduce NRRs in relation to GRRs since in-work incomes are higher when in-work benefits are taken into account.

3. Barriers to moving back into work: inactivity and unemployment traps

Net replacement rates such as those discussed in the previous section show the relative drop of household incomes when one person becomes unemployed. NRRs are thus a suitable indicator for the adequacy and generosity of out-of-work benefits, and tax-benefit systems more generally. Yet, in the case of households with more than one potential earner, the fact that other earnings in the household largely determine the level of NRRs makes it not an ideal indicator of the influence of the tax-benefit system on financial work incentives. For someone considering a move into work, the more relevant question is what part of any gross earnings adds to available income or, equivalently, what part is effectively "taxed away". The average effective tax rate (AETR) is the relevant measure for addressing this question. It measures by how much benefits decrease and taxes increase when entering employment.

This measure can thus be used as an indicator of "unemployment traps" when entering employment from a situation of receiving unemployment benefits, and of "inactivity traps" when entering employment from a situation of "inactivity" (*i.e.* without receiving unemployment benefits). A high AETR indicates that transitions into work result in small or no gain in net incomes (see, for instance, Carone *et al.*, 2004). The AETR should not be confused with measures of effective tax burdens, which are usually shown as a percentage of gross earnings for a particular employee but do not relate to any transition between in- and out-of-work situations.

Compared to the NRR, the AETR is a better indicator of the influence of the tax-benefit system on individual financial work incentives because it relates the change in net household income to the change in gross earnings when taking up work and is therefore not directly affected by the level of any earnings received by other household members. It is defined as:

$$AETR = 1 - \frac{\Delta y_{net}}{\Delta y_{gross}} = 1 - \frac{y_{netIW} - y_{netOW}}{y_{grossIW} - y_{grossOW}} \qquad [2]$$

As in equation [1] above, y_{netIW} and y_{netOW} are, respectively, household net income while in and out of work, while $y_{grossIW}$ and $y_{grossOW}$ denote household gross earnings in and out of work (earnings in the latter case are zero, by definition). The second term thus represents that part of any gross earnings increase that ends up adding to net household

income. One minus this fraction is therefore the part of the gross earnings increase that is "taxed away" through increased taxes and reduced benefit payments. Gross earnings are wages and salaries paid to employees before deducting taxes and compulsory employee social security contributions.[10] Net incomes are gross earnings plus any public benefits received minus income taxes minus own compulsory contributions.

AETRs for a transition from unemployment into work are shown in Table 3.5.[11] Panel A provides the resulting indicators for the year 2001 and Panel B) for the year 2005.[12] As with NRRs, the numbers relate to an employment transition of one particular household member (*i.e.* in multi-person households, the employment status of all other individuals is assumed to remain unchanged). Calculations assume that the person making the transition into work has recently become unemployed and receives the benefit amounts that are available in the first month of benefit receipt (*i.e.* following any waiting period). Those benefits are based on the assumption of previous full-time work with earnings at the AW level. AETRs are then calculated for this person re-entering employment at different working hours ranging from 1/3 to full-time. Calculations do not take into account social assistance benefits as they are assumed not to be available given the short time spent in unemployment.

It should be stressed that the AETR results are sensitive to the assumptions above. Assuming transitions from long-term unemployment or inactivity ("inactivity traps") rather than from short-term unemployment ("unemployment traps") will tend to result in lower AETR values. Assuming previous earnings lower than AW can also influence AETR values in countries where unemployment benefits are earnings related and/or where minimum benefit levels exist. Carone *et al.* (2004) have computed "Unemployment Trap" and "Inactivity Trap" indicators that are conceptually equivalent to AETRs. That study also shows results for a number of different transitions including re-employment of an unemployed person with below-average previous wages.[13]

Table 3.5 shows that there are situations where it does not pay to take up work – AETRs are 100% or higher. This is more often the case when moving into employment at lower earnings or reduced working hours (one-third or half the previous level). On the other hand, there is no country where returning to full-time work at AW is associated with AETRs in excess of 90%. In general, above-average AETRs are recorded in Belgium, the Czech Republic, Germany, Italy, Luxembourg and Turkey.

Very high rates for those entering part-time employment can act as a strong disincentive to take up employment at lower earnings levels or working hours than in the previous job. They often arise because of the complete withdrawal of unemployment benefits once earnings or working hours exceed an allowed maximum set at relatively low levels (*e.g.* in Belgium, the Czech Republic, Italy or Turkey, see Table 1.1, Column 11). Unemployed individuals facing such high AETRs may therefore not take up existing employment opportunities or may feel encouraged to do so informally.

On the other hand, several countries exhibit much lower levels of AETRs, of 50% or below. This is the case for instance in Australia, Greece, Ireland, Japan, Korea, New Zealand, Portugal, the United Kingdom and the United States, depending on the family type and working hours in the new job. Low AETR levels can occur in the context of quite different policy setups, including:

- Low out-of-work benefits.
- Low tax and contribution burdens for employees.

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Table 3.5. **Average effective tax rates for short-term unemployed persons re-entering employment**

Panel A. 2001, different working hours, in percentage[1]

	0 >> ⅓						0 >> ½						0 >> ⅔						0 >> full-time					
	No children			Two children			No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	69	59	19	35	68	57	69	56	20	46	68	55	60	51	24	51	70	55	51	45	26	56	67	47
Austria	64	64	70	69	69	70	76	77	81	80	80	81	83	83	88	90	92	91	69	70	73	74	75	75
Belgium	94	79	85	80	72	85	96	88	84	88	83	84	86	77	77	76	73	77	76	69	70	70	66	70
Canada	72	73	72	56	60	83	84	84	83	73	75	93	89	89	89	83	85	97	73	73	72	78	79	80
Czech Republic	124	133	139	136	139	128	98	95	100	94	96	102	81	80	81	79	75	90	63	66	63	73	64	70
Denmark	77	77	77	80	79	81	78	77	78	82	80	80	78	76	78	83	81	80	79	77	78	84	82	79
Finland	74	83	67	82	81	67	73	85	69	85	85	69	69	78	65	80	83	66	73	79	70	83	85	74
France	79	77	80	81	81	77	76	73	76	75	75	74	76	73	76	75	74	75	79	76	78	77	76	77
Germany	70	67	95	70	70	91	101	101	120	106	108	127	88	84	102	92	95	108	78	73	87	80	81	90
Greece	16	33	16	39	39	16	27	27	16	31	31	16	56	60	48	65	68	54	47	49	42	52	54	45
Hungary	101	101	101	100	100	101	81	79	79	70	70	79	71	71	69	64	64	69	65	65	64	61	61	64
Iceland	56	37	60	66	40	66	79	70	81	86	75	86	68	53	70	76	58	76	58	47	60	66	53	66
Ireland[2]	33	47	28	16	56	40	36	47	35	–13	45	44	40	50	40	10	57	48	41	50	42	32	54	48
Italy	126	136	118	152	160	115	92	93	92	100	104	96	77	76	77	73	73	81	65	66	65	67	66	70
Japan	14	10	19	10	10	19	15	11	18	11	10	23	68	65	71	65	63	74	52	50	54	50	48	56
Korea[2]	–49	–49	–48	–46	–49	–48	4	4	4	6	4	4	50	50	50	51	49	50	38	37	38	38	37	38
Luxembourg	84	80	72	83	76	72	90	87	82	89	85	82	93	91	87	92	89	87	90	88	86	93	89	89
Netherlands	72	72	71	71	73	70	76	76	75	75	76	74	73	72	72	72	72	71	77	76	76	76	77	76
New Zealand	67	48	43	53	48	59	66	46	36	59	46	55	64	47	32	69	50	47	52	47	29	69	53	39
Norway	74	74	74	86	75	75	74	74	74	86	75	75	74	74	74	83	75	75	75	74	75	81	75	77
Poland	105	76	70	76	76	83	96	98	73	79	79	82	80	82	63	71	71	70	65	66	54	66	66	58
Portugal	62	62	65	62	62	65	81	78	84	78	78	84	113	111	116	108	108	116	86	82	87	82	80	88
Slovak Republic	130	129	146	129	129	146	102	100	104	99	98	104	82	86	83	84	85	88	64	65	64	67	66	67
Spain	74	72	74	81	81	87	74	72	74	81	81	85	74	72	74	81	81	84	71	70	71	79	79	81
Sweden	77	77	77	84	84	77	77	77	77	84	82	77	77	77	77	84	80	77	77	77	77	83	79	77
Switzerland	75	75	71	83	84	79	76	79	74	83	84	81	77	79	75	84	84	82	78	79	77	86	87	84
Turkey	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
United Kingdom	79	66	45	39	39	49	78	70	41	38	37	43	68	68	38	51	50	41	56	56	36	54	54	38
United States	69	69	69	31	33	69	69	69	69	43	43	69	77	77	77	57	55	75	71	71	71	64	62	73

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1. Results relate to the situation of a person who has just become unemployed and receives unemployment benefits (following any waiting period) based on previous earnings equal to AW. Hourly earnings following the subsequent transition into work correspond to the AW level throughout so that a person making a transition into a half-time job would have total earnings equal to 50% of AW. No social assistance "top-ups" are assumed to be available in either the in-work or out-of-work situation. In-work benefits that depend on the transition into work are available. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (*i.e.* monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. Person assumed to be aged 40 with 22-years employment history. Children are aged four and six and neither childcare benefits nor childcare costs are considered. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be inactive with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple.
2. AW value is not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

Table 3.5. **Average effective tax rates for short-term unemployed persons re-entering employment** *(cont.)*

Panel B. 2005, different working hours, in percentage[1]

	0 >> ⅓						0 >> ½						0 >> ⅔						0 >> full-time					
	No children			Two children			No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	72	61	20	40	69	46	67	55	22	49	74	49	58	50	25	56	73	50	49	44	27	56	66	45
Austria	67	67	72	83	83	73	78	95	82	101	103	83	82	83	87	87	89	91	70	70	73	73	74	76
Belgium	102	85	94	90	85	94	95	83	82	88	81	82	85	75	76	77	73	76	76	67	69	70	66	69
Canada	75	75	74	62	65	84	85	85	85	77	79	94	90	90	90	86	88	97	72	73	71	79	80	79
Czech Republic	124	131	137	116	114	129	96	96	99	85	81	103	78	82	81	77	66	85	62	66	64	72	62	69
Denmark	76	76	76	77	77	80	76	76	76	79	79	79	75	75	75	80	80	78	78	76	75	81	81	77
Finland	63	86	63	80	80	64	66	81	66	83	83	66	64	75	64	77	80	64	68	76	68	80	82	72
France	72	69	73	68	68	70	75	72	76	72	71	74	74	70	74	70	69	72	77	74	76	73	72	76
Germany	78	78	105	76	81	103	101	101	120	105	105	127	88	84	102	93	93	108	77	73	86	80	79	90
Greece	40	40	16	49	49	16	32	32	16	38	38	16	57	60	45	67	70	51	51	53	43	55	57	44
Hungary	95	95	95	95	95	100	72	75	72	82	67	75	62	65	62	65	65	65	61	62	61	64	64	62
Iceland	62	40	63	68	42	69	85	75	85	90	81	90	73	59	74	79	64	79	63	53	63	68	58	69
Ireland[2]	32	54	23	22	61	31	37	53	33	–20	43	38	41	56	40	9	54	44	42	54	42	32	58	45
Italy	144	158	145	180	187	155	106	109	106	119	122	109	89	91	89	90	89	92	72	75	72	77	77	75
Japan	15	13	18	12	12	18	16	15	18	13	12	18	67	65	68	64	63	72	52	51	53	49	49	55
Korea[2]	–29	–29	–29	–27	–29	–29	18	17	18	19	17	18	45	45	45	46	45	45	35	35	35	35	34	34
Luxembourg	79	73	69	81	69	69	87	83	80	88	80	80	90	88	85	91	86	85	90	87	86	93	89	89
Netherlands	71	71	68	70	75	66	75	75	73	75	78	72	72	70	70	71	72	69	76	75	75	76	76	75
New Zealand	60	41	47	48	41	61	64	41	39	56	42	58	62	44	35	66	48	50	51	47	31	69	55	42
Norway	74	74	74	86	76	76	74	74	74	86	76	76	74	74	74	84	76	76	74	74	74	81	76	76
Poland	104	75	69	75	75	75	98	81	75	81	81	81	82	83	65	99	72	71	66	67	55	85	68	59
Portugal	42	42	45	42	42	43	68	66	71	66	66	70	113	111	116	108	108	115	86	81	87	83	79	87
Slovak Republic	89	89	89	74	74	89	64	63	71	54	53	71	56	51	61	48	43	61	47	39	50	42	34	51
Spain	73	70	73	80	80	87	73	70	73	81	80	85	72	71	72	81	80	85	70	69	70	79	79	81
Sweden	74	74	74	82	81	74	74	74	74	82	79	74	74	74	74	82	77	74	74	74	74	80	76	74
Switzerland	75	74	71	81	81	79	76	79	74	83	82	81	77	79	75	88	83	82	78	79	77	87	89	84
Turkey[2]	109	109	109	109	109	109	81	81	81	81	81	81	69	69	69	69	69	69	57	57	57	57	57	57
United Kingdom	79	67	44	61	57	52	78	71	40	67	64	46	68	68	38	73	71	43	57	57	37	68	68	39
United States	68	66	68	34	30	68	68	66	68	42	40	68	76	74	76	54	50	75	71	69	71	62	58	72

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1. Results relate to the situation of a person who has just become unemployed and receives unemployment benefits (following any waiting period) based on previous earnings equal to AW. Hourly earnings following the subsequent transition into work correspond to the AW level throughout so that a person making a transition into a half-time job would have total earnings equal to 50% of AW. No social assistance "top-ups" are assumed to be available in either the in-work or out-of-work situation. In-work benefits that depend on the transition into work are available. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (*i.e.* monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. Person assumed to be aged 40 with 22-years employment history. Children are aged four and six and neither childcare benefits nor childcare costs are considered. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be inactive with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple.
2. AW value is not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

- Generous earnings disregards, *i.e.* the possibility of combining benefits with a certain level of earnings. These disregards, while improving work incentives for those with low earnings, can cause higher AETRs higher up the earnings distribution where such disregards are no longer available. They therefore tend to support work incentives for lower-paid jobs at the expense of better-paid employment opportunities.
- In-work benefits that top up in-work earnings for those working at particular wage levels or more than a certain minimum number of hours. By introducing minimum earnings or working-hours thresholds, these benefits can be targeted to groups with particularly poor work incentives and labour market opportunities.

For instance, several countries operate gradual unemployment benefit phase-outs (*e.g.* Denmark, Spain, Sweden and the United States) or disregard a certain level of earnings or income from working a certain number of working hours (*e.g.* Austria, Finland, Germany, Korea and Portugal). This may result in lower AETRs for those taking up low-paid or part-time employment. Unemployment benefits in Switzerland are calculated as a proportion of the difference between previous and current earnings and therefore provide an opportunity for benefit recipients to improve their income situation by accepting temporary jobs paying less than the previous one. In Korea and Japan, unemployed persons finding a regular job before unemployment benefits expire can receive part of the remaining benefit payments they would otherwise be entitled to (the so-called re-employment allowance which operates as a type of in-work benefit). This measure thus provides incentives to re-enter employment and, given that the allowance depends on the remaining duration of unemployment benefits, to do so as early as possible. In Korea, the combination of earnings disregards and the flat-rate in-work benefit even results in negative AETR values for those entering part-time or lower-wage jobs, *i.e.* net rewards from taking up work exceed gross earnings. In other countries, those entitled to receive in-work benefits also exhibit lower AETRs (*e.g.* in Australia, Ireland, New Zealand or the United Kingdom).

AETRs also tend to be low in countries where out-of-work incomes are comparatively low. This is the case, for instance, in Australia, Greece, Hungary, New Zealand, Turkey and the United Kingdom (see Figure 2.2). However, as shown in Chapter 2, this may go hand in hand with higher risks of poverty for unemployed persons and their families.

Comparing across family types, Table 3.5 shows that unemployed people with working spouses face higher AETRs than unemployed with inactive spouses in some cases (*e.g.* Belgium and Germany). For potential second earners, barriers to moving into work can be particularly pronounced in countries where spouses' incomes are assessed jointly for the purpose of determining tax liabilities or benefit entitlements. In these cases, taking up employment not only reduces or stops entitlement to the individual's own unemployment benefit but can also reduce benefits received or increase taxes paid jointly by the couple or family as a whole. On the other hand, Australia, Greece and the United Kingdom exhibit markedly lower AETRs for unemployed persons with working spouses. In Australia, this is mainly due to unemployment benefits which are low compared to most other countries and also means-tested. As a result, the unemployed person with a working spouse with moderate or higher earnings does not receive any unemployment benefits in the first place and is, therefore, not affected by any benefit withdrawal upon taking up employment.

Looking at the trend between 2001 (Panel A in Table 3.5) and 2005 (Panel B), it turns out that AETRs have changed little in a majority of countries, generally in the order of less than

5 percentage points. Where sizeable changes occurred, they were generally limited to the lower-earnings range, *i.e.* for jobs paying one-third or half of the average wage. Sizeable increases in AETRs for some family types were recorded in Austria, Belgium, Germany, Greece, Italy, Korea, Poland and the United Kingdom. On the other hand, AETRs decreased in the Czech Republic, Finland, France, Portugal and the Slovak Republic. Italy and the Slovak Republic are the only countries where changes occurred across the entire earnings range, and for all family types.

Increases in AETRs were often due to the fact that unemployment benefits started being phased out more rapidly, impeding the accumulation of benefits with earnings. In Austria, this concerned lone parents and one-earner couples with children, combined with higher tax credits for jobless parents in low-income families. This pushed AETRs over 100% for these family types when taking up half-time work. In Belgium and Germany, the increase concerned all family types but in the lowest earnings range only. In Belgium this is due to a reduction in an unemployment benefit supplement (*supplément horaire*). In Germany, the disregard amount has not changed in absolute terms, but given higher average wages in 2005, a smaller fraction of gross earnings is now disregarded before benefits are reduced.

There are other factors that have reduced financial work incentives since 2001. In Greece, the maximum earnings limit for receiving housing benefits has dropped (from about 35% to 25% of AW for one-adult households), which increased AETRs when taking up work at low earnings levels. In Italy, one key policy change introduced in 2005 concerned the ordinary unemployment benefit scheme. Benefit rates were increased from 40% to 50% of previous earnings in the first six months. In Korea, the relative value of the in-work benefit ("re-employment allowance") decreased at the same time as the relative value of the unemployment benefit. The latter change actually implies higher AETRs in 2005 as long as earnings can be accumulated with unemployment benefit (until about 50% of AW), but lower AETRs for earnings levels above this benchmark. In Poland, AETRs increased only for lone parents moving into 2/3 or full-time work. This is due to the new lone-parent benefit to which unemployed and employed lone parents are entitled alike. The new benefit is withdrawn earlier (around 60% AW) than the former regular (though much lower) family benefit (at 140% AW). Similarly, higher family benefits, which improve incomes both in and out of work, had the effect of pushing up AETRs for lone parents and one-earner couples with children in the United Kingdom.

Reductions in AETRs between 2001 and 2005 were highest in Portugal and the Slovak Republic. In Portugal, persons in part-time employment whose income is below the unemployment benefit, are entitled to a benefit equal to the difference between 1.35 times the unemployment benefit and the value of part-time work earnings. Prior to 2003, the multiplier was 1.25. In the Slovak Republic, a combination of factors lead to a considerable decrease in AETRs: re-organisation of unemployment benefits along other related benefits, introduction of an in-work benefit and of a tax credit for children and somewhat lower taxation of earnings (see Chapter 5).

In the Czech Republic, taxpayers started being entitled to a tax credit for each child in 2005. This increased net income in work and hence lowered AETRs for families with children. In Finland, the "earned income allowance for low-income earners" (shown as an in-work benefit in Section 1) has been extended, which lowered AETRs at least in some cases. In France, tax burdens for low-wage earners have been lowered to some extent.

4. Changing working hours or work effort: low-wage traps

As with the barriers to leaving unemployment or inactivity, a combination of tax increases and benefit withdrawals can reduce the financial incentives for increasing working hours or work effort for those already in work. Marginal effective tax rates (METRs) can be used to measure the size of any such disincentives. For low-income groups, METRs are useful indicators of so-called "low-wage traps"; situations where increasing gross earnings results in no or very little net income gains.

To "make work pay" it is essential that any work disincentives facing employees are understood and measured alongside the "unemployment traps" discussed in the previous section. This section evaluates METRs for a range of working-hours transitions. METRs are computationally similar to AETRs, except that they are calculated for a transition between different in-work states rather than for a move between unemployment and employment. Similar to the AETR, they are defined as:

$$METR = 1 - \frac{\Delta y_{net}}{\Delta y_{gross}} = 1 - \frac{y_{netB} - y_{netA}}{y_{grossB} - y_{grossA}} \quad [3]$$

and measure the part of any change in gross income y_{gross} that is absorbed or, in the case of positive Δy_{gross}, "taxed away" through changing taxes and benefits. *A* and *B* in the second part of the equation denote two different labour market states (earnings levels with regard to AW). Analytically, it can be desirable to compute METRs for very small changes of y_{gross}. However, for the purposes of this publication, it is more useful to evaluate METRs for realistic changes in earnings and, particularly, working hours that employees may consider when evaluating the relative attractiveness of different degrees of work effort. The definition of gross and net incomes is the same as for AETRs shown above except that y_{net} does not include any unemployment benefits as individuals are not unemployed.

As in previous sections, changes in net incomes are evaluated for the household as a whole since the additional gross earnings of one individual can affect the taxes paid and benefits received by other household members. Results for three different working-hours transitions are shown in Table 3.6: moving from half- to full-time; from 1/3 to 2/3 of full-time hours; and from 2/3 of full-time hours to full-time work.[14]

Largely as a result of benefit withdrawals at very low earnings levels, METRs tend to be higher when doubling working hours from to of full-time hours, than when moving from half- to full-time work or from 2/3 to full-time work. METRs in excess of 90% can be found in eight countries: Denmark, Finland, Ireland, Japan, Luxembourg, Norway, Poland and Sweden. These high rates concern particularly one-earner couples as these are, for any given level of earnings, more likely to receive means-tested benefits such as social assistance. In many countries, these benefits are withdrawn at higher rates as earnings increase and can therefore severely reduce the immediate financial reward of longer working hours. Where benefits are withdrawn based on gross rather than net earnings (*e.g.* Luxembourg), the combination of higher taxes and lower benefits can cause METRs in excess of 100% and therefore make additional work effort unrewarding in the short term.

METRs are lower (often below 20%) in countries where tax burdens are small (*e.g.* Korea) or where means-tested benefits play less of a role (*e.g.* Greece and Spain). For shorter working hours, METRs can also be lower in cases where some benefit payments are conditional on having employment income of a certain minimum level or are conditional on working a certain minimum number of hours. For transitions from 1/3 to of full-time

Table 3.6. **Marginal effective tax rates for part-time employees**

Panel A. 2001, different working-hours transitions, in percentage[1]

	½ >> full						⅓ >> ⅔						⅔ >> full					
	No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	32	34	32	67	66	39	52	44	28	67	73	54	32	31	32	67	60	31
Austria	41	43	41	43	47	41	35	51	35	59	79	35	42	42	42	42	42	42
Belgium	56	49	56	56	49	56	56	44	59	55	42	59	57	53	56	57	53	56
Canada	33	34	31	56	57	41	30	42	27	46	54	40	35	36	32	64	65	42
Czech Republic	28	38	26	52	47	38	39	66	26	41	79	53	26	39	26	62	41	31
Denmark	51	50	49	67	73	53	84	76	53	81	95	60	54	46	50	67	61	50
Finland	47	59	43	64	76	43	56	82	35	63	96	35	45	51	45	62	68	45
France	37	27	34	37	36	30	41	40	38	53	53	32	36	29	34	30	28	31
Germany	54	46	54	54	54	53	53	50	51	70	66	51	56	50	54	54	50	54
Greece	26	26	26	23	23	25	18	18	18	16	16	18	29	29	29	27	27	27
Hungary	50	51	50	51	51	50	42	42	39	28	64	39	54	54	54	54	54	54
Iceland	38	35	39	46	42	46	34	74	39	44	77	46	38	30	39	46	38	46
Ireland[2]	30	35	30	70	48	30	46	74	25	58	75	25	30	29	30	72	40	30
Italy	37	40	37	34	28	43	29	18	36	–4	–11	49	40	47	40	55	52	46
Japan	19	18	19	35	41	18	17	45	17	80	89	24	20	18	20	18	18	18
Korea[2]	11	11	11	24	36	11	8	21	8	56	67	8	12	12	12	12	27	12
Luxembourg	39	34	35	21	37	35	43	78	31	46	95	23	42	29	37	25	15	37
Netherlands	37	44	37	45	47	38	65	79	40	63	79	40	33	32	33	33	34	34
New Zealand	35	44	22	76	57	22	60	50	22	84	56	35	29	42	22	69	54	22
Norway	38	44	38	43	55	38	40	80	34	87	105	34	41	36	41	36	36	41
Poland	34	34	34	53	53	34	65	63	34	41	72	34	34	34	34	56	56	34
Portugal	29	23	27	25	31	28	21	28	23	25	65	23	32	23	29	28	23	30
Slovak Republic	26	42	24	35	72	31	36	100	23	81	124	33	25	23	25	33	45	25
Spain	30	25	30	26	23	29	24	13	24	18	16	19	29	28	29	26	24	29
Sweden	36	48	36	55	58	36	60	86	35	49	96	35	36	36	36	54	41	36
Switzerland	29	53	29	48	67	28	66	97	27	89	113	33	29	31	30	32	36	29
Turkey	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
United Kingdom	35	43	32	71	71	32	58	70	32	63	62	32	32	32	32	61	62	32
United States	29	31	29	50	54	29	34	43	29	52	57	37	29	29	29	47	54	29

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1. Hourly earnings correspond to the AW level throughout so that a half-time employee would have earnings equal to 50% of AW. Social assistance and any other means-tested benefits are assumed to be available subject to the relevant income conditions. Children are aged four and six and neither childcare benefits nor childcare costs are considered. In-work benefits that depend on a transition from unemployment into work are not available since the person changing working hours is already in employment prior to the change. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple.
2. AW value is not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

Table 3.6. **Marginal effective tax rates for part-time employees** *(cont.)*

Panel B. 2005, different working-hours transitions, in percentage[1]

	½ >> full						⅓ >> ⅔						⅔ >> full					
	No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	32	33	32	62	57	41	45	39	30	72	76	53	31	31	31	54	52	35
Austria	45	45	45	45	45	45	36	47	36	41	62	36	45	45	45	45	45	45
Belgium	56	51	55	56	51	55	57	47	58	57	45	58	56	51	55	56	51	55
Canada	34	36	31	60	60	39	32	39	29	44	52	39	34	36	31	64	64	41
Czech Republic	28	36	28	58	43	34	34	52	26	43	59	42	29	33	29	62	55	36
Denmark	48	49	43	60	71	49	82	74	49	75	93	60	50	46	43	61	59	43
Finland	42	58	42	61	76	42	64	93	34	63	100	34	44	44	44	57	64	44
France	39	29	35	34	33	33	34	35	36	55	55	31	35	29	32	24	23	31
Germany	54	45	53	60	58	53	51	58	50	81	78	51	55	50	54	54	52	54
Greece	31	31	31	25	25	26	17	17	17	16	16	17	38	38	38	30	30	30
Hungary	49	49	49	47	61	49	31	36	31	36	70	31	57	57	57	62	62	57
Iceland	41	40	41	47	45	48	42	72	41	47	72	48	41	41	41	47	47	48
Ireland[2]	30	44	30	80	56	30	49	91	25	53	74	25	30	24	30	71	52	30
Italy	37	40	37	34	31	43	35	25	34	3	–7	49	37	42	37	49	53	39
Japan	21	20	21	40	45	24	19	52	19	86	94	26	21	20	21	20	20	20
Korea[2]	12	12	13	12	30	11	9	20	9	48	69	9	14	13	14	11	11	12
Luxembourg	37	44	33	23	50	33	51	96	28	60	110	21	41	25	35	28	19	35
Netherlands	39	46	39	50	51	40	69	81	43	54	76	43	34	31	34	37	36	35
New Zealand	36	51	24	79	66	26	63	50	22	87	59	40	30	51	25	70	64	25
Norway	36	36	36	36	51	36	38	70	31	65	90	31	36	36	36	36	36	36
Poland	35	53	35	89	60	37	65	63	35	94	81	45	35	35	35	57	58	35
Portugal	29	22	28	28	37	29	20	33	23	33	75	24	32	22	30	32	21	30
Slovak Republic	30	15	30	29	15	30	23	23	33	22	27	33	30	16	30	29	16	30
Spain	30	26	30	26	24	28	25	14	25	19	16	20	29	28	29	26	24	29
Sweden	35	45	35	51	54	35	57	82	35	52	92	35	35	35	35	49	39	35
Switzerland	29	43	28	31	52	27	56	84	26	68	89	39	28	31	29	34	39	28
Turkey[2]	33	33	33	33	33	33	31	31	31	31	31	31	33	33	33	33	33	33
United Kingdom	35	43	33	69	72	33	58	69	33	84	84	33	33	33	33	59	63	33
United States	29	23	29	46	47	30	32	37	29	41	43	38	29	24	29	46	48	29

StatLink http://dx.doi.org/10.1787/141362041723

1. Hourly earnings correspond to the AW level throughout so that a half-time employee would have earnings equal to 50% of AW. Social assistance and any other means-tested benefits are assumed to be available subject to the relevant income conditions. Children are aged four and six and neither childcare benefits nor childcare costs are considered. In-work benefits that depend on a transition from unemployment into work are not available since the person changing working-hours is already in employment prior to the change. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple.
2. AW value is not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

hours in the case of families with children, this is, for instance, evident in Italy (where family benefits increase in line with the number of days worked).

Considering changes in METRs between 2001 and 2005, there were only a handful of countries recording sizeable increases (Germany, Luxembourg and Poland) or decreases (the Czech Republic, Norway and the Slovak Republic). Again, these changes mostly happened for transitions between 1/3 to of full-time hours and for particular family types rather than across the whole range of situations considered in Table 3.6.

Where METRs increased this was often due to social assistance top-ups (Luxembourg) or family benefits (Germany and Poland) becoming relatively more important for lower than for higher income groups in years since 2001. By contrast, decreases of METRs were frequently due to sometimes considerable cuts in relative benefit levels for low and very low-income households. This concerned social assistance top-ups and housing benefits for one-earner couples in the Czech Republic, family and housing benefits for one-earner couples in Norway and, in particular, all three benefit types for single persons, lone parents and one-earner couples in the Slovak Republic (see Chapter 5).

Notes

1. It is important in this context to distinguish between "incentives" and "incentive effects". Employment levels, unemployment rates and total hours worked are not determined exclusively by the size of benefits and taxes. The actual sensitivity of labour supply to changes in net income (and, thus, taxes and benefits) varies across countries and population groups and is not studied as part of the present publication.
2. The change in gross earnings is a result of a combination of changing working hours and changing hourly wage rates. For earnings levels below 100% of average wage (AW) we consider a wage earner with average (AW) hourly earnings and working hours ranging from zero (in the earnings = 0 case) to full-time (earnings = 100). Above 100% of AW, employment is assumed to be full-time so that any additional earnings are generated by higher hourly wage rates. Annex A provides further details including a comparison of AW levels with statutory minimum wages.
3. The formal definition of the METR and related indicators is provided in Annex A.
4. In the United Kingdom, this concerns only the family benefits *strictu sensu* described in Table 1.7. The child tax credit, included in family benefits in Figure 3.1 is phased out with increased earnings.
5. Considering all OECD countries covered by the OECD tax-benefit models, this is the case in 15 out of 29 countries.
6. When comparing with results for earlier years from past editions of *Benefits and Wages* (OECD, 2004), it should be noted that the 2004 reform has replaced the Working Family Tax Credit (WFTC) with the Working Tax Credit (WTC) and Child Tax Credit (CTC). The latter has been classified as family benefit rather than IW benefit because there are no employment conditions for the receipt of CTC.
7. These are probably lower-bound estimates. The poverty line used is 60% of median equivalent household income in 2001, expressed in 2005 prices. Where median incomes grew faster than prices, applying a threshold value referring to the income distribution in 2005 would result in identifying a higher number of countries where lone-parents earnings need to exceed 67% of AW to reach the poverty line.
8. For instance, Figure 3.2a also assumes no entitlement to the German Unemployment Benefit II, which is characterised by a strict means test similar to the former social assistance programme (but combined with a stronger focus on job-search and "activation").
9. One international comparison of net replacement rates based on representative household micro-data is provided by Immervoll and O'Donoghue (2003).

10. Given the focus on current incomes, contributions paid by employers are not included in y_{gross} (see Annex A for a discussion of this assumption). Differences in employer contribution rates will therefore not affect country comparisons (except through a possible influence on wages and, therefore, the AW value).

11. For most tax-benefit instruments, the direction of the transition does not matter. However, certain in-work benefits are only available following a transition into work. For the transition into work, these benefits are thus included in y_{netIW} (while they were not included for the NRR measures which are computed for a transition from employment to unemployment).

12. The results for 2001 are not strictly comparable with results for the same year reported in (OECD, 2004, *Benefits and Wages*). This is mainly due to the change in the average wage benchmark from APW to AW (see Box A.1 in Annex A). But also, for some countries, calculation models for all years between 2001 and 2005 have been revised in line with clarifications received from country experts.

13. The role of active labour market policy reforms to combat inactivity traps is discussed in a recent study by Carcillo and Grubb (OECD, 2006).

14. The results refer to distinct transitions between these labour market states, and are not calculated as an average (or median) of very small, *e.g.* 1% changes in METRs. They thus refer to METRs for realistic changes in earnings and working hours that employees may consider when evaluating the relative attractiveness of different degrees of work effort.

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Chapter 4

Can Parents Afford to Work? Childcare Costs, Tax-Benefit Policies and Work Incentives

Introduction

Parents perform a wide range of tasks to ensure the well-being of their children and the family as a whole. While, between them, most parents face similar sets of core tasks, they adopt very different coping strategies responding, in part, to the household's specific social and economic circumstances. To an important extent, the economic context of household behaviour is shaped by government policies which seek to further a range of different, and sometimes, conflicting objectives.

Discussions in many OECD countries have recently focussed on policies affecting parents with young children.[1] Childcare policies assume a central role in these debates. Support for parental or non-parental care is granted for a number of reasons and both the objectives and the nature of support differ markedly across countries. Objectives include promoting child development and well-being;[2] encouraging parenthood; reducing gender inequities; improving incomes of disadvantaged or large families or reducing their expenditures; and, in the case of support for non-parental childcare, removing barriers to female employment and, more generally, reconciling work and family life.

Whether families manage to combine raising children with active participation in the labour market has major implications for the design and success of social policies. These links have received much attention in the context of ageing populations and the financial viability of existing welfare state regimes, most notably in the area of health and pay-as-you-go pension systems.[3] While a macroperspective on these mechanisms is needed for understanding current policy tradeoffs and the magnitude of future challenges, an obvious but less often discussed, aspect is that patterns of work and family life affect the well-being of individual families. Essentially, families benefit from measures that expand their choice of feasible patterns of work and family life. Where this choice is severely constrained, well-being ("utility") is damaged in a number of ways.

But what is the overall effect of policies in this area from the perspective of individual families? This chapter analyses and compares the impact of a range of social and fiscal policies on the budgets of families with children requiring care. It quantifies the "out-of-pocket" childcare costs faced by families in a number of different circumstances and shows how these costs are shaped by different types of policies. The analysis focuses on the *cost to parents* (rather than the *cost of childcare provision*) in order to be able to compare situations of families across countries with very different childcare institutions. In a second step, the calculations are used to examine the financial consequences of different employment and care patterns. Focusing on the circumstances of mothers of pre-school children, the objective is to understand how the cost of non-parental childcare affects the payoffs from (re-) entering employment. Childcare costs are analysed in conjunction with taxes and social benefits in order to investigate how existing policies combine to reward or penalise work efforts.

The chapter is organised as follows. Section 1 summarises patterns of childcare use and discusses possible determinants of the large differences that are observed across

countries. Section 2 presents an overview of the characteristics of institutional childcare, showing detailed information on childcare fees and benefits as provided by delegates to the OECD Working Party on Social Policy. Focussing on lone parents and second earners, this information is then combined to compute net childcare costs faced by working parents in a range of different circumstances. Finally, Section 3 evaluates the consequences of tax-benefit and childcare policies for work incentives by accounting for work-related childcare costs incurred by parents in full-time employment. Results are used to identify barriers to parental, and especially mothers', employment and implications are discussed for each policy area.

1. Use of purchased childcare

For a given family, the choice of the most appropriate childcare package (parental, professional and/or informal care) is influenced by the availability and cost of each mode of care. The proportion of children in registered (*i.e.* formal) childcare varies enormously across countries. Attendance rates for children under the age of three range from less than 10% in several central, eastern and southern European countries to more than 25% in Nordic and most English-speaking countries as well as in Belgium, France and the Netherlands (Table 4.1). The data, collected from a range of different sources, do not account for other differences in childcare patterns, such as the number of hours a child typically spends in formal care. In some cases, accounting for these can be expected to show even larger discrepancies as some countries with particularly high rates of childcare use (Nordic countries) typically provide long hours of care.

The sizable country differences are a reflection of both incomplete information on childcare use (notably a lack of consistent data on the use of informal care across countries) and the large number of factors influencing childcare arrangements. These factors include demographic and labour market characteristics as well as institutional factors such as childcare affordability, tax-benefit systems as well as other aspects of work/family-life reconciliation policies, including workplace practices and the nature of parental leave entitlements.

There are a number of potential links between women's participation in the labour market and the use of purchased childcare. In fact, one would expect causal links to run in both directions. Higher employment rates lead to increased demand for childcare services while adequate supply of such services enables women to combine work and family life.

Another potential link works via the supply of informal care. This type of care can be especially important in countries where extended family networks are common. Since childcare (both formal and informal) is predominantly provided by women, their attachment to the labour market has implications for their availability as care givers. This can give rise to a crowding-out effect where higher female employment rates reduce the number of women able and willing to engage in informal childcare work.[4] In turn, this can raise the demand for formal care, reinforcing a positive association between female employment and the use of formal childcare.

Does the infrequent *use* of registered childcare then stem primarily from a shortage of childcare places or is it a consequence of limited demand for these services? This is a highly policy-relevant question. Governments wishing to address obstacles to female employment will need to know to what extent employment prospects are inhibited by inadequate supply of formal childcare or by other factors, including work practices,

Table 4.1. **Enrolment rates in childcare and early education for children under six, 2004 or as noted**

In percentage

	Under three years	Three years	Four years	Five years
Australia (2005)	29.0	55.0	64.6	90.9
Austria	4.1	45.9	82.1	93.1
Belgium	38.5	99.3	99.9	99.7
Canada (2001)	19.0	..	..	..
Czech Republic	3.0	68.0	91.2	96.7
Denmark (2005)	61.7	81.8	93.4	93.9
Finland (2003)	22.4*	37.7	46.1	54.6
France (2004)	26.0	100.0	100.0	100.0
Germany (2001)	9.0	69.5	84.3	86.7
Greece (2003)	7.0	..	57.2	84.1
Hungary	6.9	71.0	92.3	97.8
Iceland (2003)	58.7	93.3	95.1	95.9
Ireland (2000)	15.0	48.0	46.6	100.0
Italy (2000)	6.3	98.7	100.0	100.0
Japan	15.2	67.3	95.2	96.6
Korea (2005)	19.9	59.5	66.4	88.7
Luxembourg (2003)	14.0	37.9	83.5	96.9
Netherlands	29.5	32.3	74.0	98.4
New Zealand	32.1	82.1	95.1	100.0
Norway (2003)	43.7	79.4	86.9	89.0
Poland (2001)	2.0	26.1	35.7	46.2
Portugal	23.5	63.9	79.9	90.2
Slovak Republic (2004)	17.7	60.3	71.7	84.7
Spain	20.7	95.9	100.0	100.0
Sweden	39.5	82.5	87.7	89.7
Switzerland	..	7.2	34.4	89.7
Turkey	..	1.7	3.4	26.2
United Kingdom	25.8	50.2	92.0	98.2
United States (2005)	29.5	41.8	64.1	77.0

StatLink http://dx.doi.org/10.1787/141578550141

* Revised figure (February 2008).
. .: Not available.
Year of reference differs in some counties. Figures include both full-time and part-time care. Registered care includes licensed centre-based care in all countries; it also includes accredited family daycare (childminders/residential care) where this exists. For age group 3-5, all children enrolled in daycare facilities and pre-schools are included, regardless of whether these institutions are considered part of the formal education set-up in countries.
Source: OECD Family database (*www.oecd.org/els/social/family/database*).

education policies and parental-leave arrangements. It is also important to recognise links between supply and demand. Indeed, insufficient childcare capacities can conserve negative cultural attitudes towards maternal employment.

Available data on childcare use do not allow us to analyse supply and demand issues separately and on a consistent basis across countries (see Bennett, 2002, for a discussion of data needs in this area). It is, however, possible to provide a detailed analysis of the costs faced by parents. This can provide valuable clues about the reasons behind different patterns of childcare use as costs are a crucial determinant of childcare choices.

2. Quantifying net childcare costs

This section provides an overview of available information on the institutional features of policies relating to non-parental childcare. The information is then used to

derive detailed estimates of the overall cost of childcare borne by parents in a number of different situations.

A comparison of childcare policies across countries is complicated by the considerable heterogeneity of policy arrangements in this area (see Annex Tables 4.A1.1, 4.A1.2 and 4.A1.3). To facilitate a meaningful discussion of country differences it is essential to adopt a consistent terminology. In what follows, *childcare fees* are the amounts paid by parents to the childcare institution. They are the prices that the institution would advertise and are therefore measured after any *government subsidies* received by childcare providers but before any childcare-related *cash transfers*, special *rebates* or *tax concessions* available to parents.

In practice, the proper distinction between subsidies, refunds and childcare benefits is often not self-evident. Indeed, some of these instruments can be functionally equivalent. For instance, a graduated fee structure can result in the same "out-of-pocket" childcare expense as an income-related childcare benefit. While it is important to understand each of the underlying policy elements, the overall *childcare cost* is therefore the most relevant concept when thinking about childcare affordability. Childcare cost as used here is a broad measure that aims to encompass all relevant cost components irrespective of their label or the way they are administered in a particular country. It thus includes fees minus cash benefits, rebates and the value of any tax concessions.

a) Fees charged by childcare centres

The most visible determinant of childcare affordability is the fee charged by providers. Fees vary not only by country but also by type of care and, frequently, by region or municipality as well as by characteristics of children or parents. In addition, parents may choose to use combinations of different types of formal and informal care[5] or may find that an optimal childcare "package" involves a mix of different forms of parental and non-parental care.

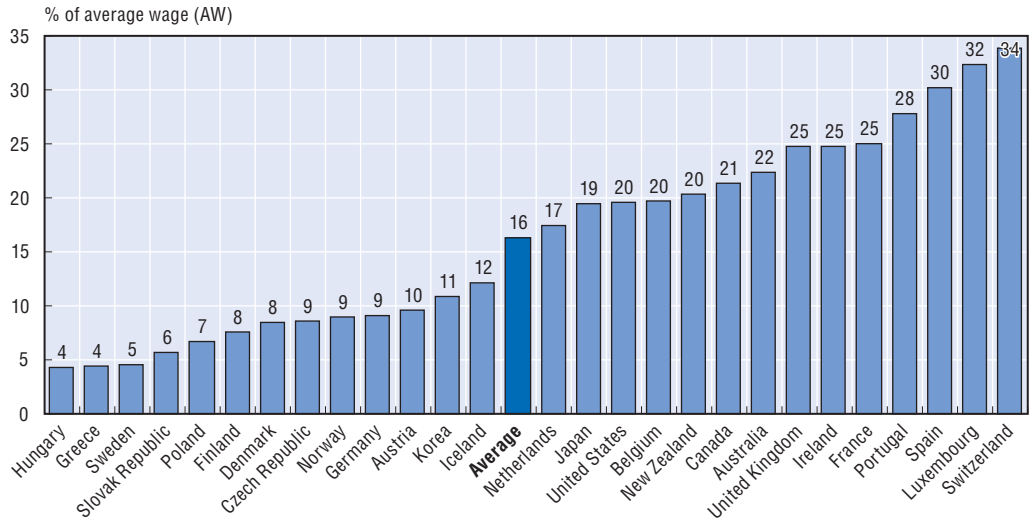
While one needs to keep in mind the heterogeneity of childcare arrangements, it is, for an international comparison, useful to focus on quite specific circumstances initially. In an effort to provide such a comparison, the OECD Secretariat has collected data on the "typical" fees charged by *accredited childcare centres for children aged two and three*.[6] As part of this data collection, delegates to the OECD Working Party on Social Policy also provided other relevant information such as how fees vary with income, family status or the child's age.

An illustration of fees charged to parents for childcare on a full-time basis is shown in Figure 4.1 (a detailed description, including how fees may vary between different types of family, is provided in Annex Table 4.A1.2). Taken across the 27 countries shown, the average "typical" fee for one two-year old in full-time care is approximately 16% of average earnings. There are very significant deviations from this simple average, reflecting, among other things, differences in market structures and government subsidies to childcare providers.[7] Relative to average earnings, fees range from 10% and less in eastern European and most Nordic countries, as well as Austria (Vienna), Germany (*Nordhein-Westfalen*) and Greece, to 30% or more (Spain, Luxembourg, Switzerland).

Country comparisons of gross childcare fees alone are, however, not very informative. *Net* childcare costs can be substantially lower, which may either moderate or further magnify the country differences shown in Figure 4.1. Childcare fees are often reduced for families in particular circumstances and, as shown below, these reductions can be both

Figure 4.1. **Only one element of net costs: fees charged by childcare centres**

Full-time fee for a two-year old[1]



StatLink http://dx.doi.org/10.1787/141366215471

Note: See Figures 4.3 and 4.4 for comprehensive estimates of *net* costs.

Fees are for one month of full-time care not taking into account reductions due to periods where childcare may not be available or required, such as vacation. Where fee information is provided per hour of care, full-time care is assumed to cover 40 hours per week. Fees are the gross amounts charged to parents, *i.e. after* any subsidies paid to the provider but *before* any childcare-related cash benefits, tax advantages available to parents or childcare refunds/rebates that are akin to benefits. Where prices depend on income or family characteristics, the *maximum* applicable fees are shown. Unless fees are rule-based or uniform across institutions, averages or "typical" fees are shown. In a number of countries, available fee information relates to a particular region or municipality: Austria (Vienna), Belgium (*Wallonie*), Canada (Ontario), Germany (*Nordrhein-Westfalen*), Iceland (Reykjavík), Poland (Olsztyn), Switzerland (Zürich) and the United States (Michigan). Full details underlying these numbers are shown in Annex Table 4.A1.2.

1. AW value is not available for Ireland and Korea. Calculations are based on APW in these countries.

Source: Country chapters of OECD Tax-Benefit Models (available at *www.oecd.org/els/social/workincentives*).

substantial and widespread. In addition, countries provide a range of cash benefits aimed at helping parents reduce the net cost of purchased childcare.

To some extent, differentiated fee structures reflect differences in the cost of service provision (such as the additional resources required for infant care, or other characteristics of childcare quality) or other market-related pricing considerations. In addition, however, governments and, to some extent, semi-private not-for-profit childcare providers use differentiated fee schedules in order to target childcare subsidies or otherwise redistribute between different types of childcare users. Such measures may aim at addressing equity concerns (ensuring accessibility of childcare for families with limited means) or demographic objectives (reducing the cost of children for larger families). They may also be designed to encourage the use of non-parental care in quite specific cases.[8] Examples are fee reductions for lone parents (to enable them to stay in employment or look for and take up a new job) or students (to allow them to complete their studies) or rebates targeted at children of certain ages (*e.g.* pre-school) so as to support their cognitive or social development.

Annex Table 4.A1.2 provides an overview of family characteristics that are typically used to administer fee concessions in OECD countries. The table shows that fees per child often decrease with the child's age. They are sometimes lower for lone parents (column "Family status") and can differ by the number of children in care. German parents in the state

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of *Nordrhein-Westfalen*, for instance, pay no additional fees for second and further children while generous rebates are available in several countries including Denmark, Finland, France, Iceland and the Netherlands. Providers in many countries operate income-dependent fee structures aimed at making childcare more affordable for low-income families.

It is important to note that, while reduced fees aim at increasing demand for non-parental care, families that are targeted by these measures may be, and often are, faced with insufficient childcare capacities with providers unable to offer places to all those who need them (see column "Provision of childcare"). That is, parents' childcare choices are not only constrained in terms of the cost but also in terms of the availability of appropriate care. Existing schemes therefore sometimes combine fee reductions with preferential access for particular groups (column "Priority access"). Granting priority access is easily justified in cases where an urgent need for non-parental care exists. Yet this approach shifts the under-supply problem from one group of parents to another and is therefore problematic if childcare-use is seen as insufficient more generally.

A more comprehensive policy solution would tackle the under-provision problem directly by removing supply-side barriers. One effective approach, adopted to different degrees by a number of countries, consists of replacing regulated fees with a combination of market prices, government support for providers and appropriately administered government transfers to parents (such as cash benefits that take into account the family situation, including the actual use of licensed childcare services). Properly implemented, such a strategy maintains supply incentives for providers (see Lundsgaard, 2002; Cleveland and Krashinsky, 2003). Compared to a system where prices are regulated, it can therefore be expected to ease problems of under-provision and create incentives for providers to improve the match between available services and parental needs (*e.g.* in terms of hours of available care). With supply-side barriers reduced, cash transfers to parents can be used to moderate net childcare costs and target support to those who need it most.

b) Childcare-related benefits and tax concessions

The structure of any financial support has crucial implications for the functioning of childcare markets and, thus, the supply of care places. Yet, for individual parents considering the cost of childcare, measures that direct financial support towards the users of childcare services can be equivalent to policies that affect the level and structure of fees charged by providers. Governments operate a number of cash transfers to encourage the use of formal childcare.

Certain types of financial support seek to further child developmental goals by supporting care patterns believed to be most appropriate for the child. These support measures tend to be widely accessible and employ little targeting towards particular families or children. Other types of support are mainly provided in recognition of the public benefits of women's participation in the labour market and, more generally, the desire to minimise any avoidable trade-offs between fertility and employment. Policies that aim to encourage work in this way frequently target benefits towards mothers whose employment behaviour is thought to be particularly responsive to changes in childcare costs (lone parents, low-income second earners). A successful overall package ensures that parents are given a real choice about their preferred care arrangements without compromising concerns for child development or women's employment chances. Balancing the different goals is, however, not always straightforward and is complicated by

the multitude of policies that influence the attractiveness of different work and care patterns. A comprehensive perspective is needed to disentangle interactions between different policy interventions and understand their net effect.

Demand-side measures aimed at supporting families with children requiring care can be categorised in terms of the channels used to deliver financial support. Childcare payments may be *tax-deductible*, partly reflecting a view that they constitute work-related expenses. Reducing the tax base with such expenses follows directly from horizontal equity considerations (taxing similar incomes similarly regardless of how they are earned), which constitute one basic principle of income taxation. In particular, existing income tax systems do not tax the implicit income from home production, including the provision of parental childcare. Allowing employed parents to claim tax exemptions for childcare expenses is then consistent with aims to limit distortions of employment decisions and, more generally, achieve a more balanced tax-treatment of families with different patterns of work in the market and at home.[9]

In principle, tax deductions strengthen work incentives by lowering tax payments for those returning to work after childbirth. Yet, the targeting tends to be weak as many lower-income earners may be exempted from paying taxes altogether or pay very low rates. High-income families who are subject to high marginal income tax rates gain more so that tax deductions tend to reduce overall tax progressivity.[10] Perhaps more importantly, support provided through the tax system is often not available at the time when parents actually incur childcare expenses but only after tax returns have been filed and approved (usually in the following fiscal year). Such delays weaken the perceived link between childcare use and support payments. Childcare users may see next year's tax reductions as a windfall rather than a consequence of their childcare choices. Moreover, future tax reductions offer little help to parents with limited budgets who cannot afford non-parental childcare in the current period. An interesting alternative policy design makes childcare expenses *deductible* from incomes relevant for calculating entitlements to *means-tested benefits*. For instance, childcare costs reduce the income basis used to assess entitlement to housing benefits in the United Kingdom. As a result, housing benefits can be higher for families purchasing non-parental care and thus reduce net childcare costs.

Tax credits can be more supportive of low-income earners than tax deductions, particularly if they are refundable (*i.e.* any portion of the credit that exceeds gross tax liabilities is paid out in cash). In this case, they are formally equivalent to cash benefits although, as in the case of tax deductions, parents may have to wait for the payments until the next fiscal year. Other types of childcare benefits operate independently from the tax system and tend to provide more immediate support. Childcare-related *cash benefits* may be targeted towards low-income families, working parents or socially disadvantaged groups, notably lone parents. Support may be conditional on using certain types of childcare such as that provided by approved institutions or specially qualified individuals.

In addition, generous support is sometimes available for parents caring for their own children at home (*home-care* or *child-raising allowances*). As long periods of complete withdrawal from the labour market harm future career prospects, these payments are detrimental to employment if they promote extended and complete career interruptions.[11] Alternatively, home-care allowances may be part of more balanced policy packages that also include effective support for purchased childcare.

Countries often operate combinations of these measures. Annex Table 4.A1.3 gives an overview of policies adopted in OECD countries. Cash benefits are available to some groups of parents of young children in Australia, Canada, France, Korea and the United Kingdom, providing partial or full compensation for certain types of childcare expenditure. This is shown in Column 1, which also specifies any restrictions in terms of the types of care that are covered (*i.e.* institutional childcare in approved daycare or nursery centres or services of professional carers at their own or the parents' home). Available tax concessions are shown alongside benefits.

While cash benefits and tax concessions help reduce the net costs of childcare to working parents, transfer payments available to parents engaged in care activities themselves increase their incomes while out of work. An overview of policies is shown in Column 2 of Annex Table 4.A1.3. These child-raising or home-care allowances are distinct from maternity payments or benefits available as part of protected parental leave mandates, which generally do not affect parents of two or three-year olds as considered in this chapter (exceptions are Austria and Poland, where parental leave benefit is available for up to 36 months). In general, these allowances are only paid to parents who have "primary care" of their children, *i.e.* parents need to be out of work or working part-time (in which case benefits may be reduced). In Denmark, Finland and Norway, the benefit payment partly reflects equity considerations as it is contingent on not using subsidised care facilities. In a few cases, benefits are (France), or have been (Austria until 2002), conditional upon past employment. The benefit is typically a flat monthly payment. Replacement rates with respect to earnings lost as a result of staying at home are therefore higher for low-earning parents. Rates may also be reduced with individual or family income above certain limits. In many countries, the maximum period of benefit entitlement can be long, exceeding 12 months by a large margin and, in a few cases, extending well into compulsory school-age (Hungary and, especially, Australia[12]). The important point that very long periods away from work can significantly damage women's future career prospects is discussed in the context of work incentives in Section 3 below.

Although benefits paid for parental and institutional childcare may co-exist (*e.g.* in Australia or Finland), many countries opt for one of the two alternatives. A small group of countries do not provide any benefits directly to families but instead subsidise childcare fees by operating public childcare facilities, contributing towards the costs incurred by private facilities, or meeting part of the fees charged by providers. As argued earlier, a fee reduction can be equivalent to a direct cash transfer to the family and a distinction can be difficult in these cases (like cash benefits, subsidies paid to providers may also depend on the particular situation of the family using childcare services). Column 3 of Table 4.A1.3 summarises information on some of these supply-side subsidies and shows that they are also widespread in countries that provide direct cash benefits to parents.

c) Summing up: parents' out-of-pocket expenses

In order to arrive at a full characterisation of how childcare costs differ across countries and family circumstances, details of the various cost components have been integrated into the OECD's tax-benefit models, including fees charged by the provider, benefits, rebates and tax concessions. Where sufficient information exists, this makes it possible to arrive at consistent estimates of net childcare costs across countries and presents a microeconomic perspective on the effects of childcare on family budgets.

One approach for quantifying the net costs of purchasing childcare is to compare all relevant taxes and benefits between a situation where a family purchases childcare and an otherwise similar situation where no childcare services are bought (*e.g.* because unpaid informal care is available). Subtracting any tax concessions and benefit amounts from the gross fee charged by the childcare provider gives the net cost to the parents, *i.e.* the net reduction of family budgets or the "out-of-pocket" expenses resulting from the use of centre-based childcare.[13] In addition, the results presented below also identify any impact of childcare use on tax burdens and "other benefits", which are not primarily childcare-related (*e.g.* family or housing benefits) but nonetheless impact on the net cost of childcare.

Results for 26 OECD countries are displayed in Figures 4.2 and 4.3 showing both the net cost of childcare and the role of individual policy instruments. The calculations relate to *full-time care* for *two children aged two and three* in a typical *childcare centre*.[14] All calculations make use of the information presented in sub-sections a and b above and refer to the types of childcare setting described there (as before, figures for some countries refer to particular cities or regions). Costs vary depending on family situation and earnings level. Five situations are shown here as an illustration:

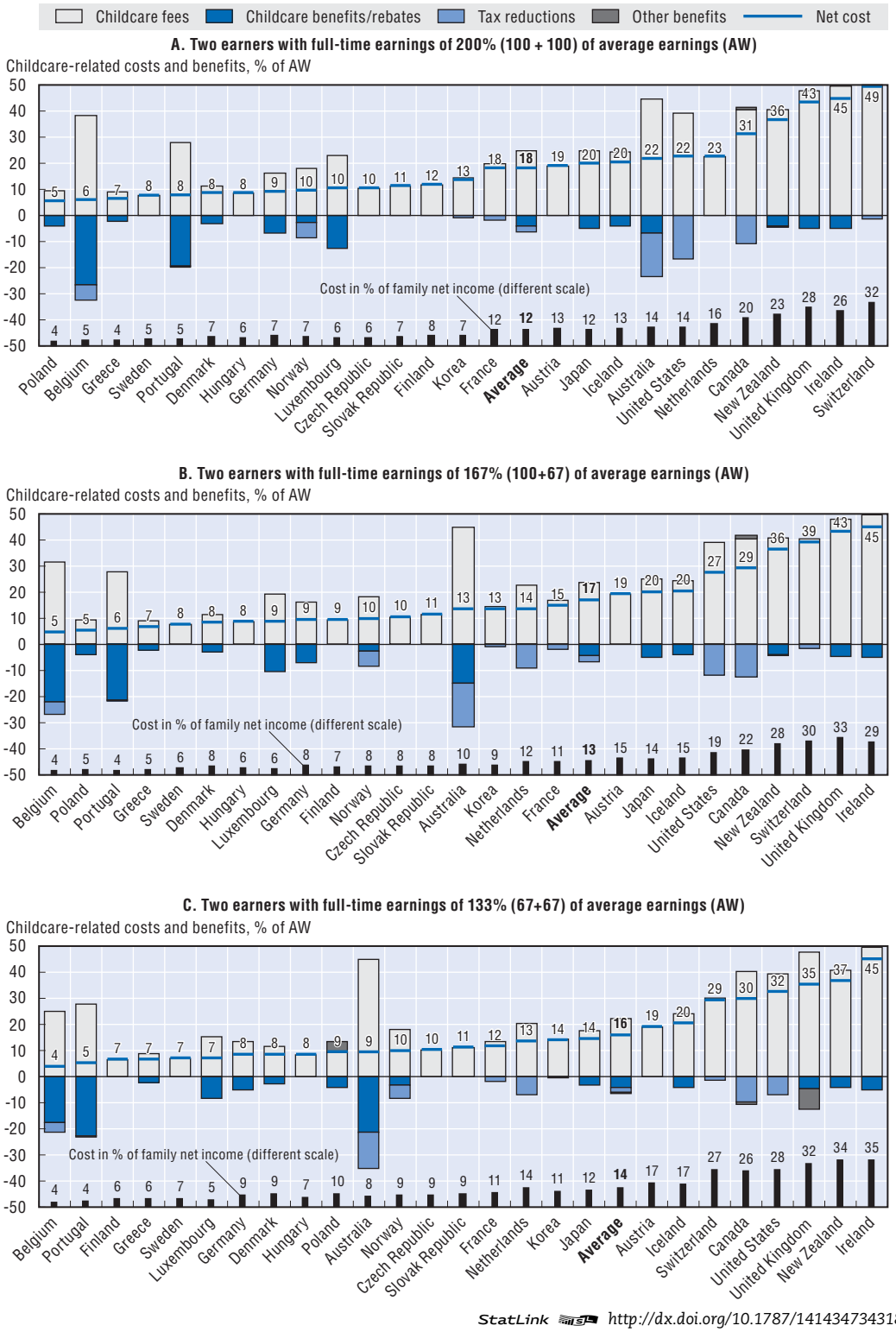
- A married couple where both spouses work full-time, both earning average wages (100% of AW).
- The same couple but with one average and one lower-earning spouse (67% of AW).
- The same couple with both spouses earning below-average wages (67% of AW).
- A full-time employed lone parent with average earnings (100% AW).
- The same lone parent with below-average earnings (67% of AW).

For parents with two young children, overall childcare costs can be very substantial, even after accounting for all relevant types of government support. Looking first at two-earner couples (Figure 4.2), the average out-of-pocket expenses for two children in full-time care are shown to be around 17% of average earnings.[15] Across countries, the range of cost estimates is very wide and, in fact, comparable to the dispersion of gross fees shown earlier.

Centre-based care is most expensive for working couples in Switzerland (Zürich) and most English-speaking countries (they are lower in Australia). In these countries, the out-of-pocket expenses of couples with two young children can consume as much as one-third of the entire family budget. This is shown by the bars at the bottom of each graph, which express childcare costs as a faction of family net income. At the other end of the spectrum is a group of mostly eastern- and northern European countries where net childcare costs for two children are less than 10% of family net incomes.[16] Net costs are also relatively low in Belgium (*Wallonie*), Germany (*Nordrhein-Westfalen*), Greece, Luxembourg and Portugal. The proportion of family incomes spent on childcare is not only determined by childcare costs but also by tax burdens. For instance, while childcare costs are, relative to average earnings, lower in Denmark than in Hungary, much higher tax burdens in Denmark reduce family budgets so that Danish families end up spending larger parts of their net income on childcare.

While some countries successfully target childcare support payments to lower-income families, inspection of the dark horizontal markers in Panels A, B and C of Figure 4.2 shows that absolute costs are practically identical for low- and higher-income families in a large number of countries. Those on lower incomes then need to spend larger portions of their budgets on childcare than better-off families. In some countries, childcare costs can even

Figure 4.2. **Out-of-pocket childcare costs for a two-earner couple: full-time care at a typical childcare centre**[1]



StatLink http://dx.doi.org/10.1787/141434734318

1. Results are for 2004. Two children aged two and three. "Family net income" is the sum of gross earnings plus cash benefits minus taxes and social contributions. All fee reductions, including free pre-school or childcare for certain age groups, are shown as rebates where possible. See Figure 4.1 and Annex Tables 4.A1.2 and 4.A1.3 for details.

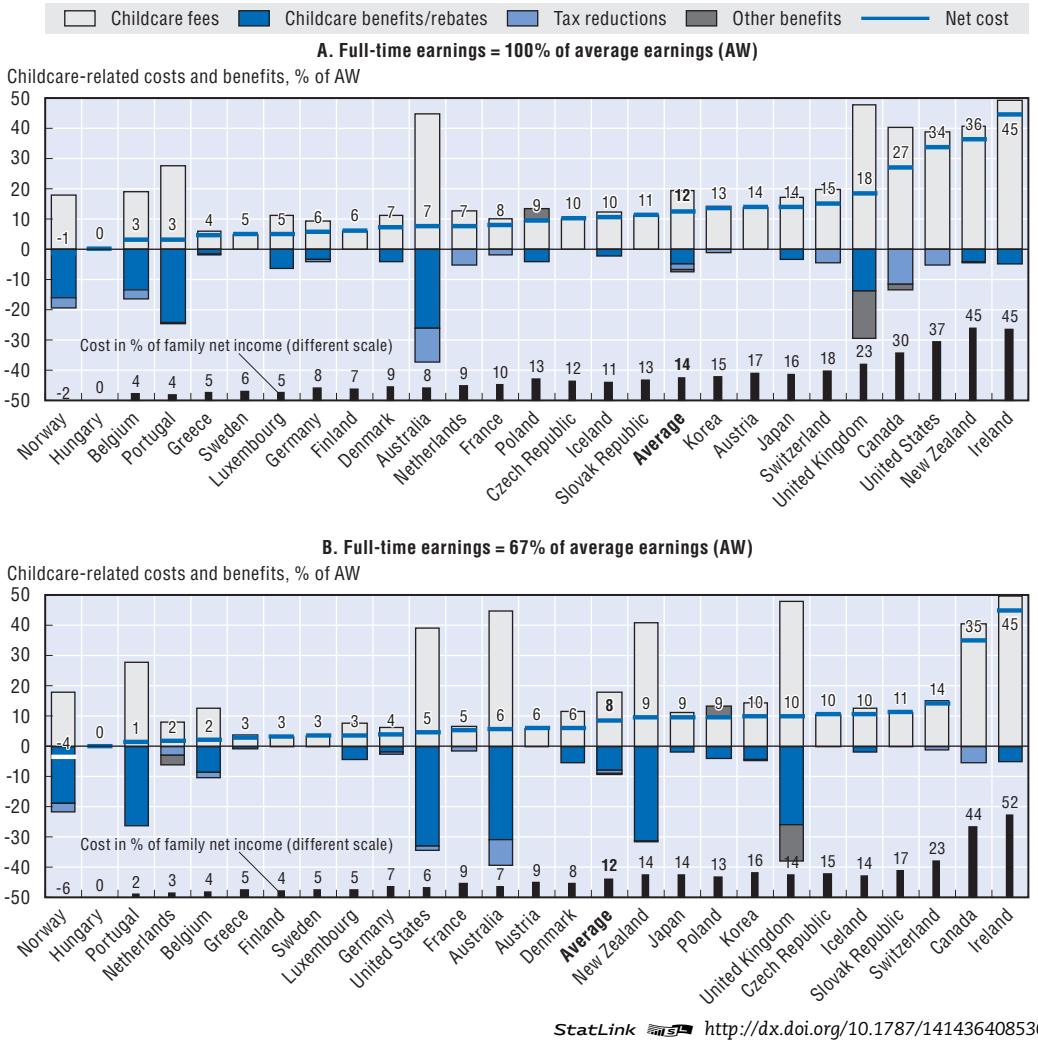
Source: OECD Tax-Benefit Models.

be *higher* for lower-earning couples. For instance, in the United States, lower-income couples with low tax burdens can claim only a part of the childcare tax credits available to higher-earning families.

Cost considerations are arguably much more important for parents who have to make do without the support of a partner and will therefore need to rely more heavily on non-parental childcare. This is shown in Figure 4.3. Childcare costs for lone parents are similar to the two-parent case in only four countries (Canada, the Czech Republic, Ireland and the Slovak Republic) while, on average, they are around 40% lower for lone parents, with net costs at 8 and 12% of AW for lone parents earning low and average wages, respectively.

Yet, Figure 4.3 also reveals that these lower costs can nevertheless consume large parts of net income. In fact in five mostly English-speaking countries, working lone parents with

Figure 4.3. **Out-of-pocket childcare costs for a lone parent: full-time care at a typical childcare centre**[1]



StatLink http://dx.doi.org/10.1787/141436408530

1. Results are for 2004. Two children aged two and three. "Family net income" is the sum of gross earnings plus cash benefits minus taxes and social contributions. All fee reductions, including free pre-school or childcare for certain age groups, are shown as rebates where possible. See Figure 4.1 and Annex Tables 4.A1.1 and 4.A1.2 for details.

Source: OECD Tax-Benefit Models.

two children and earning an average wage would typically have to spend between a quarter and one half their available budget on childcare – an amount many of them will be unable to afford. The poverty status of lone parents is important in this context. Results in Chapter 2 have indicated that working lone parents may frequently have net incomes only slightly above (and sometimes clearly below) commonly-used poverty thresholds (Figure 2.4). Even small childcare-related expenses will then leave the family at a very high risk of poverty. In a large group of about 15 countries, this constrained ability to pay for childcare is addressed through generous childcare support policies, which succeed at keeping costs for lone parents at or below one tenth of net income.

For some countries, the ranking in terms of net childcare cost differs considerably from the two-parent case. For instance, Australian, Dutch and Icelandic lone parents face below-average costs. As in the two-parent case, fees charged by Swiss and UK childcare centres are among the highest for lone parents as well, although rebates and childcare-related transfers result in much lower net costs for those earning below-average wages. Two other English-speaking countries operate similar support payments (New Zealand and the United States, Michigan) which are, however, almost entirely targeted towards low-income lone parents so that those earning even an average wage face very high childcare costs. In fact, average-earning lone parents in the United States face higher net costs than two-parent families. This is, again, a result of the childcare tax credit which is more beneficial to higher income families.

The appropriate degree of targeting of childcare support depends on the relative priorities between a number of policy objectives. Given constraints on government budgets, there may be tensions between the different objectives and the extent to which they can be achieved at the same time. For instance, if the primary aim is to help parents into work in order to lower poverty risks, childcare support should be directed mainly towards those with low wage-earning potential and, especially, lone parents whose participation in the labour market has been shown to be particularly responsive to financial incentives. Another important objective is to provide education and enhance children's development at an early stage. The structure and targeting of relevant policy measures may, in this case, be less driven by labour supply considerations and more by the desire to provide good-quality childcare for as many children as possible. In practice, different childcare support measures in any given country can often be seen as serving different purposes. As a tool for identifying policy reform options, an evaluation of the combined effect of these different measures can then be especially valuable.

A closer look at the structure of childcare support revealed in Figures 4.2 and 4.3 suggests that many "low-fee" countries tend to provide inexpensive childcare for everybody. For instance, childcare costs in Nordic countries are below-average in all five scenarios. In part, this is a result of the difficulty of targeting supply-side subsidies which are generally used to lower childcare prices. Targeting of family situations and income groups is more prevalent in countries where demand-side subsidies such as rebates and cash transfers are important. In the United Kingdom, childcare costs are almost cut in half for lower-income lone parents[17] while they are reduced from high levels to less than 7% of AW in Australia, the Netherlands and the United States, especially for low-income lone parents.

Owing to the limited tax liabilities of low-income parents, tax deductions do not perform well at targeting childcare support to those who need it most. As discussed above, making childcare expenses tax-exempt is desirable for efficiency and horizontal equity

reasons. However, if these tax concessions are the main or only support available, low-income parents may not be helped much. This can, for instance, be seen in the case of low-earning Canadian (Ontario) lone parents in Panel B of Figure 4.3. They do not see the full benefit of the tax reduction and therefore face higher childcare costs than the average earner in Panel A.

3. Care to work? What is left after paying for childcare?

The results presented in the previous section show the additional costs incurred by parents who are already in work and consider purchasing centre-based childcare. Yet, this is not sufficient for evaluating how different employment patterns impact on family resources. Parents' decisions about childcare use and employment will often be interconnected. In particular, many parents will consider the costs of childcare relative to the *net gain* from employment. In order to evaluate the financial work incentives facing parents, it is therefore desirable to integrate the analysis of childcare cost into a more comprehensive assessment of family resources in and out of work.

The availability and cost of childcare is a particularly important factor for parents with young children. It is, however, not the only relevant factor, particularly when thinking about the attractiveness of employment *versus* leisure and household work. For instance, even in countries investing heavily in childcare support, the financial payoff from employment may still be limited or non-existent if other policies fail to provide suitable work incentives. Apart from childcare costs, the financial gains from work are determined by benefit entitlements, the tax treatment of employment incomes and, most obviously, the level of in-work earnings (see Chapter 3).

Unless parents are able and willing to share all childcare responsibilities between themselves, they need to find alternative care arrangements. Given existing patterns of market and domestic work, the availability and cost of non-parental care is a crucial determinant of the feasibility of female employment in particular.[18] Since childcare can be a major expenditure item for families, these costs should be accounted for when assessing work incentives. Box 4.1 summarises and discusses available evidence on the relationship between childcare costs and employment behaviour.

a) Childcare costs and work incentives

To compare the effects of childcare costs on family resources across countries, we build on the approach used in Chapter 3 and compare incomes before and after a transition into employment for different "model families" and a range of different earnings levels. Importantly, and contrary to Chapter 3, family incomes are now measured *after childcare cost* assuming that households where all adults are employed purchase childcare services on a full-time basis, whereas families with at least one labour market inactive adult do not require any non-parental childcare. As before, children are aged two and three and childcare is assumed to be provided on a full-time basis for both children. The resulting cost estimates might therefore be considered as upper bounds of the costs actually faced by most parents (although the fees used as a basis for the calculations are often country averages so that fees charged can be even higher in some areas or for some types of care).

Figure 4.4 plots income gains at different earnings levels relative to a "no work" scenario. It shows that, averaged across countries, net childcare costs are indeed a critical factor for parents' employment decisions. Compared to a "no childcare" scenario (dashed lines), the

Box 4.1. **Labour supply effects of the cost of purchasing childcare: empirical evidence**

Parents' expenditures for non-parental childcare reduce family disposable income. One useful starting point is therefore to consider how responsive labour supply is to the income gain from employment in general, *i.e.* without distinguishing whether observed changes in disposable income are driven by differential childcare costs or, for instance, by changes in tax rates. Although results are not available for all countries, there is a vast empirical literature on the income elasticities of labour supply. The broad consensus among labour economists is that changes in participation are a more significant influence on overall labour supply than changes in the number of working hours, that labour supply is more elastic for women than for men, and that low-income groups and lone parents react more strongly to financial incentives than other groups. Looking across studies, 0.2 to 0.5 is perhaps a reasonable conservative range for the participation elasticity of women with low potential earnings (*i.e.* a 1% reduction of the income gap between working and not working is associated with a 0.2-0.5% decline in participation). If one would translate the percentage changes of childcare costs into a percentage change of disposable incomes, these elasticities could provide clues about the potential effects of these costs on employment.[a]

Yet, such estimates are in fact of limited value when considering the labour supply implications of childcare costs. The reason is that changes in these costs do not simply lead to a proportional increase in childcare expenditure (and thus an income reduction of the same absolute magnitude). Instead, there is an intervening process, whereby parents choose the quantity of childcare. With unchanged childcare quality, higher costs can be expected to lead to lower use. In addition, supply constraints (limited availability of childcare places or limited opening hours) may prevent parents from increasing the use of purchased care when prices drop. For a number of reasons, expenditure changes can thus be expected to be smaller than the variation in childcare prices. Investigating the employment effects of childcare costs therefore involves estimating parents' behaviour in terms of both childcare demand and labour supply.

Studies following such an approach consistently find a negative impact of childcare costs on maternal employment (the impact on fathers' employment patterns has been studied less frequently).[b] Research has mostly focussed on North America (Anderson and Levine, 2000; Michalopoulos and Robins, 2002; Powell, 2002), the United Kingdom (Blundell *et al.*, 2000) and, more recently, continental Europe (Choné *et al.*, 2003; Del Boca and Vuri, 2004; Kornstad and Thoresen, 2005; Wrohlich, 2004) and Australia (Doiron and Kalb, 2004). From these studies, one can conclude that changes in childcare costs do not seem to produce large movements of overall employment rates but that they are important for individual sub-groups. In most cases, labour supply responses are found to be substantial for low-skilled women or low-income families, for mothers of younger children and for lone parents. Full-time employment rates react significantly more strongly to changes in childcare costs than part-time employment rates.

Yet, the precise estimates vary substantially. Depending on the study and the group of women analysed, participation elasticities range anywhere from 0 to -1. To a large extent, this variation is due to methodological and data-related differences (for instance, so-called "structural" econometric models, which are based on an explicit utility specification, generally give smaller elasticities). Beyond technical differences, however, results are driven by the characteristics of existing childcare policies. These should be considered

Box 4.1. **Labour supply effects of the cost of purchasing childcare: empirical evidence** *(cont.)*

carefully to avoid misinterpreting the available evidence, especially when employment effects are compared across countries. Some of the relevant factors are listed below.

- Childcare costs faced by parents differ enormously both within and between countries. Where cost differences are large, a comparison of elasticities provides only a partial picture of the influence of childcare costs on employment. While knowing the labour supply consequences of a given percentage change of childcare costs is of interest when considering alternative childcare policies in a given country, elasticities are not sufficient for assessing whether childcare costs are "more important" for employment in one country than in another. Since the percentage change of employment rates or working hours will tend to be small in countries where childcare costs are low, detailed information on these costs – as derived in this chapter – is a prerequisite for making such comparisons (the same applies to cost differences within a country). In particular, elasticities are not very useful where existing costs are very low (as shown above, net costs can be close to zero in some cases).
- Labour supply studies differ with respect to the particular childcare cost variable they investigate. As shown in Section 2 above, changes in childcare *fees* (the prices charged by providers) are often partially compensated by tax concessions or childcare-related cash transfers to parents. Changes in these fees will then result in smaller expenditure changes than changes in the *net cost* to parents. As a result, studies analysing the effect of altering the net costs to parents, tend to find larger labour supply effects than those investigating the impact of higher or lower fees.
- There are barriers to the use of childcare that are not primarily cost-related. Supply is severely constrained in some countries or regions. Where demand exceeds supply, costs have a limited impact on childcare use and, thus, labour supply (see Del Boca and Vuri, 2004). For similar reasons, employment effects of childcare costs will tend to be small if parents do not use available childcare services for reasons of insufficient care quality.
- Other social and fiscal policies can also present employment barriers. Results in Chapter 3 of this publication show that adverse work incentives are frequently caused by high tax burdens or the withdrawal of benefits once individuals start to work. Small labour supply effects of childcare costs then do not necessarily suggest that high childcare expenses do not present an obstacle to employment. Rather, costs may need to be brought down while at the same time re-balancing tax and benefit provisions to address existing work incentive issues.

a) Doiron and Kalb (2002) use an approach along these lines to illustrate the potential labour supply effects of childcare costs in Australia.

b) Other types of evidence also suggest a negative association between childcare costs and female employment. This includes cross-country studies using aggregate data (see Jaumotte, 2003, who uses data on public childcare spending per child rather than the actual cost faced by families), as well as evidence from surveys asking parents about the reasons for not working outside the home (Woodland *et al.*, 2004).

financial reward of employment is reduced considerably once childcare costs are accounted for (solid lines). At low earnings levels, the net gain from employment is only slightly above zero on average suggesting that parents in a number of countries face a net loss when taking up employment. A striking finding is that, on average, relative income gains for lone parents and second earners are not too different when childcare costs are taken into account while they are much lower for lone parents in a "no childcare" setting. This suggests that most countries target childcare support towards (low-wage) lone parents.

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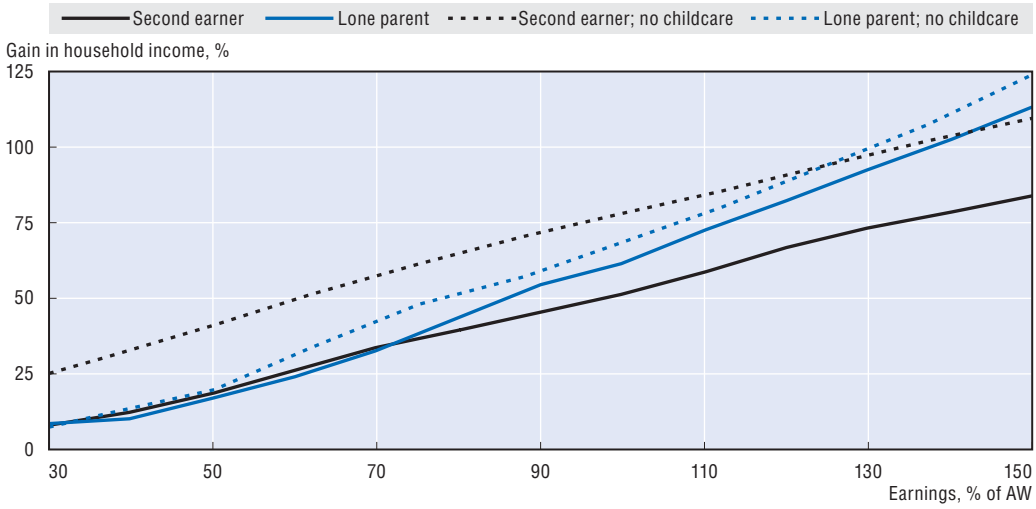
Figure 4.4. **Starting employment: income gain net of childcare cost**

Country average[1]



StatLink http://dx.doi.org/10.1787/141506556368

1. Median values over 26 countries, see Annex Figures 4.A1.1 and 4.A1.2 for country details.

Source: OECD Tax-Benefit Models.

Detailed results for each country are reproduced in Annex Figures 4.A1.1 (for two-parent families) and 4.A1.2 (for lone parents). For each country and family type, and similar to Figure 4.4, the graphs display the net income gain of taking up employment at different earnings levels with and without childcare. The distance between the "with" and "without" childcare numbers represents the influence of childcare costs on work incentives. Since childcare fees can vary substantially within countries, alternative calculations for "low" and "high" fees are shown as a corridor around the central estimate (the central estimate corresponds to the fee information summarised in Annex Table 4.A1.2).

Exploring the effects of alternative fee levels in this way aids in the interpretation of results for individual countries, especially where fees are known to vary considerably, depending on childcare institution, region, etc. Another reason why it is interesting to assess work incentives for a range of different situations is that such computations can be used to examine a broader range of "what-if" questions that help shed light on the mechanics of existing policies and on the potential effectiveness of measures aimed at improving work incentives. More specifically, the results in Figures 4.A1.1 and 4.A1.2 provide an indication of the effectiveness of policies aiming to influence childcare fees or wage levels. The calculations show to what extent lower childcare fees (or higher wages) would translate into improved work incentives while accounting for the fact that the intended effects of policy action can be mitigated or reinforced by tax and benefit policies.

Existing policy regimes cause hugely different outcomes for parents across countries. For instance, for lone parents moving into low-wage employment, income gains range from plus 50% and more (Australia, Hungary, Sweden and the United States) to minus 30% (Korea, Ontario, the Slovak Republic and Switzerland), reflecting the heterogeneity of policy configurations across countries. It is also evident, however, that very different institutional setups can lead to remarkably similar outcomes.

Table 4.2. **Work incentives and childcare costs**

A. Second earner

		Financial incentives to take up employment (net income gain)		
		low	*moderate*	*high*
Impact of childcare cost on income gain	*low*	France (+) Hungary (+) Slovak Republic	Australia (-) Belgium (+) Czech Republic (-) Denmark Finland (-) France (-) Germany Hungary (-)	Belgium (-) Czech Republic (+) Greece Luxembourg (-) Poland Sweden
	moderate	Australia (+) Austria (+) Finland (+) Iceland	Austria (-) Japan (-) Luxembourg (+) Netherlands (-) United States (+)	Japan (+) Korea Netherlands (+) Norway Portugal
	high	Canada Ireland New Zealand (-) Switzerland United Kingdom United States (-)	New Zealand (+)	

B. Lone parent

		Financial incentives to take up employment (net income gain)		
		low	*moderate*	*high*
Impact of childcare cost on income gain	*low*	Denmark France (-) Poland (+)	France (+) Germany (-) Luxembourg (-) Netherlands (-) Poland (-)	Belgium Finland (-) Greece Hungary Norway Sweden (-)
	moderate	Czech Republic (-) Finland (+) Germany (+) Iceland New Zealand (-) Portugal (-)	Australia (+) Czech Republic (+) Japan (-) Netherlands (+)	Australia (-) Austria (-) Sweden (+) United States (-) Luxembourg (+)
	high	Austria (+) Canada (-) Ireland Korea (-) New Zealand (+) Slovak Republic (-) Switzerland United Kingdom (+)	Canada (+) Japan (+) United Kingdom (-)	Korea (+) Portugal (+) Slovak Republic (+) United States (+)

Note: A country is classified in more than one cell if its position differs significantly between low-wage (-) and higher-wage (+) jobs.
Source: Figures 4.A1.1 and 4.A1.2.

To facilitate the presentation of these results, it is useful to group countries according to net income gains from employment and the extent to which childcare costs drive the results. A resulting set of clusters is shown in Table 4.2. Countries towards the bottom left corner are those where childcare support policies would be most crucial in order the address existing incentive issues.

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Two observations stand out. First, it is striking that the groupings do not mirror commonly-used categorisations in terms of welfare state regimes. Second, adverse work incentives can occur as a result of high childcare costs or because of other factors. Both these observations suggest that no simple set of policy prescriptions is appropriate for addressing the observed work incentive issues but that policy responses need to be multi-faceted and carefully tailored to the situation in each country.

Weak or non-existent financial work incentives are found in a large number of countries. In fact, in more than a third of them, lone parents with low prospective wages are better off (sometimes substantially so) staying at home collecting welfare benefits than seeking employment (negative income gains in Figure 4.A1.2). The cost of childcare acts as a major barrier to work in many of these cases (Canada, Ireland, Korea, New Zealand, Switzerland, the Slovak Republic and the United Kingdom) but inactivity traps are also a problem where childcare is much more affordable for low-wage lone parents, such as in Denmark, France or Iceland. For instance, in Denmark and France where childcare support is well developed, even small childcare expenses leave working lone parents with less money to spend compared to the "no work" situation. Yet, the payoff from employment is shown to be very low even *without* childcare (dashed line in Figure 4.A1.2). Clearly, childcare-related policies alone are not sufficient to make work more financially attractive in these cases. Instead, and as discussed in Chapter 3, addressing weak work incentives will involve rebalancing of tax and benefit policies more generally. The same is true for Switzerland although very high childcare costs there further exacerbate already weak work incentives for lone parents.

Conversely, an inspection of the graphs in Figure 4.A1.2 for Canada (Ontario), Ireland, Korea and the United Kingdom very clearly identifies childcare costs as the main culprit of inactivity traps. Reducing the very high childcare fees would move income gains towards the dashed line, which would go a long way towards making employment more attractive. For instance, the graphs show that reducing fees by one-third would result in above-average work incentives for low-paid lone parents in Ireland and the United Kingdom. Achieving price reductions of this magnitude, however, requires a strong and sustained policy commitment and most likely involves a combination of suitable supply-side measures. This could include subsidies to reduce the cost of childcare provision but also direct investment in childcare facilities as high start-up costs can hold back investment, especially in disadvantaged areas that may be less attractive to privately-owned childcare operators (but where facilitating employment for mothers can be vital to contain poverty risks).

Fees are also high in Canada (Ontario) but the results suggest that a broader range of make-work-pay initiatives are required to address the disincentives for low-wage lone parents in this case. Interestingly, Figure 4.A1.2 shows that, in contrast to all other countries, the gap in Ontario between the "no childcare" and "childcare" scenarios *narrows* at higher earnings levels. This implies that childcare support is targeted towards *higher*-income families, who benefit disproportionately from the tax-deductibility of childcare expenses as discussed earlier. In addition to treating childcare costs as work-related expenses and, as such, making them tax-deductible, further support measures would be needed if lone parents with low prospective wages are to benefit from employment. One way to achieve this would be to combine tax-deductibility with a refundable tax credit or targeted fee reductions (as in Belgium, New Zealand or the Netherlands: see Table 4.A1.3).

There are a number of countries where, even after accounting for childcare costs, low-wage employment brings significant income gains for lone parents. In some of these cases, carefully balanced policy packages combine relatively generous benefits for those without a job while still maintaining incentives to take up employment – even for those having to purchase childcare services in order to find the time for paid work.[19] In Finland, Norway and Sweden, this is, in part, achieved by keeping fees very low, particularly for low-income parents. Fees are higher in Australia but financial incentives for low-wage work are nevertheless more favourable than in most other countries.[20]

For lone parents in Denmark, France and Germany, formal childcare is also relatively inexpensive. But steep benefit withdrawals, high tax burdens for employees, or both, prevent larger gains from employment in these cases. The same is also true for higher-earning lone parents in Poland. Note that, in a few cases, benefits *fully* absorb variations in childcare fees charged to low-income families (for instance, the graphs for "typical", "low" and "high" fees collapse into one single line for lone parents in Belgium, Denmark and Hungary, among others). In these cases, measures aiming to lower fees will reduce government expenditure on these benefits but will have no direct influence on work incentives for the groups concerned.

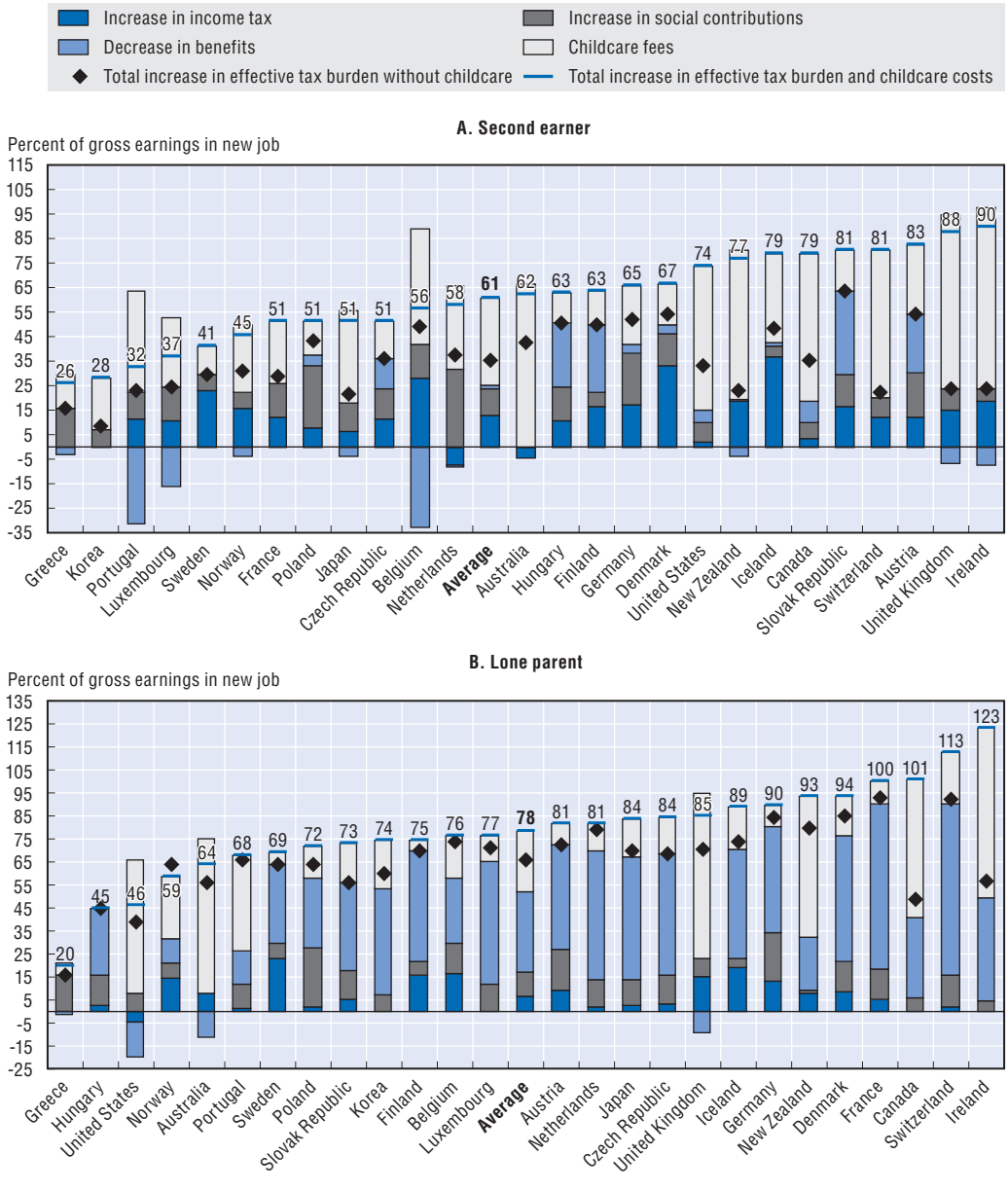
While the payoffs from employment can be very unfavourable for lone parents, one general pattern that emerges from the clusters in Table 4.2 is that childcare costs can be a particularly powerful determinant of the net income gains in the case of second earners, especially at lower wage levels. Indeed, the influence of childcare costs, indicated by the vertical distance between the "with" and "without" childcare lines in Figures 4.A1.1 and 4.A1.2, is frequently larger for second earners than for lone parents. One reason is that childcare benefits are frequently targeted to the poorest families so that two-earner couples may only be entitled to reduced support payments or may be ineligible altogether. As a result, childcare costs can, compared to lone-parent families, be substantially *higher* in absolute terms. In addition, inactivity traps for lone parents can arise from a range of different policy features (notably benefit withdrawals), whereas for second earners, childcare costs tend to be the main driver of reduced income gains.

The mechanics behind incentive problems can be seen more clearly in Figure 4.5. Similar to the average effective tax rates (AETR) shown in Chapter 3, these graphs examine how individual policy instruments contribute to the overall erosion of the financial gains from work. Relative to the earlier charts in Chapter 3, the main difference is that they now include the influence of childcare fees alongside tax burdens and benefit withdrawals.[21] The results confirm the dominating role of childcare costs in the two-parent case. Averaged across the 26 countries where sufficient data are available, fees use up 35% of the gross earnings of a low-wage second earner – more than taxes, social contributions and benefit losses combined. This can be seen in Panel A. Only just over one-third of gross earnings are effectively left to the family for consumption.

In more than half of the countries, AETRs are even higher. In some cases, tax burdens[22] or the withdrawal of home-care allowances[23] are the main factors causing high AETRs. But in most countries where AETRs are particularly high, adverse work incentives are a result of very high childcare fees. A few countries employ childcare-related tax concessions and benefits in order to neutralise most of the adverse impact of childcare fees (Australia and the United Kingdom; to a lesser extent Belgium, the Netherlands and New Zealand). In the graphs, this can be seen by inspecting the gap between the "with

Figure 4.5. **Moving into low-wage jobs: what is left after childcare**

Childcare fees and change of taxes and benefits relative to earnings[1]



StatLink http://dx.doi.org/10.1787/141558047744

1. Transitions from labour-market inactivity (*i.e.*, without unemployment benefits) to a full-time low-wage job (67% of AW). Same family situations as in Chapter 3 (Table 3.5), except that children are aged two and three. Assumes full-time centre based care while in work and no childcare costs while out of work. Benefits available only on a temporary basis immediately following the transition into work are not taken into account.

Source: OECD Tax-Benefit Models.

childcare" and "without childcare" markers. Whenever the size of this gap is smaller than the fees, parts of these fees are compensated so that working parents do not bear the full burden. For second earners, these concessions turn out to be relatively insignificant, however. They are much more important for lone parents. In spite of the larger childcare-

support payments, AETRs for lone parents exceed those of second earners in all countries except in Austria, Greece, Hungary, the Slovak Republic, the United Kingdom and the United States.

b) Earnings potential after child-related career breaks

The discussion so far has focussed on the role of childcare costs and the structure of tax-benefit systems. Yet, for women balancing work and family life, the most visible influence on the economic attractiveness of paid work is the potential wage they can earn in the labour market.

It is interesting in this context to compare the amounts parents need to earn in order to be able to achieve income gains when taking up a job. The results indicate that, relative to average earnings, lone parents in Switzerland (80%), Canada and France (around 70%) as well as Denmark and New Zealand (60%), require the highest earnings to be able to cover work-related taxes, benefit reductions and "typical" childcare fees (note that this does not account for other work-related costs or any disutility of work). In other countries, employment already starts generating net income gains at much lower earnings levels. While inactivity traps are generally less dramatic for second earners, especially at higher earnings levels, income gains for low-wage jobs (< 70% of AW) are nonetheless below 15% in six countries (Austria, Hungary, Iceland, Ireland, the Slovak Republic and the United Kingdom). In each case, higher earnings can make employment considerably more attractive (in a few countries, such as Korea, steep graphs indicate that even small earnings increases can make a significant difference to family budgets).

Policies that enable returning parents, mainly mothers, to earn higher wages, can thus help avoid inactivity traps and provide them with both the incentives and the means to combine careers with having children. Given the more elastic labour supply of women, boosting their earnings potential is likely to result in particularly favourable returns in terms of employment levels, poverty reduction and economic growth. Relevant measures include policies that 1) help to eliminate any discriminatory components of existing gender wage-gaps; 2) promote investment in human capital; and 3) maintain earnings potential during child-related employment breaks.

Helping parents to reconcile child-rearing with employment therefore requires a dedicated, long-term and multi-faceted policy approach that ensures coordination and consistency of measures in a number of areas. In particular, policies in this area need to remove barriers to part-time work, provide flexible parental-leave arrangements to strengthen work attachment, and renew or build up human capital after periods of parental leave. Another essential aspect is the active encouragement of a more balanced sharing of domestic responsibilities between men and women. Yet any strategy that does not succeed at providing children with high-quality care on a regular and continuing basis runs the risk of either discouraging maternal employment, inhibiting child development or preventing parenthood altogether. Given the very large cost of childcare provision, especially for infants, childcare support policies are therefore a crucial element of a successful policy mix. To be effective, such support necessarily involves a considerable commitment of resources. Well-structured childcare support policies can pay for themselves, however. As shown in this chapter, a lack of support can create substantial barriers to work which, in turn, lead to higher welfare expenditure, lost tax revenues, inhibited growth and wasted human capital.

Notes

1. The OECD series *Babies and Bosses* provides an in-depth assessment of the policy issues and a contribution to the debate for a number of OECD countries (OECD, 2002, 2003, 2004a, 2005, 2007).
2. For the age group this chapter focuses on (pre-school children aged two years and older), available evidence indicates that, when combined with good-quality childcare, mother's employment away from home is not detrimental to their development but can, on the contrary, contribute to it (James-Burdumy, 2005; Kamerman *et al*., 2003). There is convincing evidence that maternal *full-time* employment during the *first* year after birth is harmful to children's health (Berger *et al*., 2005; Gregg *et al*., 2005; Tanaka, 2005). Recent evidence for the United States, where maternity leave periods are extremely short, also suggest that measures that enable women to extend their leave, as recently implemented or currently considered in the majority of states, have beneficial effects for the health of mothers (Chatterji and Markowitz, 2005).
3. D'Addio and Mira D'Ercole (2005) analyse trends in, and influences on, fertility rates. Projections of age-related spending are provided by Dang *et al.* (2001).
4. Informal care can serve a valuable buffer function in a situation where the supply of formal childcare is lagging behind increasing female employment rates. An example is Ireland where, amid low formal childcare coverage, employment has soared from 37% of working-age women in 1990 to 55% in 2002 (OECD database on Labour Force Statistics). To the extent that women substitute employment for unpaid childcare work, rising female employment diminishes the capacity for informal care and this eventually implies a more urgent need for other forms of childcare.
5. While frequently unpaid, informal care carries an economic cost (mainly in terms of forgone earnings and leisure of the care-giver). As a result, potential informal carers who would be available in principle (*e.g.* non-working relatives living close-by) may not be prepared to offer their help at all or only for a fraction of the time required.
6. Fees can be substantially higher for infants and lower for older children.
7. Other relevant factors include differences in childcare quality as well as the price of relevant input factors (notably staff and childcare premises).
8. In addition, commercial providers may employ price discrimination to increase profits.
9. Minimising these distortions would involve taxing home production *and* making childcare expenses tax deductible.
10. In terms of tax progressivity, there is also an effect working in the opposite direction as deductions keep some lower-income taxpayers out of tax liability altogether. See Keen *et al.* (2000).
11. Evidence consistently points to a marked decline of (re-) entry wages after prolonged career breaks. Kunze and Ejrnaes (2004) provide a summary of alternative explanations as well as German evidence for the existence of wage penalties associated with career interruptions after childbirth. A number of studies also show that those going back to work after extended leaves are, on average, unable to rebound to the same earnings levels and participation rates as those taking shorter breaks. One recent analysis using high-quality data for Austria in a "natural experiment" setting is by Lalive and Zweimüller (2005) who study the employment and fertility effects of doubling parental leave entitlements from 12 months to 24 months in the early 1990s. Regarding work patterns, findings point towards markedly lower employment rates after the leave for those taking the new, longer leave. Importantly, lower employment is found to persist even ten years after childbirth (the authors also evaluate a subsequent reduction of maximum leave durations to 18 months and find increases in employment rates of a consistent magnitude).
12. In addition to compensation for parental childcare, the means-tested Parenting Payment in Australia also serves purposes that are outside the scope of childcare-related benefits in other countries (support for children and general income maintenance, notably for lone parents).
13. Typologies of childcare support payments are not free from ambiguities. For instance, should a lower fee payable for the second child be shown as a separate refund/rebate or should fees be shown net of the rebate? As a rule, we have attempted to break down individual components as far as possible in order to aid transparency. Hence, where it was possible to show refunds separately from fees, we have done so. For readers familiar with the childcare cost situation in a particular country, the fee components may thus appear higher than expected if they are used to seeing them net of refunds. The important point is that all relevant components are counted one way or another and that net costs therefore accurately reflect the situation in each country.
14. The calculations are therefore relevant for the period after maternity leave but before children enter (pre-) school. The choice of ages also reflects the scope of childcare support policies, which

frequently employ age cut-offs that differentiate between very young children up to two years of age and older children aged three and above. Clearly, even within this narrow range of family circumstances, actual patterns of childcare use will differ between households. An ideal way to account for the heterogeneity of childcare use would be to assess the costs faced by a representative set of households that captures the diversity of family situations. Yet, empirically-grounded approaches are hampered by a lack of internationally comparable and representative data. More specifically, there are no internationally comparable micro-data that contain all the information (notably income and employment status for each family member as well as childcare use and childcare costs) necessary to analyse how different employment and care patterns may affect family budgets.

15. Note that all cost components are shown as percentages of average (AW) earnings so their sizes are comparable between the different panels in absolute terms.

16. Availability and use of childcare facilities vary enormously among these "low-cost" countries (Table 2.1 shows enrolment rates for under-three year-olds ranging from a very low 7% in Greece and Hungary to above 62% in Denmark).

17. Several policy measures combine to reduce out-of-pocket childcare expenses in the United Kingdom. In addition to income- and employment-tested refunds of actual childcare expenses, free part-time care is provided for pre-school children from age three ("childcare benefits/rebates" in Figures 4.2 and 4.3). Finally, housing benefits can go up for low-income lone parents using childcare as the remaining net childcare costs can be subtracted from the income base used for calculating benefit entitlements ("other benefits").

18. Whether voluntary or not, women still spend significantly more time on childcare and other domestic activities than men. For evidence, see Smith (2004), Stancanelli (2003) and OECD (2001), Chapter 4.

19. Greek, Hungarian and US lone parents also gain substantially; as discussed earlier, this is mainly due to their very low incomes when out of work.

20. As in the United Kingdom, a sizable portion of the fees paid by Australian low-income users of approved childcare is also refunded as a rebate. In addition, other Australian family-related benefits employ an income disregard so that benefit withdrawals are less severe for those with very low earnings (however, the means-tests start to "bite" at higher earnings levels, as illustrated by the flattening of the graph around 50% of AW).

21. Differences also arise for the other income components as the use of childcare affects income taxes and, especially, benefits for those taking up a job.

22. Belgium (*Wallonie*), Denmark, Iceland (Reykjavík).

23. Finland (Helsinki), France, Hungary and the Slovak Republic.

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ANNEX 4.A1

Table 4.A1.1. **An overview of childcare typology**

	Centre-based care		Family daycare		Pre-school		Compulsory school	
Public*								
Private**								
Age	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Australia	Accredited centres and family daycare available part-time (20 hrs) or full-time (up to 50 hrs)				Reception/pre-school classes, with primary school (full-time, out-of-school-hours care also provided).		Compulsory schooling	
Austria	*Tagesmutter* (FDC) and Krippen (centre-based). Part-time (25 hrs)			*Kindergarten* (part-time, 25 hrs). Out of school care provision under development.			Compulsory schooling	
Belgium	*Kinderdagverbliif (*centre-based crèches) and FDC; *Crèche* (centre-based) *and gardiennes encadrées (*FDC)			*Kleuterschool,* part-time or full-time, with out-of-school-hours care; *École maternelle,* part-time or full-time, with out-of-school-hours care			Compulsory schooling	
Canada	Centre-based and family daycare				Junior Kindergarten Ontario	Kindergarten/ Maternelles in Québec	Compulsory schooling	
Czech Republic	*Crèche* (centre-based care), FT			*Materska skola* (state kindergarten)			Compulsory schooling	
Denmark	*Dagpleje* (FDC) and *Vuggestuer* (creche) full-time (> 32 hrs)			*Bornehaver (*kindergarten) full-time (> 32 hrs)				Compulsory schooling
	Adlersintegrer (age-integrated facility) full-time (> 32 hrs)						*Bornehaver* (> 32 hrs)	
Finland	*Perhepaivahoito* (FDC) and *Paivakoti* (municipal early development centres), full-time (< 50 hrs)						*Esiopetus* pre-school	Compulsory schooling
France	*Crèche* (centre-based care) and A*ssistant maternelles* (FDC), FT			*Ecole maternelle* (pre-school)			Compulsory schooling	
Germany	*Krippen* (centre-based creche)			Kindergarten (pre-school)			Compulsory schooling	
Greece	*Vrefonipiaki stahmi* (crèche for children < 2.5 and nursery school for > 2.5)						Compulsory schooling	
				Nipiagogeia (kindergarten)				
Hungary	*Bolcsode* (creches), full-time (40hrs)			*Ovoda* (kindergarten)		Compulsory schooling		
Iceland	Daycare centres and "day mothers"(FDC)			Pre-school			Compulsory schooling	
Ireland	Regulated FDC and nurseries (centre-based)				Early Start and Infant school (pre-school), with primary school		Compulsory schooling	
				Pre-school playgroups				
Italy	*Asili nidi* (creches) part-time (20 hrs) and full-time (< 50 hrs)			*Scuola dell'infanzia* (pre-school)			Compulsory schooling	
Japan	Centre-based care						Compulsory schooling	
	Family daycare			Kindergartens				
Korea	Childcare centres							
				Kindergartens			Compulsory schooling	
				Hakwon (pre-school)				
Luxembourg	*Créche (*centre-based care) and *Tagesmutter* (FDC)			*Enseignement pre-scolaire* (pre-school)			Compulsory schooling	
Mexico	*Educación inicial* (centre-based creche)				*Compulsory educación prescolar* (pre-school)	Compulsory schooling		
Netherlands	*Gastouderopvang* (FDC), *Kinderopvang* (childcare centres) and playgroups				Group 1, with primary school	Compulsory schooling (Group 2 onwards)		

Table 4.A1.1. **An overview of childcare typology** *(cont.)*

	Centre-based care		Family daycare		Pre-school		Compulsory school	
Public*								
Private**								
Age	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
New Zealand	Childcare centres and some home-based services (FDC)			Community-based kindergarten, Play centres		Compulsory schooling		
Norway	*Barnehage*, including rural familiebarnhager, full-time (40 hrs)						Compulsory schooling	
Poland	Nurseries			Pre-school/Nursery schools				Compulsory schooling
Portugal	*Creche familiare* (FDC) and centre-based creches			*Jardims de infancia* (pre-school)			Compulsory schooling	
Slovak Republic	Nursery schools			Kindergarten			Compulsory schooling	
Spain	Educación Pre-scolar (Centre-based)			Education infantile (pre-school), with primary school			Compulsory schooling	
Sweden	*Forskola* (pre-school) full-time, 30 hrs, some *Familiedaghem* (FDC) particularly in rural areas.						*Forskole-klass* (pre-school, PT)	Compulsory schooling
Switzerland	Créche. Krippen, varies across cantons (centre-based)			Pre-school, mandatory in some cantons.			Compulsory schooling	
Turkey	Créche			*Ana Okullari* (kindergartens)			Compulsory schooling	
United Kingdom	Nurseries, child minders and playgroups			Playgroups and nurseries, PT	Reception class, with primary school	Compulsory schooling		
United States	Childcare centres and FDC			Educational programmes, incl. pre-K, private kindergartens, Head Start (State Kindergartens)			Compulsory schooling	

* Provision is largely publicly funded and managed (more than 50% of enrolments are in publicly operated facilities).
** Provision is largely managed by private stakeholers (both for-profit and not-for-profit providers) and is publicly and privately financed.

1. FDC: Family daycare.
2. PT: Part-time.

Source: OECD Family database (*www.oecd.org/els/social/family/database*).

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Table 4.A1.2. **Fees and characteristics of centre-based childcare, 2004**[1]

	Scheme	Age group covered (years)	Full (part) time care: number of hours per week provided	Full-time fee per child		Fee varies with:				Additional information		
				National currency[2]	% of AW	Income	Family status	No. of children (in care)	Age of child	Provision of childcare	Priority access for specific groups	Other
Australia	Long Day Care	0-6	50 (< 50)	910	22	No	No	—	—	Provision mainly private but government-subsidised childcare is provided in various forms, including family day care. Few children under age one are in formal childcare, parental and informal care predominate in this case. 75% of children aged 0-12 are in parental or informal care.	Lone parents; children at risk of abuse or neglect and families with work commitments.	Fees depend on work status of parent(s). The majority of children aged five are in (free) pre-school. In Tasmania, compulsory schooling already starts at age five.
Austria (Vienna)	Crèche (*Krippe*) Kindergarten	1-3 3-5	> 25 (< 25)	262	10	Yes	No	Yes[3]	No[3]	Childcare providers are mainly private non-profit institutions. Facilities are subsidised by municipalites and the states (Länder) and are locally regulated. Sufficient number of places for ages 3-6 but not for younger children. Most children aged under two are looked after by a parent on parental leave at home.	Children previously in day-care facilities and those whose family situation makes it essential.	Facilities in Vienna are generally open long hours. Full time fees are assessed based on a threshold usage of around five hours per day. At age three (some earlier), children transfer from Crèche to Kindergarten, which has both a care and learning aspect.
Belgium	Crèche, French community* Crèche, Flemish community	0-3	> 25 (< 25)	584 494	20 17	Yes	No	Yes	No	Facilities are subsidised. Shortage of places for ages 0-3.	No	Fees are regionally regulated; they are reduced (70% each) if there are more than two children in the family or if at least two children are in care. Cost of part-time care is 60% of full-time. Majority of children aged 4+ are in free pre-school.
Canada (Ontario)	Regulated childcare facilities	0-6	—	691 (median for ages 1.5-3)	21	For some parents[4]	No	Yes[4]	Yes	Number of regulated childcare facilities can accommodate approximately 9% of children aged 0-12.	No	Fees cover approximately 50% of the costs of childcare. Individual jurisdictions legislate maximum subsidy amounts, based on age of child, type of care setting, and duration of care (full/part-time). SA recipients are compensated for childcare expenses up to a limit (rules vary across jurisdictions).

Table 4.A1.2. **Fees and characteristics of centre-based childcare, 2004**[1] *(cont.)*

	Scheme	Age group covered (years)	Full (part) time care: number of hours per week provided	Full-time fee per child		Fee varies with:				Additional information		
				National currency[2]	% of AW	Income	Family status	No. of children (in care)	Age of child	Provision of childcare	Priority access for specific groups	Other
Czech Republic	Public crèche*	0-2	—	1 500	9	No	Yes	No	—	Availability of centre-based care very restricted for under-three year-olds (number of facilities declined from >1 000 in 1990 to 60 in 2003). Children under three are now mainly cared for by family, informal caregivers or in day nurseries.	No	Fees are determined by municipal/ district authorities. State kindergarten fees are at most 30% of non-investment cost per child.
	Private crèche	0-2	—	5 413	31	No	No	No	—			
	State kindergarten*	3-5	—	300	2	Yes	No	No	—			
Denmark	Local authority child minding*	0.5-2	> 32	2 225	8	Yes	No	Yes	Yes	Childcare facilities are heavily subsidised; provision is predominantly a public service supervised by local authorities. Some municipalities offer guaranteed childcare for children aged under 12 months. After-school care at school or in special centres is available for children aged 6-13.	Assessed by municipalities on a case-by-case basis.	Maximum payment for parents is 30% of full price (33% in case of guaranteed childcare; this is the fee shown in this table). Fees are further reduced depending on income (see Table A2). For two or more children in care, full fees are payable for one child (the one subject to the highest fee), half payment for further children. Municipalities can decide to provide further rebates. Kindergarten classes for age group 6-7 are free and considered pre-school classes.
	Crèche	0.5-2		2 717	10							
	Kindergarten*	3-5		1 583	6							
Finland	Public day care	0-6	< 50	200	8	Yes	Yes	Yes	No	Every child under compulsory school age is entitled to early care and education. This is provided by local authorities once parental leave comes to an end in general, but may be outsourced to private providers.	—	For 3+ children, cost is 20% of 1st child. Fees are a percentage of family income exceeding a certain income limit. Part-time care costs around 60% of full time. Public childcare fees are nationally regulated. Children aged six are often in free pre-school classes.

Table 4.A1.2. **Fees and characteristics of centre-based childcare, 2004**[1] *(cont.)*

	Scheme	Age group covered (years)	Full (part) time care: number of hours per week provided	Full-time fee per child		Fee varies with:				Additional information		
				National currency[2]	% of AW	Income	Family status	No. of children (in care)	Age of child	Provision of childcare	Priority access for specific groups	Other
France	Crèche	0-2	< 50	618	25	Yes	No	Yes	Yes	Shortage of childcare facilities for children under three, especially in big cities. Care provision also through child minders or employment of a child minder at the parents' home (both highly subsidised).	—	For low-income families, income dependent monthly fees for full-time crèche can be as low as EUR 68 (single-child families). They are reduced by up to 50% in case of multiple children in care. The majority of children aged 3+ are in free pre-school (*maternelle*) on a full or part-time basis. The results presented here assume full-time pre-school for three-year-olds.
Germany (Nordrhein-Westfalen)	Crèche Kindergarten	< 3 3-6	> 42.5 > 42.5	313 235	9 7	Yes	No	Yes	Yes	Children aged 3-6 have a right to a place in a Kindergarten. Children of other ages are admitted if possible but supply does not cover demand. After-school care for children aged 6-14.	Socially and economically disadvantaged groups.	Fees are regionally regulated and are only paid for one child irrespective of number of children in care. Minimum payment is zero for low-income families. No price differentiation between full/part time care.
Greece	Public nurseries/day care	Eight months to six years	—	65	4	Yes	No	Yes	—	Over 50% of nurseries are public. Provision is insufficient for children aged under three. Nurseries established by the MInistry of Health and Welfare are administrated by local authorities. Private centres are subject to similar rules and regulations as public institutions.	Families in social need (*e.g.* orphans, large families, lone parents, disabled parents).	Fees are subject to national guidelines. Public nurseries are subsidised. The minimum fee can be zero for low-income families. 50% fee reduction for second child.

Table 4.A1.2. **Fees and characteristics of centre-based childcare, 2004**[1] *(cont.)*

	Scheme	Age group covered (years)	Full (part) time care: number of hours per week provided	Full-time fee per child		Fee varies with:				Additional information		
				National currency[2]	% of AW	Income	Family status	No. of children (in care)	Age of child	Provision of childcare	Priority access for specific groups	Other
Hungary	Public crèche*	0-3	40	6 000	4	Yes	No	Yes	No	Shortage of childcare facilities especially in rural areas.	—	Majority of nurseries are public and mainly cater for children aged 2+. Parents only pay for meals. Fees for these are regulated by the government and reviewed on an annual basis. Socially indigent or disabled children and children growing up in large families can be entitled to 50-100% discounts.
	Public kindergarten*	3-6	40									
	Family day care; child minders	—	—	—	—	Yes	—	—	—	—	—	Fees cannot exceed 15% of per-capita family net income (20% if fees include meals).
Iceland (Reykjavík)	Public pre-school*	2-6	40	27 900	12	No	Yes	Yes	No(3)	Majority of children aged two and older attend pre-school. Younger children may be cared for by child minders ("day mothers") whose fees are subsidised by municipalities.	None	Fees locally regulated for day care centres. Discount: 33% (75%) for 2nd (3rd) child. Fees lower for single parents or if parent is a student or disabled. Subsidies for "day mothers" and private pre-school are similar. On the whole, parents contribute about a third of the operating costs of pre-primary schools but fee structures vary between municipalities.
	Public pre-school	2-6		—	—							
	Child minders	0-1		—	—							
Ireland	Centre-based care	0-5	40	623	25	No	No	Yes[3]	Yes	Formal childcare not well developed and most facilities have waiting lists. Limited public support/subsidies. Little provision of after-school care. Frequent use of informal childcare.	—	Fees determined by providers and not regulated. Often 10% reduction for siblings. Half-time pre-school classes (infant school) for children aged 4-6. The survey underlying the fee information relates to 2002; anecdotal evidence suggest that fees can now be significantly higher, especially in the Dublin area.

Table 4.A1.2. **Fees and characteristics of centre-based childcare, 2004**[1] *(cont.)*

	Scheme	Age group covered (years)	Full (part) time care: number of hours per week provided	Full-time fee per child		Fee varies with:				Additional information		
				National currency[2]	% of AW	Income	Family status	No. of children (in care)	Age of child	Provision of childcare	Priority access for specific groups	Other
Italy[4]	Nurseries	0-2	< 50 (20)	—	—	Yes[3]	Yes[3]	Yes[3]	No	Availability and fees of public childcare for children under 3 differ significantly across municipalites; most nurseries are public and subsidised; but the majority of children are cared for by family or informal care-givers.	Access (and fees) ranked based on household income and composition	—
	State and municipal pre-school (*scuolo materna*)	3-5	—	—	—	No	No	No	No	90% of children aged 3-5 attend public pre-school, which is free of charge.	—	
Japan	Municipal daycare centres	0-2	40	80 000	19	Yes	No	Yes	Yes	Use of childcare is low for children aged 0-3.	No formal rules. In practice local authorities grant preferential access to lone parents and children requiring special assistance.	Fee depends on income tax position of parent(s). Minimum amount when family pays no local or central income tax. Fee is waived for persons receiving SA. In most municipalities, a 50% fee reduction applies for second and further children in care.
		3-5		77 000	19							
Korea	Government-supported facilities	< 2	< 60	299 000	13	No	No	No	Yes	Public sector childcare is the most important but there is also non-profit, private and employer-sponsored care.	SA recipients, lone parents and other low income families, disabled parents.	Fees in public facilities are nationally regulated and subsidised. Comparable private facilities charge about 30% more.
		2		247 000	11							
		3-5		153 000	7							
Luxembourg	Public crèche*	0-3	—	1 056	32	Yes	—	Yes	—	—	—	Fees are income dependent (only very high-income families pay the maximum price shown in this table). They are *per family* (rather than per child) and families with more children pay less in absolute terms. Fees may be waived for very low-income families. Free pre-school is compulsory from age four but available from age three. Results shown here assume that three-year olds attend both pre-school and after-school crèche.
	Private crèche		—	650-950	20-29	—	—	—	—	—	—	
	Child minders; family daycare			250-850	8-26	—	—	—	—	—	—	

Table 4.A1.2. **Fees and characteristics of centre-based childcare, 2004**[1] *(cont.)*

	Scheme	Age group covered (years)	Full (part) time care: number of hours per week provided	Full-time fee per child		Fee varies with:				Additional information		
				National currency[2]	% of AW	Income	Family status	No. of children (in care)	Age of child	Provision of childcare	Priority access for specific groups	Other
Netherlands	Daycare centre*	0-4	25-50	539	17	Yes	Yes	Yes	No	120 000 places in 2003. Average use: 2-2.5 days per week. Subsidised by both government and/or employers. Shortage of (subsidised and non-subsidised) childcare places for children aged 0-4.	—	Parents' contribution to daycare costs (*i.e.*, the "fee") are calculated as percentages of actual cost. The percentage depends on taxable income (ranging from 5% to 59.5% for the first child) and is much lower for further children. Most children are in part-time childcare (fees are then determined in proportion to the hours of care). Those aged 4+ are usually in pre-school.
	Foster parents	0-12	—	ca. EUR 5/hour		—	—	—	—	10 000 places in 2003. Group size maximum is 4-6.		
	After-school care	4-12	—	ca. EUR 5/hour		—	—	—	—	55 000 places in 2003. Average use: approx. two afternoons/week		
New Zealand	Licensed early childcare centres*	< 5	40	669	20	No	No	Yes	Yes	All licensed pre-school facilities are subsidised. Kindergartens are mostly attended by 3-4 year olds and are run by associations that are often linked together in umbrella organisations. Typical kindergarten attendance is 3-5 half days per week.	No strict rules. Government attempts to ensure provision of childcare or financial assistance for specific groups or those in need.	Often a 10% fee reduction for families with two or more children in childcare centres. Additional fees can be charged by providers for certain types of childcare services. Fees tend to be higher for very young children. Most children start school at age five.
	Kindergarten	3-4	< 20	Generally free of charge or "donations" based		No	No	No	No			
Norway	Kindergarten	< 6	> 41	2 750	9	Yes	No[3]	Yes	Yes[4]	All public and most private childcare centres are subsidised, with subsidies covering about 80% of the cost of provision on average. Children aged under one are predominantly cared for by parents at home.		Maximum fee is set at the national level. Discounts for siblings amount to a minimum of 30% for the second child and 50% for further children. State regulations also specify that all kindergartens are to offer discounts to parents with low income but the structure and level of any discounts are up to the operators (the calculations in this chapter are based on an approximate "typical" discount). Fees therefore vary between municipalites and institutions.

Table 4.A1.2. **Fees and characteristics of centre-based childcare, 2004**[1] *(cont.)*

	Scheme	Age group covered (years)	Full (part) time care: number of hours per week provided	Full-time fee per child		Fee varies with:				Additional information		
				National currency[2]	% of AW	Income	Family status	No. of children (in care)	Age of child	Provision of childcare	Priority access for specific groups	Other
Poland (Olsztyn)	Public nurseries	< 3	—	165	7	—	—	Yes	—	—	—	Local governments cover the cost of five hours per day in nursery schools, parents have to pay for longer care and board. The cost of nurseries is fully covered by parents. Fees in public institutions are set by local government, vary by municipality (*gmina*) and range between about PLN 35-250. Discounts for 2nd and further children (by 50%-75%). Fees can be a proportion of the minimum wage (20% in Olsztyn, used for the calculations here).
	Public nursery schools	3-6	—	62	3					Attendance is mandatory for six-year-olds.	—	
Portugal	Public and not-for-profit private crèches	0.5-3	40	300	28	Yes	No	Yes	Yes	Public services are fully funded. Not-for-profit service providers are also subsidised. In return, service providers must comply with fee regulations as well as certain quality standards and policies. Private institutions receive no public subsidy towards their operational outlays and do not apply an income-tested parental fee structure. About 75% of 3-6 year-olds attend (free) pre-school.	Parents whose financial or social situation is considered precarious.	Fees are legislated and generally revised annually. They are (progressively increasing) percentages of per-capita net income but cannot be higher than the average cost per user, which is the fee shown in this table. There is a 20% reduction for second and further children in the same facility. No or limited reduction for part time care. Institutions may reduce, suspend or waive the payment of the family fee in special cases. Simulation results reported here assume that three-year-olds are in pre-school, which is free of charge for all 3-6 year olds (parents only pay for meals and leisure-time activities).

Table 4.A1.2. **Fees and characteristics of centre-based childcare, 2004**[1] *(cont.)*

	Scheme	Age group covered (years)	Full (part) time care: number of hours per week provided	Full-time fee per child		Fee varies with:				Additional information		
				National currency[2]	% of AW	Income	Family status	No. of children (in care)	Age of child	Provision of childcare	Priority access for specific groups	Other
Slovak Republic	Nursery schools	<2	—	—	—	—	—	—	—	Kindergartens are administered by the ministry of education. Nursery schools, on which no further information is available, are established by municipalities.	Five-year olds; children with delayed start of compulsory schooling; and other criteria as determined by the facility.	The monthly parental contribution is regulated (excluding board) and ranges from SKK 50 to 7.5% of the subsistence minimum for an adult person. It can be reduced or waived for those earning less than a specified minimum. In additions, parents pay about SKK 600 per month for meals. The results reported here are based on the maximum amount without any reductions.
	Kindergarten	2-5	—	944	6	[3, 4]						
Spain[4]	Private	0-2	35	500	30	—	—	—	—	—	—	—
	Public	3-5	35	167 (average)	10	See endnotes 3 and 4				Public facilities are subsidised. Coverage for age group 0-2 is very low but large majority of age 3-5 are in subsidised public childcare.	Mostly for lone or working parents. Free childcare for families in serious difficulty.	Fees locally regulated. Maximum fee is approx. of total cost depending on income. Income limits vary regionally and are often specified relative to minimium wages.
Sweden	Pre-school	0-5	36 (< 36)	1 140 ("maximum charge" system. See "other information")	5	Yes[3]	Yes[3]	Yes	Yes[3]	Childcare facilities cover demand in most areas. Almost all children aged 0-1 are looked after by a parent on parental leave at home.	Working or student parents; 15 hours per week for job seekers (receipients of UB/SA) and those on maternity leave.	"Maximum charge" system: fees are income-based (1st, 2nd, 3rd child: 3%, 2%, 1% of income, subject to an upper limit). Adoption of this system is encouraged, but not required. Free pre-school for 4-6 year-olds (35 weeks/year; 15 hours/week). Fees are generally waived for SA recipients.
Switzerland (Zürich)	Nursery	0-5	40	1 991 (lower except for very high incomes)	34	Yes[3]	—	Yes[3, 4]	No	Undersupply of childcare places in many regions. Some facilities are subsidised. Terms are at the discretion of municipalities.	None at national level but preferential access possible at local level for lone parents or low-income families.	Childcare use and fees vary significantlty between *cantons* and regions.

Table 4.A1.2. **Fees and characteristics of centre-based childcare, 2004**[1] *(cont.)*

	Scheme	Age group covered (years)	Full (part) time care: number of hours per week provided	Full-time fee per child		Fee varies with:				Additional information		
				National currency[2]	% of AW	Income	Family status	No. of children (in care)	Age of child	Provision of childcare	Priority access for specific groups	Other
United Kingdom	Nursery*	< 2	50	598	26	No	No	No[3]	Yes[3, 4]	During term-time (33 out of 52 weeks), five sessions/week of 2.5 hours of free care is provided for 3-5 year-olds in nursery school education or reception class (shown as "rebate/refund" in the figures reported here). Informal care is widely used.	None.	Fees determined by private providers.
		2-5		559	25							
	Child minders	< 2		546	24							
		2-5		542	24							
United States (Michigan)	Centre-based care	0-2.5	> 30	494	20	Yes	–	Yes	Yes	Provision of childcare services is primarily market-based. The Child Care and Development Fund (CCDF), which is restricted to working low-income families, provides subsidised childcare through vouchers, certificates or purchasing childcare slots. The majority of states operate waiting lists and a system of priority access as CCDF funds are not sufficient for serving all eligible families.	Priority access is decided by each state, and include TANF recipients, very low incomes, teenage or student parents and children requiring before and after-school care.	Childcare prices and subsidies vary considerably across states, regions and type of care. States receive federal block grants but have broad flexibility in determining eligibility rules. The fees shown here represent the CCDF reimbursement ceilings in the state of Michigan (in 23 states, these ceilings are set equal to to 75th percentile of local market rates).
		2.5+		390	15							

AW: earnings of an average worker.
SA: Social assistance, or equivalent minimum income benefits
— Not available or not applicable.

1. Fees are for one month of full-time care not taking into account reductions due to periods where childcare may not be available or required, such as vacation. Where fee information is provided per hour of care, full-time care is assumed to cover 40 hours per week. The rates refer to the gross amounts charged to parents, *i.e.* after any subsidies paid to the provider but before any childcare-related cash benefits, tax advantages available to parents or childcare refunds/rebates that are akin to benefits. Fees include meals where applicable. Where prices depend on income or family characteristics, the relevant maximum fees are shown. Unless fees are rule-based or uniform across institutions, averages or "typical" fees are shown. Where more than one estimate of childcare fees is shown, the one marked with an asterisk (*) is used for the model calculations in this chapter.
2. In euros for euro-area countries.
3. In general but varies regionally or by provider.
4. Not accounted for in the calculations of net childcare costs in this chapter due to insufficient information.

Source: Information provided by delegates to the OECD Working Party on Social Policy.

Table 4.A1.3. **Childcare-related benefits, 2004**

	Cash benefits and tax reductions for users of non-parental childcare	Benefits for parental care at home ("home care" and "child-raising" allowances)	Childcare facilities subsidised	Benefits income tested
	[1]	[2]	[3]	[4]
Australia	Child Care Benefit (CCB) a fee subsidy payable to parents using up to 50 hours per week of approved (institutions) and registered (non-institutional) childcare. Maximum hourly CCB rates are independent of actual fees and are much lower for users of registered care but CCB for approved care as means-tested while CCB for registered care is not. Families with no stay-at-home parent may claim both types of CCB. The system is demand-driven, *i.e.* all those entitled can claim the benefit. Those entitled to CCB may also claim a Child Care Tax Rebate (CCTR) of up to 30% of expenses for "work-related" use of approved childcare.	Parenting Payment provides income support to low-income parents with primary care of children under 16 years of age. Families must receive no other income support payments. Recipients can work while receiving the benefit (subject to a means test). Only one parent can be eligible.	Parents can choose between receiving CCB in the form of fee reductions or as cash payments.	Both rebates for approved care and parenting payments are family income tested (no income test for registered care fees).
Austria		Monthly childcare allowance of about EUR 440 with a supplement for low-income families. The duration is 30 months (one parent on leave) or 36 months (leave shared between parents) but the benefit is paid for the youngest child only (higher rates for multiple births). Importantly, employment protection is shorter (24 months) and conditional on work experience. Previous employment is no longer an entitlement condition. 8-12 weeks after childbirth, the benefit can be combined with income from work if earnings do not exceed 60% of average earnings (but, while on employment-protected leave, this is subject to the previous employer's consent).	Yes, varies by state (*Land*).	Yes (for child allowances).
Belgium	Costs are tax deductible (up to a limit) if the care is in approved centres and only for children below the age of three (free school starts at age four). The alternative is a refundable tax credit.	—	Yes, varies by *Communauté.*	There are no cash benefits, but childcare fees are income dependent.
Canada (Ontario)	Federal tax allowance for expenses up to limit. The Canada Child Tax Benefit includes a supplement for families with children aged under seven: full amount for those not claiming the childcare expenses as a tax allowance, reduction of 25% of childcare costs for those claiming it. Provincial governments may cover all or part of the cost if SA beneficiaries are involved in training or similar programmes. Some benefits available at provincial level, *e.g.* Ontario Child Care Supplement for Working Families (OCCS).	—	Varies by province. Individual jurisdictions legislate maximum subsidy amounts, based on age of child, type of care setting, and duration of care (full/part time).	For Federal tax allowance: least of childcare expenses, of earned income (of spouse with lowest earnings) or limits based on age of child. For OCCS: greater of 50% of childcare expenses or percentage of earnings over a limit which varies with number of children.

Table 4.A1.3. **Childcare-related benefits, 2004** *(cont.)*

	Cash benefits and tax reductions for users of non-parental childcare	Benefits for parental care at home ("home care" and "child-raising" allowances)	Childcare facilities subsidised	Benefits income tested
	[1]	[2]	[3]	[4]
Czech Republic	—	Parental allowance (amounting to about 50% of the minimum wage) for a parent providing full-time care for at least one child up to age four.	Yes	No, but parental allowance is only paid to parents providing full-time care for their children.
Denmark	For low-income families, a graduated pay-scale reduces the (subsidised) fees by up to 100%. Reductions are shown as refund/rebate in the calculations presented here.	From July 2002, and on an optional basis, municipalities can pay a time-limited (one year) home-care allowance for pre-school children aged 24 weeks and over who are not in childcare. It is also conditional on one parent being at home and not on paid leave. The maximum amount is 85% of net childcare expenses for the relevant age-group or the maximum unemployment benefit, whichever is less. In 2006, 100 out of 270 municipalities have made this option available. It is not taken into account in the calculations presented here.	Heavily subsidised day care is available to all households with young children (parents only pay 30-33% of provider costs).	Yes. No fees are payable if family "personal income" (gross income minus contributions) is lower than about 40% of the average wage. Above that income level, the benefit/subsidy amounts to 28.5% of the fees. It is then linearly reduced until it is fully withdrawn once family "personal income" exceeds about 122% of the average wage.
Finland	Users of private childcare in the Helsinki area are entitled to a private day care allowance. This is comparable in size to the Helsinki municipal supplement to home-care allowance. However, the allowance is not modelled in this paper as the results in Finland refer to public day care.	Home care allowance and supplement (income-tested and payable for one child only) available to parents caring for own children aged under three. Increases with number of children cared for (aged under six). Parents in the Helsinki area, the region considered in this paper, are entitled to an additional supplement (not income-tested).	Heavily subsidised public day care is available to all children aged under seven (school age). Instead of home care allowance, there is a private day care allowance and supplement for users of private day care. This is paid directly to providers and is not accounted for in this paper (public care is assumed).	Public day care fees are a per cent of income exceeding a limit based on family size. Same income limits apply to the supplements for home care and private day care but not to the allowances.
France	For children born from 1st january 2004, a unified and revised system of parental support (PAJE: *Prestation d'accueil du jeune enfant*) provides benefits that cover (some or all of) the social security contribution costs due for the employment of a qualified child-minder to care for children aged under six, either at the parents' or the carer's home. In addition, there is a refundable tax credit amounting to 25% of the cost of child-minders or centre-based care (subject to a ceiling).	As part of the new PAJE system, benefits are available to families with at least one child (one aged under three) on condition that the parent leaves (partially or totally) employment that has lasted at least two years for the 1st child, four years for the 2nd children and five years for the 3rd and further children. The monthly payment amounts to EUR 504 for parents with no employment and is reduced for part-time employees depending on working hours. The maximum benefit duration is six months. As parents with a two-year-old are therefore likely to have exhausted entitlement, the benefit is not taken into account in the results reported here.	Public sector crèches are subsidised. The majority of children are in free pre-school from age three.	Yes, ceilings based on number and age of children.
Germany	Expenses are tax deductible up to a limit.	Federal child-raising allowance for parents taking personal care of at least one child aged under two (alternatively, parents can claim higher benefits for only one year). Some states provide allowances for additional periods afterwards. Employment protection is provided for leave durations of up to three years.	Yes. Children aged 3-6 are entitled to a place in a kindergarten. Children of other ages are admitted if possible.	While parents receiving the child-raising allowance are entitled to work up to 30 hours/week, eligibility is income-dependent. In addition, the allowance is gradually reduced after six months for parents with income above certain limits.

Table 4.A1.3. **Childcare-related benefits, 2004** *(cont.)*

	Cash benefits and tax reductions for users of non-parental childcare	Benefits for parental care at home ("home care" and "child-raising" allowances)	Childcare facilities subsidised	Benefits income tested
	[1]	[2]	[3]	[4]
Greece	15% of expenses (but no more than EUR 75 per year) are tax deductible.	—	Yes in public nurseries.	Yes for public nurseries.
Hungary	—	1. "Childcare fee": insurance-based benefit available following expiry of the pregnancy-confinement benefit until the child turns two (70% of previous earnings up to a ceiling). 2. Child home-care allowance: universal benefit for non-working parent (or grandparent in the parents' home) raising a child younger than three (benefit amount equal to the minimum old-age pension). 3. Universal child raising support for all parents raising at least three children of which youngest is aged 3-8 (amount also equal to the minimum pension).	—	—
Iceland	—	—	Pre-schools and child minders ("day mothers") are heavily subsidised by municipalities.	—
Ireland	—	New carers allowance is a tax credit for families where one parent stays at home to care for children.	Public childcare not well developed, limited subsidies for private provision.	Yes based on working spouse's income up to limit, benefit reduced above limit.
Italy	—	—	In Rome, 80% of nurseries for children aged under three are public and subsidised; 90% of children aged 3-5 attend school.	Depends on municipality.
Japan	—	—	Public (municipal) day-care centres are subsidised (covering about 60% of total cost).	—
Korea	Income-dependent benefits (fee reductions) for low-income families amounting to 30-100% of fees. SA recipients are fully compensated for child "educare" centre fees paid for children under six. Tax allowance to cover childcare expenses of working mothers or lone-parent fathers up to limit.	—	Public sector childcare is subsidised.	Yes. Benefits decrease in discrete steps.
Luxembourg	Childcare costs are partly tax deductible, if the level is deemed extraordinary (unlikely in the case of the income-dependent fees charged by public creches so tax deductibility is not taken into account in the results presented here).	Parents not in the labour force and looking after a child aged under two at home are entitled to a benefit of around EUR 450 for a maximum duration of 12 months.	All public facilities are subsidised and fees are regulated.	For the childcare benefit there are no salary conditions (but if one parent has half time job then payment is 50% of benefit) and no employment conditions if family income is below a limit (which depends on number of children).
Netherlands	Formal childcare costs are tax deductible (up to a limit), amount depends on whether care is full-time or part-time and on number of children. There is also a tax credit for working parents. Fees waived (up to a limit) for lone parents during at least 1 year after taking up work.[2]	—	Local government and employers subsidise childcare centres (costs covered by employers are partly deductible from payroll tax).	

Table 4.A1.3. **Childcare-related benefits, 2004** *(cont.)*

	Cash benefits and tax reductions for users of non-parental childcare	Benefits for parental care at home ("home care" and "child-raising" allowances)	Childcare facilities subsidised	Benefits income tested
	[1]	[2]	[3]	[4]
New Zealand	Childcare subsidy available to parents of preschool children (paid directly to the provider whose childcare fees are then reduced by the amount of the subsidy). Similar program for part-time care for children aged 5-13 (OSCAR). In addition, of childcare expenses are tax deductible (subject to a limit).	—	All licensed pre-school facilities are subsidised.	Yes, childcare subsidy rate (as well as OSCAR) is related to income and number of children. Maximum 50 hours of subsidised care/week to cover periods of work-related activity. Up to nine hours of subsidised care per week for other families satisfying the income test.
Norway	Documented childcare expenses for children aged under 12 are tax deductible up to a limit (which varies with the number of children). Unused parts of the deduction are transferrable to the lower-income spouse.	Cash benefit for one and two-year olds who are not in subsidised childcare. The amount (reduced in case of part-time care) is roughly equivalent to the state subsidy to childcare centres for that age group.	Yes (all public and most private facilities). Subsidy covers about 80% of provider cost on average.	No, but home-care allowance is reduced for children in part-time care. The value of the tax deduction is higher for high-income taxpayers.
Poland	Unemployed lone parents taking up a new job or participating in training measures may be entitled to temporary compensation for care-related expenditures (not reflected in the calculations reported here, which relate to a transition to full-time work from a situation of labour market inactivity rather than unemployment).	For a parent caring for at least one child. Available for 24 months for couples, and for at least 36 months for lone parents or parents with twins. Requires recipient to be on childcare leave from employment (assumed to be the case in the calculations reported here).	—	No, fixed amount for one or more children.
Portugal	30% of formal childcare costs are tax deductible up to 160% of the National Minimum Wage. Limit is higher for families with three or more children.	—	State subsidies for public and non-profit facilities.	—
Slovak Republic	—	Home care allowance of SKK 3 790 per month for parents providing personal and proper care for a child up to age three. The condition of personal care of the parent or the qualifying person is also satisfied if parents engaged in gainful activities, secondary school or university studies, secure appropriate childcare by another adult outside a nursery, kindergarten or other equivalent facility.	—	Income from any source stops benefit.
Spain	Flat-rate deduction (EUR 1 200 per year) for working mothers and lone parents if at least one child aged under three. Additional deductions of childcare expenses in some communities.[1]	—	Yes. Most children aged 3-5 are in subsidised public childcare or in school. Free childcare for families with serious socio-economic difficulties.	—
Sweden	—	—	Heavily subsidised by state and local governments. All 4-5 year olds get 525 hours a year (15 hours/week; 35 weeks/year) of free pre-school.	Yes, parents only pay (per child) 1-3% of their gross income in childcare fees. Percentage varies with number of children.

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Table 4.A1.3. **Childcare-related benefits, 2004** *(cont.)*

	Cash benefits and tax reductions for users of non-parental childcare	Benefits for parental care at home ("home care" and "child-raising" allowances)	Childcare facilities subsidised	Benefits income tested
	[1]	[2]	[3]	[4]
Switzerland (Zürich)	Not at federal level. 12 cantons provide for tax deductibility of eligible childcare costs for local income tax purposes. The maximum deductible amount in Zürich is SFR 3 000 per child.	Income and asset-tested home care allowance, available for up to two years after birth with a maximum of EUR 2 000 per month. The stay-at-home parent can work part-time but not more than 50%. The number of eligible families is limited as the income test is rather strict and, in the case of two-parent households, elegibility requires one parent to work full-time. Most other cantons also provide some form of income-tested home care allowance (but usually less genereous and sometimes only available to mothers).	Some facilities are subsidised. Considerable variation across cantons and municipalities.	—
United Kingdom	As part of the Working Tax Credit, low-income working parents may claim up to 70% of eligible childcare cost. At its maximum level, the monthly value of the CCTC amounts to approximately GPB 600. This childcare component is paid in addition to the regular Working Tax Credit.	—	No. Free part time care is provided for 4-5 year olds in nursery school education or reception class.	Income and asset test for recipients of the Working Tax Credit. At least one parent must be working 16 hours per week or more to be eligible.
United States (Michigan)	The (non-refundable) Child and Dependent Care Credit (CDCC) provides assistance to working taxpayers. A maximum of 35% of childcare costs (after CCDF and subject to a ceiling) can be claimed.	—	The Child Care and Development Fund (CCDF) is the main programme providing federal funding to subsidise childcare facilities through certificates or contracted programmes. CCDF subsidies are available for all legal forms of childcare provisions (both unregulated and licenses/regulated). States may also use up to 30% of Temporary Assistance for Needy Families (TANF) funds as childcare subsidies. In addition, the Social Service Block Grant (SSBG) provides funding to states for a range of social services, including childcare.	The CDCC is a higher percentage of childcare expenses for low-income families. Eligibility conditions for CCDF subsidies vary widely across States. In general only families with very low incomes are eligible. Phase-outs can be very steep resulting in marginal effective tax rates well in excess of 100% over the phase-out range.

— Not available or not applicable.

1. The possibility of deducting childcare expenses is not reflected in the calculations in the chapter due to insufficient information.
2. As with all benefit provisions available on a temporary basis only, this type of support is not taken into account in model calculations shown in this chapter.

Source: Information provided by delegates to the OECD Working Party on Social Policy.

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Figure 4.A1.1. **Starting employment for *second earners*: income gain net of childcare cost**

Different earnings levels[1]

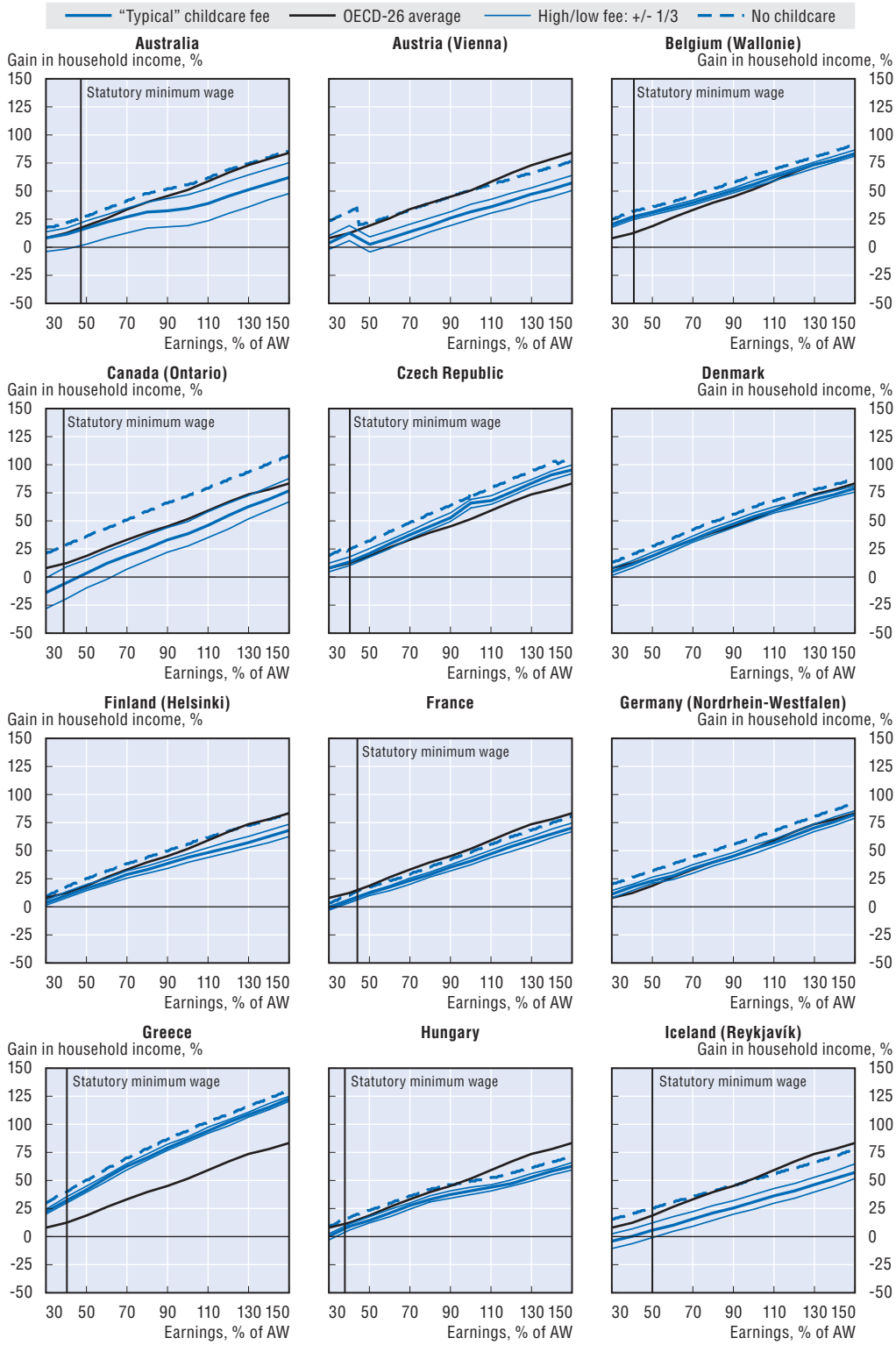

Figure 4.A1.1. **Starting employment for *second earners*: income gain net of childcare cost** *(cont.)*

Different earnings levels[1]

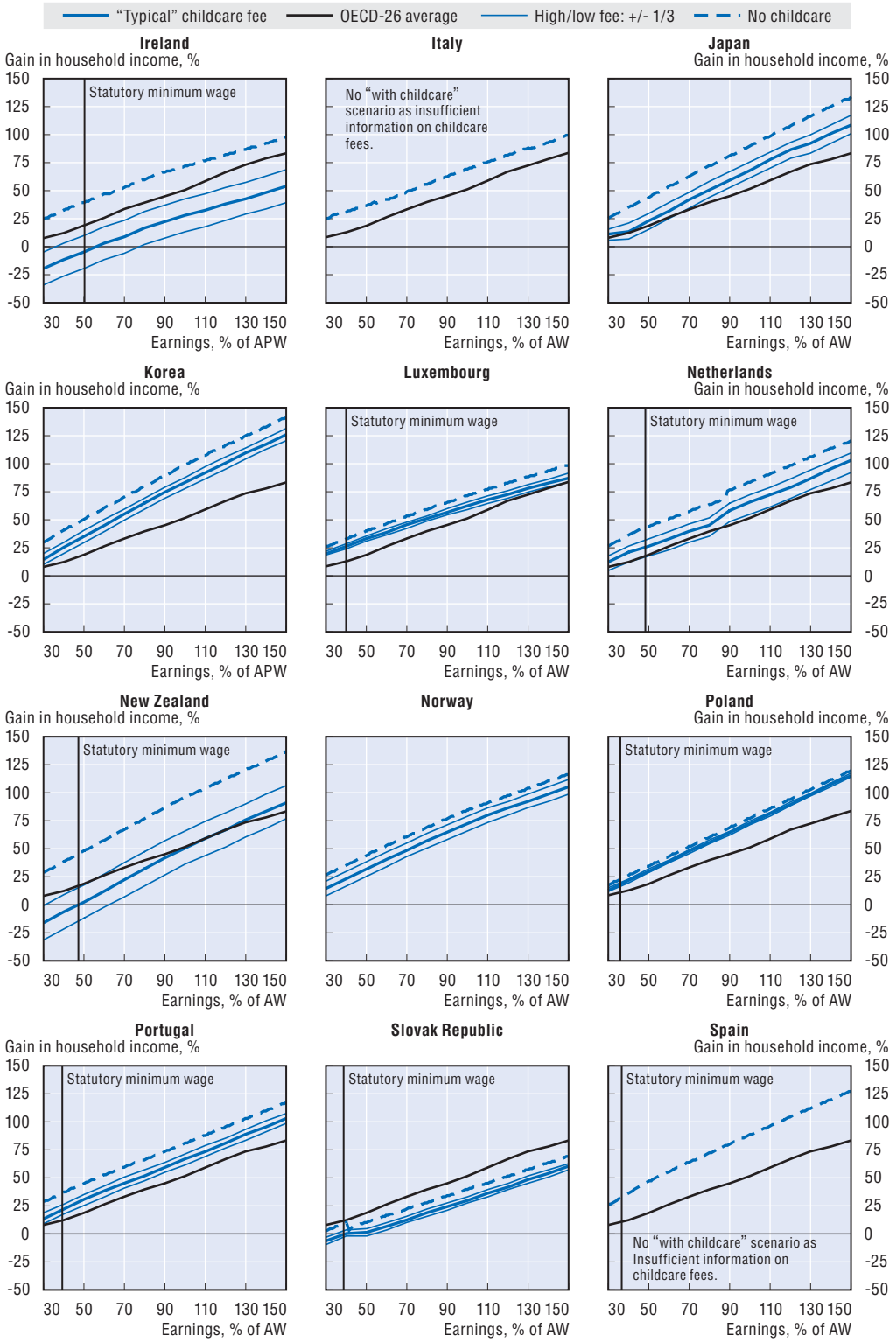

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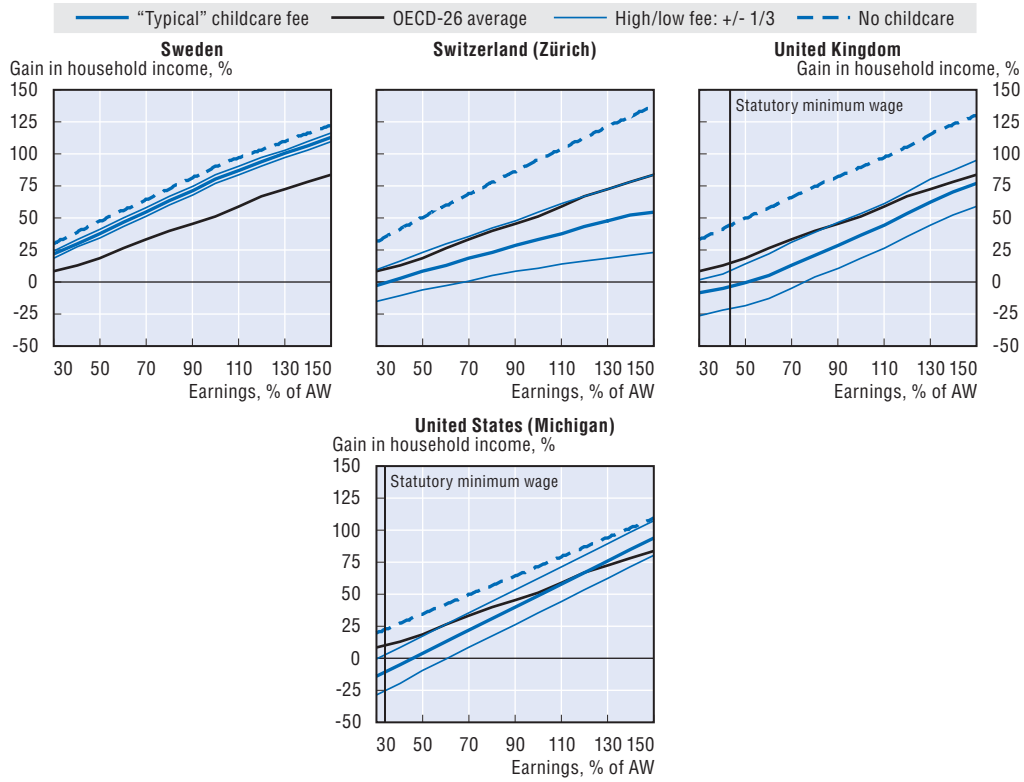
Figure 4.A1.1. **Starting employment for *second earners*: income gain net of childcare cost** *(cont.)*

Different earnings levels[1]



1. Averages are the median values over 26 countries. Relative income gain resulting from a transition from labour-market inactivity into a full-time job paying various fractions of the average wage (AW). Assumes full-time centre based care while in work and no childcare costs while out of work. Children are aged two and three. The first earner in two-parent families is full-time employed with average earnings. The earnings of full-time minimum wage earners are shown in countries where statutory minimum wages exist. Further details on the model calculations are discussed in Annex A. Benefits available only on a temporary basis immediately following the transition into work are not taken into account. See Annex Tables 4.A1.2 and 4.A1.3 for information on childcare fees and benefits.

Source: OECD Tax-Benefit Models.

Figure 4.A1.2. **Starting employment for *lone parents*: income gain net of childcare cost**

Different earnings levels[1]

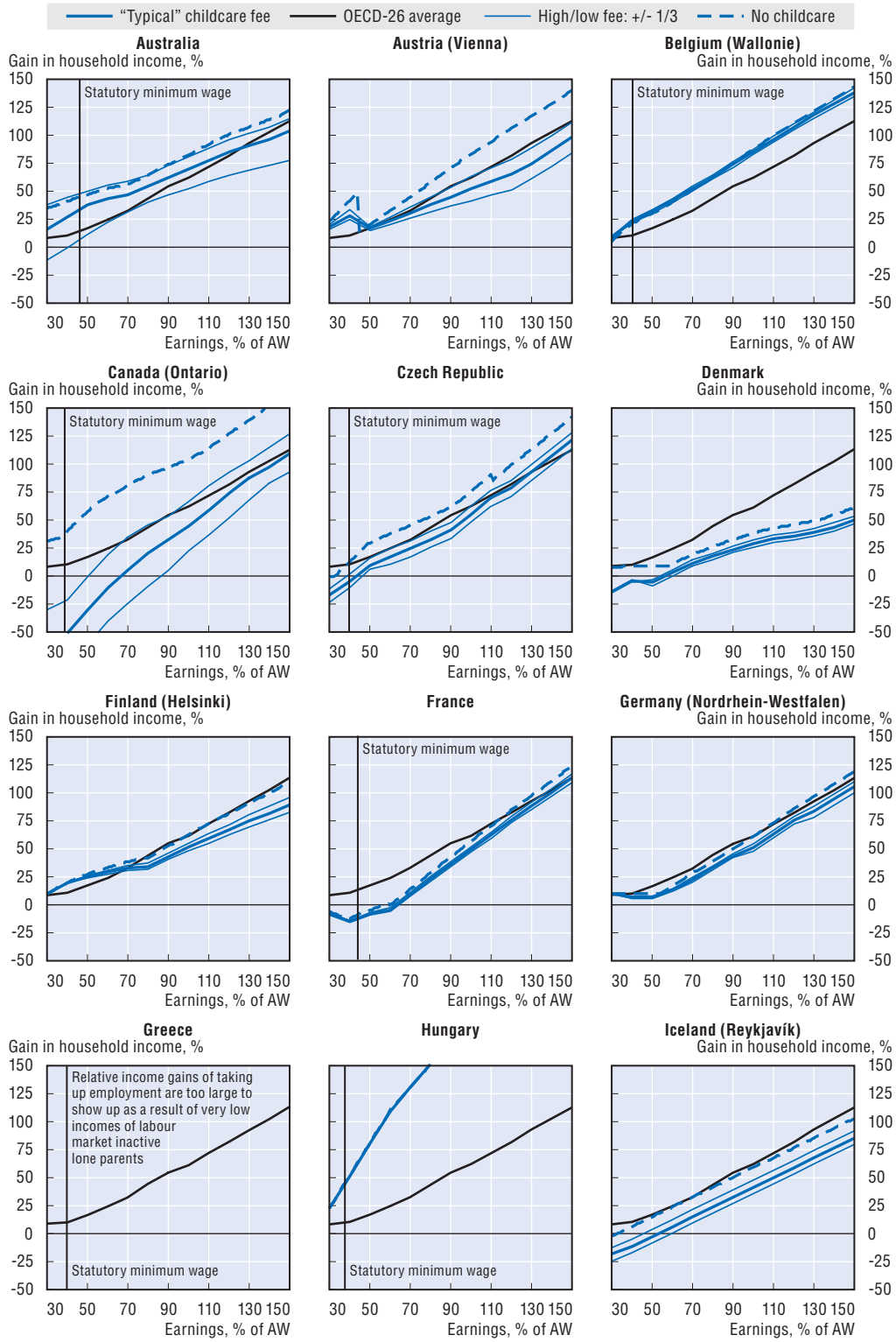


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Figure 4.A1.2. **Starting employment for *lone parents*: income gain net of childcare cost** *(cont.)*

Different earnings levels[1]

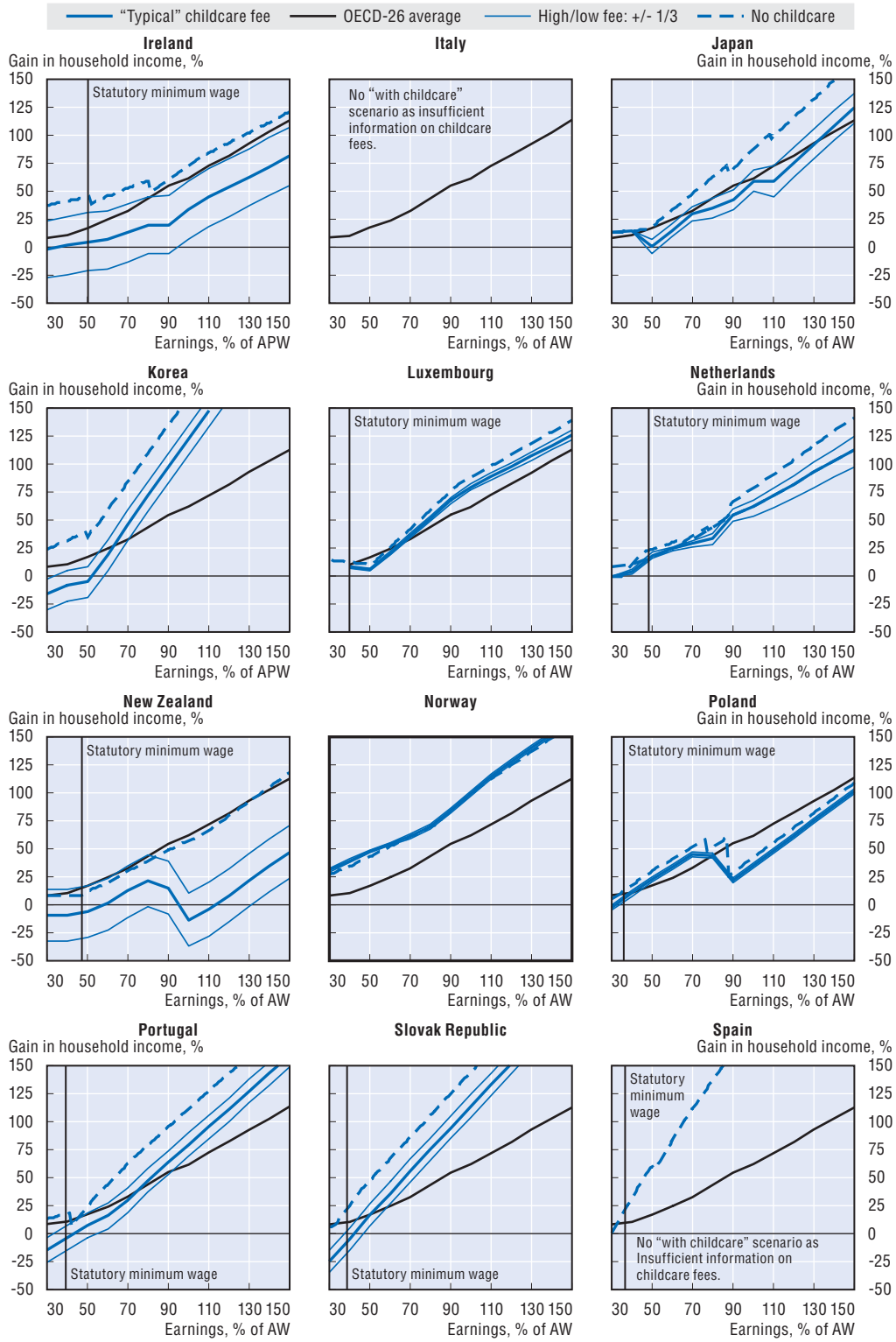
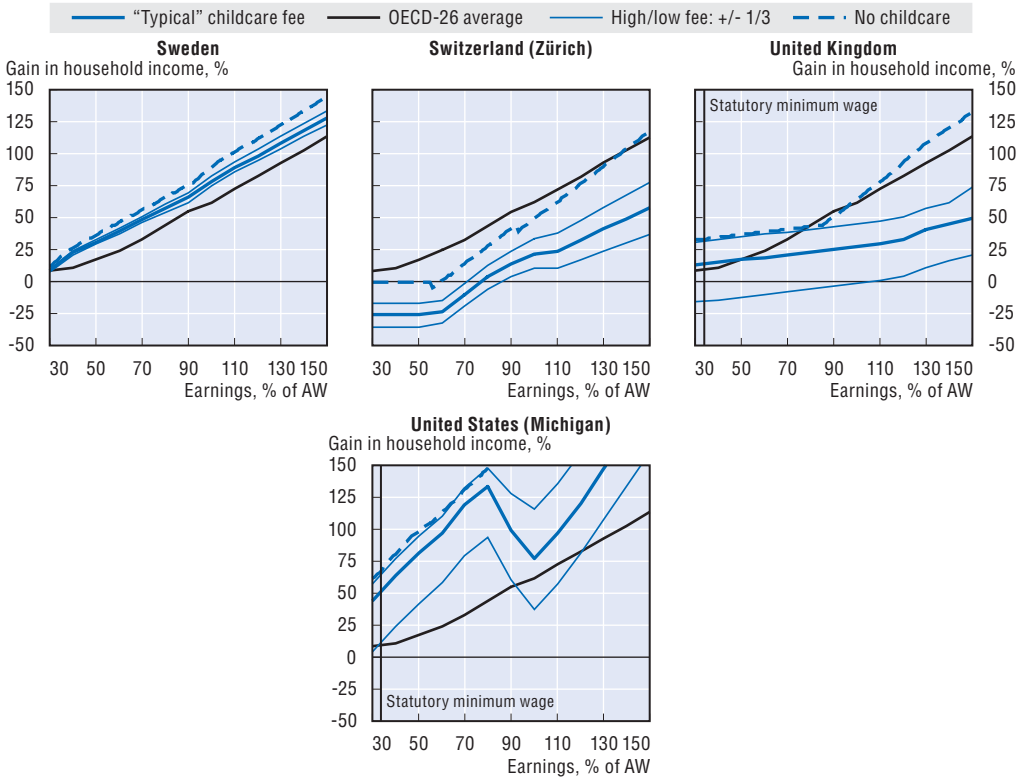


Figure 4.A1.2. **Starting employment for *lone parents*: income gain net of childcare cost** *(cont.)*

Different earnings levels[1]



1. Averages are the median values over 26 countries. Relative income gain resulting from a transition from labour-market inactivity into a full-time job paying various fractions of the average wage (AW). Assumes full-time centre based care while in work and no childcare costs while out of work. Children are aged two and three. Earnings of full-time minimum wage earners are shown in countries where statutory minimum wages exist. Further details on the model calculations are discussed in Annex A. Benefits available only on a temporary basis immediately following the transition into work are not taken into account. See Annex Tables 4.A1.2 and 4.A1.3 for information on childcare fees and benefits.

Source: OECD Tax-Benefit Models.

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Chapter 5

Tax and Benefit-System Reforms

Introduction

The story of reforms to the tax and benefit system in OECD countries in recent years has been dominated by two main objectives: to strive to increase incentives to work, and to increase family incomes, especially where children are present. Neither objective is new, but whereas in previous years other objectives have also played a prominent role (for example, attempts to reduce the fiscal cost of the benefit system) these two objectives now explain a very large proportion of reform efforts. And the dilemma facing policymakers is that the two objectives are potentially in tension with one another.

The labour supply effects of any tax or benefit reform can be described using income and substitution effects. The income effect refers to the fact that if families have more money they are able to have more things that they value. If they value leisure time, or time spent looking after their children, then giving families more income will mean that they will work less. The substitution effect refers to the relative returns to working as compared to other activities. If a change in policy means that work brings less income than previously relative to not-working, then people will work less.

A general increase in family benefits, or child-related benefits, raises out-of-work incomes as well as in-work incomes. The income effect will reduce work. This might be offset, however, by designing benefit reforms to increase in-work incomes by more than out-of-work incomes. For example, focusing benefit reforms on increasing support for those in work by more might increase work incentives through the substitution effect. As will be described below, there is ample evidence that countries have this sort of approach in mind when they have designed recent benefit reforms. In-work benefits or employment-conditional tax credits have continued to become more important. A similar effect can be gained by reducing the costs of childcare, for example by giving tax relief on childcare spending, or designing benefits which subsidise childcare expenses. Because parents who do not work will not generally be heavy users of formal childcare, such tax or benefit reforms increase in-work incomes by more than out-of-work incomes, and so again tend to increase the returns to working compared with not working.

Section 1 considers how countries have balanced this potential tension in introducing reforms between 2003 and 2005. Section 2 discusses selected examples of country tax-benefit reforms.

1. Reforms: comparing changes in work incentives across countries

Table 5.1 provides a stylised summary of some of the reforms that have taken place since 2003.

- Efforts to increase the in-work incomes of workers have taken place in Belgium, France, Germany, Hungary, Ireland, Switzerland and the United States.
- Efforts to increase the incomes of low-income households with children, have taken place in Iceland, Sweden and the United Kingdom. A more general increase in incomes

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Table 5.1. **Reform initiatives since 2003**

Country	Nature of the reform	Effect of the reform on work incentives
Austria	Increased benefits for families with children	Reduce work incentives
Belgium	1) Tightened work requirements	Reduce access to benefit
	2) Reduction in social security contributions	Increase in work incentives generally
Czech Republic	1) Increase in unemployment insurance duration 2) Allow more earnings to be combined with benefits	Mixed; generally increase work incentives
France	Increase in in-work benefit	Increase work incentives
Finland	Increased unemployment benefits	Mixed (combined with reform of severance pay)
Germany	1) Tax reform reduced marginal tax rates 2) Minijob reform: helps social assistance recipients get "small" amounts of work 3) Social assistance (and unemployment benefit) reform.	Reduced benefit levels; generally increase work incentives
Hungary	1) Restructured contributions; 2) Allow more earnings to be combined with benefits 3) Duration of unemployment insurance altered, generally reduced.	Increase work incentives for some disadvantaged groups
Iceland	Increased child benefits	Increase entitlements for families with children
Ireland	1) Extended partial benefits	Increase incentives to work
	2) Habitual residence test	Reduce entitlements for immigrants
Italy	Increased unemployment insurance	Increase entitlements generally
Netherlands	1) New childcare system	Increase work incentives for parents
	2) Contribution period for unemployment insurance tightened	Reduce access to benefit
New Zealand	1) Increased family payments 2) Increased in-work payments	Mixed; generally increase work incentives and increase entitlements
Portugal	Duration of unemployment insurance reduced	Reduce access to benefit, increased work incentives for some.
Slovak Republic	1) Reduced social assistance benefits 2) Tax reform	Increase work incentives
Sweden	Changes in a number of family-related benefits	Increased entitlements for families with children
Switzerland	Reduction in social assistance, increase in in-work support	Increase work incentives
United Kingdom	Restructuring of in-work credits	Increased entitlements for families with children
United States	1) Assets limits raised	Increase entitlements generally
	2) Food stamp eligibility to immigrants	Increase entitlements for immigrants
	3) Child tax credit increased	Increase entitlements for families with children
	4) Reduction in tax	Increase work incentives

Source: OECD Tax-Benefit Models. Information from national authorities.

of unemployed households has taken place in Italy. Some changes in the United States have increased access to benefits for some groups.

Beyond these two objectives, there have been efforts to restrict access to benefit and to reduce payment levels in Germany, but also (for particular groups) in Ireland and the Netherlands.

These changes have resulted in changes in the values of indicators presented in this publication. Section 4 in Chapter 3 described overall changes in a synthetic net replacement rate indicator during the past five years. Table 5.2 presents changes in net replacement rates between 2001 and 2005 in a more detailed way. The table is in three parts.

Table 5.2*a* assumes that adult individuals are eligible for unemployment benefits, where relevant – that they have made sufficient contributions to qualify for unemployment insurance, for example. Table 5.2*b* assumes that where there are contribution or employment conditions which need to be satisfied in order to qualify for a benefit, these have *not* been satisfied. This might be considered as illustrating the case for people with weak employment

Table 5.2*a*. **Net replacement rates for persons receiving unemployment benefits at the initial level, 2001-2005, different earnings levels**[1]

Percentage point changes

	67% of AW level						100% of AW level						150% of AW level					
	No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	–4	–3	0	2	1	–3	–3	–3	0	–1	–1	–2	–2	–2	0	–1	–1	–1
Austria	0	0	0	–1	–2	1	0	0	0	–1	–1	1	–3	–3	–2	–1	–1	–1
Belgium	0	–1	0	0	1	0	0	–1	0	0	1	0	1	0	1	1	1	1
Canada	1	0	0	1	1	–1	–1	–1	–1	1	1	–1	–2	–2	–2	–1	–1	–2
Czech Republic	–3	1	0	–4	–7	–2	–2	–1	0	–4	–4	–2	0	–2	0	–8	–6	0
Denmark	0	0	0	0	0	0	–1	0	–1	–2	–1	–1	–1	–1	–1	–1	–1	–1
Finland	–3	–1	–1	–2	–2	–1	–5	–3	–1	–4	–4	–2	–1	–2	–1	–3	–3	–1
France	1	1	1	0	0	1	–2	–2	–1	–5	–4	–1	–2	–2	–1	–1	–1	–1
Germany	0	–2	0	0	–3	0	0	0	0	0	–2	0	–3	–3	–2	–1	–3	–2
Greece	1	1	–1	2	2	–2	2	2	0	2	2	–1	1	1	0	1	1	–1
Hungary	–7	–3	–2	4	4	–1	–3	–1	0	6	6	0	–1	1	1	5	5	1
Iceland	4	4	1	2	4	1	3	4	1	1	4	1	2	3	1	1	3	1
Ireland[2]	4	9	1	–17	3	–1	3	6	1	–15	5	–1	3	5	2	–10	5	1
Italy	12	11	6	8	7	4	11	13	7	10	8	6	1	0	1	–1	–3	1
Japan	0	1	–1	3	1	–1	–5	–4	–4	–5	–4	–3	–13	–12	–9	–12	–12	–9
Korea[2]	0	0	0	0	0	0	–7	–7	–4	–7	–7	–4	–13	–13	–9	–13	–13	–9
Luxembourg	0	0	0	0	0	0	0	–1	0	1	0	0	2	2	2	1	2	2
Netherlands	0	1	–1	–1	1	–1	–2	–2	–2	–1	–1	–2	–4	–4	–3	–4	–4	–3
New Zealand	–2	–6	1	–2	1	2	–2	0	1	0	2	2	–1	0	1	1	3	2
Norway	1	1	0	1	0	0	0	1	0	1	1	0	0	1	0	0	0	–1
Poland	2	2	1	32	2	0	2	2	1	25	2	0	1	1	1	15	3	–2
Portugal	–1	–1	0	9	9	0	0	–1	0	2	0	0	0	0	0	2	0	0
Slovak Republic	–6	–14	2	–15	–19	–1	10	2	8	–1	–6	6	29	22	21	18	14	15
Spain	0	1	0	0	0	0	–1	–2	–1	0	0	0	–1	–1	–1	–2	–2	–1
Sweden	0	0	0	–1	–1	0	–3	–3	–2	–4	–4	–2	–2	–2	–1	–3	–2	–1
Switzerland	0	2	0	–1	–1	0	0	0	0	1	1	0	–1	–1	6	–1	–1	0
United Kingdom	–1	–1	–1	19	19	0	–1	–1	–1	16	16	0	–1	–1	–1	10	11	0
United States	0	–2	1	–1	–2	1	0	–2	0	–1	–3	0	3	3	3	3	2	3

StatLink http://dx.doi.org/10.1787/141587745581

1. Initial phase of unemployment but following any waiting period. No social assistance "top-ups" are assumed to be available in either the in-work or out-of-work situations. Any income taxes payable on unemployment benefits are determined in relation to annualised benefit values (*i.e.* monthly values multiplied by 12) even if the maximum benefit duration is shorter than 12 months. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are aged four and six and neither childcare benefits nor childcare costs are considered.
2. AW value is not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

histories. Table 5.2*c* considers people who have been unemployed for five years. In most cases, this means that people who initially qualified for unemployment insurance will have exhausted their entitlements, and will be on whatever supplementary schemes (social assistance, unemployment assistance) are in place. However, in one or two cases, even people who have been unemployed for five years will still have some entitlement to social insurance benefits. In all three cases, a range of family types (single person, lone parent, two adults with and without children, one adult working or both adults working) and earnings levels (two-thirds of average wages, average wages and one and a half times average wages) are shown.

Table 5.2*b*. **Net replacement rates for persons not receiving unemployment benefits, 2001-2005, different earnings levels**[1]

Percentage point changes

	67% of AW level						100% of AW level						150% of AW level					
	No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	–4	–3	0	2	1	–3	–3	–3	0	–1	–1	–2	–2	–2	0	–1	–1	–1
Austria	–4	–3	0	–9	–9	2	–2	–2	0	–5	–5	2	–2	–2	0	–4	–4	1
Belgium	0	–1	–1	1	0	–1	0	–1	0	1	0	0	0	0	1	1	0	0
Canada	–1	–2	0	9	9	0	–1	–1	0	8	7	0	0	–1	0	6	6	0
Czech Republic	–8	–10	–3	–8	–15	1	–5	–9	–2	–8	–10	1	–4	–6	–1	–8	–10	0
Denmark	–2	–1	0	–3	–1	0	–2	0	–1	–4	–1	–1	–2	–1	–1	–3	–1	–1
Finland	–5	–4	–2	–3	–6	–1	–3	–5	–2	–4	–7	–1	–3	–4	–1	–3	–5	–1
France	–3	–3	0	–2	0	–2	–2	–2	0	–3	–1	–1	–1	–1	0	–1	–1	–1
Germany	2	3	0	6	5	1	1	2	0	4	5	0	1	2	0	3	4	1
Greece	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
Hungary	–3	–8	0	8	5	0	–2	–4	1	8	6	1	–1	–2	2	7	6	1
Iceland	4	–2	2	3	–2	2	3	1	1	2	1	2	2	1	1	2	1	2
Ireland[2]	3	9	–2	2	1	3	2	5	–1	2	4	3	2	5	0	3	5	3
Italy	0	0	–4	0	0	–3	0	0	–3	0	0	–4	0	0	–2	0	0	–2
Japan	1	2	–1	–5	2	–1	1	1	–1	2	1	0	1	1	–1	1	1	0
Korea[2]	–4	–7	0	–11	–8	–4	–3	–5	0	–8	–10	–4	–2	–3	0	–5	–6	–2
Luxembourg	1	3	–1	2	1	2	0	1	–1	2	2	1	0	1	–1	1	1	1
Netherlands	2	2	0	–1	–1	1	1	0	0	0	0	1	0	0	–1	0	0	0
New Zealand	–2	–6	1	–2	1	2	–2	0	1	0	2	2	–1	0	1	1	3	2
Norway	–2	–6	0	–7	–2	0	–2	–4	0	–6	–2	–1	–1	–3	0	–5	–2	–1
Poland	–2	–9	0	9	–1	3	–1	–6	0	7	0	2	–1	–4	0	3	1	0
Portugal	2	3	0	4	5	0	1	2	0	4	4	0	1	2	0	3	3	0
Slovak Republic	–49	–73	2	–58	–70	–6	–33	–50	2	–44	–61	–5	–23	–35	2	–34	–46	–6
Spain	1	1	0	0	–5	0	0	1	0	0	–4	0	0	1	0	0	–3	0
Sweden	–2	–3	0	0	–2	–1	–1	–2	0	–1	–3	–1	0	–1	0	–1	–2	–1
Switzerland	–7	–9	–1	–12	–14	0	–5	–7	–1	–9	–10	0	–4	–5	1	–6	–7	0
United Kingdom	–1	–2	0	5	3	0	–1	–1	0	3	2	0	–1	–1	0	1	1	0
United States	0	–1	0	–4	–4	0	0	–1	0	–3	–4	0	0	–1	0	–2	–3	0

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1. Results relate to the situation of a person who is not entitled to unemployment benefits (*e.g.* because they entitlements have expired). Instead, social assistance and other means-tested benefits are assumed to be available subject to relevant income conditions. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be inactive with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are aged four and six and neither childcare benefits nor childcare costs are considered.
2. AW value is not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

The first thing that stands out from these tables is that, in most cases, changes are small. Net replacement rates have moved up or down a few percentage points, no more than that, except in a few countries, discussed in more detail below. This is in line with previous discussions of benefit reforms: it is rare indeed that benefit *levels* are changed substantially from one year to the next. Substantial changes arise from the cumulation of small changes over many years; from changes in the access of groups to different types of benefit; changes in the duration over which a benefit can be received; or changes in the *in-work* tax and benefit system, but only very occasionally from decisions to change the level of benefit payments.

Table 5.2c. **Net replacement rates for long-term unemployed persons, 2001-2005, different earnings levels**[1]

Percentage point changes

	67% of AW level						100% of AW level						150% of AW level					
	No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	–4	–3	0	1	1	–4	–3	–3	0	–2	–1	–3	–2	–2	0	–1	–1	–1
Austria	–4	–3	0	–9	–9	–4	0	0	–1	0	–3	–3	–3	–2	–3	–1	–1	–3
Belgium	7	–1	0	0	2	0	4	–2	0	0	1	0	4	0	2	1	1	1
Canada	–1	–1	0	1	0	0	0	–1	0	0	0	0	–1	0	0	0	0	0
Czech Republic	–8	–9	–3	–8	–16	0	–5	–9	–1	–8	–9	0	–4	–6	–2	–8	–10	–1
Denmark	–1	0	–1	–2	–1	0	–2	0	–1	–4	–1	–1	–1	0	–1	–2	0	–1
Finland	–4	–4	1	1	–7	2	–4	–6	0	–1	–7	1	–2	–4	0	–1	–5	1
France	–2	0	–1	1	2	–2	–2	0	0	–2	0	–1	–1	0	0	0	1	–1
Germany	–9	–6	–11	–3	–2	–10	–18	–8	–18	–2	–1	–18	–29	–22	–27	–14	–16	–26
Greece	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Hungary	–3	–8	0	8	6	6	–1	–4	1	8	6	7	0	–2	2	7	6	7
Iceland	4	–1	2	2	–2	1	3	0	2	1	1	1	2	1	2	1	0	1
Ireland[2]	3	8	–1	2	0	3	2	5	–1	2	4	3	2	5	0	2	5	3
Italy	0	0	–4	0	0	–3	0	0	–3	0	0	–3	0	0	–2	0	0	–2
Japan	1	2	–1	–5	2	0	1	2	–1	2	1	0	1	1	0	1	0	–1
Korea[2]	–4	–7	0	–12	–8	–5	–3	–5	0	–8	–10	–3	–2	–2	0	–5	–7	–3
Luxembourg	0	3	0	2	1	1	0	1	–1	2	2	1	0	0	–1	2	2	1
Netherlands	2	2	–1	–1	–1	–1	1	0	–1	0	–1	0	1	0	–1	0	–1	–1
New Zealand	–2	–5	1	–2	1	2	–2	0	1	0	2	2	–1	0	1	1	2	2
Norway	–2	–6	0	–12	–3	–1	–2	–4	–1	–9	–2	–1	–1	–3	0	–8	–1	–1
Poland	–1	–9	0	4	0	3	–2	–6	0	2	0	2	–1	–4	0	0	1	0
Portugal	2	4	0	4	6	0	2	2	1	4	3	0	1	2	0	3	3	0
Slovak Republic	–49	–73	0	–58	–70	–10	–34	–50	0	–44	–61	–8	–23	–35	1	–33	–46	–9
Spain	1	1	0	1	–5	0	0	1	0	1	–4	0	0	0	–1	0	–3	0
Sweden	–2	–3	0	0	–2	–1	–1	–2	0	–1	–2	–1	–1	–1	0	–1	–2	0
Switzerland	–7	–9	0	–12	–14	1	–5	–7	0	–9	–9	1	–4	–6	2	–6	–7	0
United Kingdom	–1	–2	0	5	3	–1	–1	–1	0	3	2	–1	–1	–2	–1	2	1	–1
United States	–1	–1	0	–4	–5	–1	0	–1	0	–3	–4	0	0	–1	0	–2	–2	0

StatLink http://dx.doi.org/10.1787/141651011517

1. After tax and including unemployment benefits, social assistance, family and housing benefits in the 60th month of benefit receipt. For married couples the per cent of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are aged four and six and neither childcare benefits nor childcare costs are considered.
2. AW value is not available. Calculations are based on APW.

Source: OECD Tax-Benefit Models.

On average, net replacement rates for people receiving unemployment benefits at the initial level did not change between 2001 and 2005. Net replacement rates for people not entitled to unemployment benefits, and for the long-term unemployed people, fell on average across the OECD somewhat between 2001 and 2005. However, much of this just reflects the few big changes which have taken place. If the Slovak Republic is excluded from the average, then the situation for social assistance and long-term unemployed people is as for short-term unemployed people – there has been no change in the average between 2001 and 2005. What is more, this conclusion holds across earnings levels and family types.

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Moreover, Sections 4 and 5 in Chapter 3 show that, similarly, other work incentive indicators such as average and marginal effective tax rates have changed little in a large majority of countries during the past five years.

There is a risk that such a conclusion gives the impression of stasis and inactivity in benefit reform. Such a conclusion would not be justified – there have been a number of significant reforms in some countries, and the rest of this chapter discusses them in more detail.

2. Selected examples of country reforms

a) Major structural reforms: Germany and the Slovak Republic

In many respects, ***Germany*** has had the most active and controversial series of reforms within the OECD area. A reform in 2001 had already lowered taxes (from around 23% in the first bracket to 15% and from 51% to 42% for top-rate taxpayers). The next big change was the introduction in 2003 of the so-called "minijobs". Jobs which pay up to EUR 400 per month give rise to no social security contributions, and no taxation. The purpose of such a reform is to get people in receipt of benefit to have some contact with the labour market, in the hope that people will subsequently manage to get the skills and contacts to find a better paying job subsequently. These minijobs have been moderately successful in one sense – take-up has been high, increasing the living standards of some of the least well-off people in society (though there are some exceptions – people in receipt of social assistance get reduced benefit to reflect the minijob income, and so do not get the full EUR 400). However, in another sense, they have been disappointing: there has been little evidence that they have led on to "better" jobs.

Perhaps more generally interesting (and certainly having a much bigger effect on work incentives) has been what is commonly known as "Hartz IV", this being the fourth in a series of reforms inspired by a commission looking at benefit-system reform in Germany under the chairmanship of a person with this name.

Most countries let those who still require income support after unemployment insurance runs out rely on social assistance. Germany, in contrast, had a second unemployment benefit system, paying a higher rate of benefit than social assistance, available to those who had exhausted their unemployment insurance. The Hartz IV reform merged this second benefit into the social assistance system, in effect cutting benefit payments quite sharply for the long-term unemployed. Furthermore, the duration of the initial unemployment insurance benefit has been cut for many people, so that all now just get 12 months insurance (unless over 55, in which case insurance lasts for 18 months), subsequently having to rely on the lower level of benefit.

To be more precise, the old system paid 12-30 months of benefit at a rate of 60-67% of prior net salary, followed by an unlimited period of payments of 53-57% of prior net salary. The new system pays 60-67% for 12 or 18 months, followed by a payment of around EUR 345 per month. A typical long-term unemployed person can therefore expect to see their benefit fall by around EUR 150 per month. Furthermore, because the new payment is means-tested, perhaps a quarter of those who were entitled to the old benefit would not be entitled to anything from the new benefit.

The effects of these reforms can clearly be seen when comparing net replacement rates before and after the Hartz IV reforms, using the methodology of this publication (Table 5.3). Benefit levels for long-term benefit recipients fell for all the main cases considered. Falls were generally larger for those who had higher earnings – reflecting the

Table 5.3. **Net replacement rates for long-term benefit recipients:[1] the effect of the Hartz IV reform in Germany**

Family type	Number of children	Earnings prior to unemployment (% of average earnings)[2]	Fall in the net replacement rate between 2003 and 2005
Single	0	67	10
One-earner	0	67	7
Two-earner	0	67	11
Single	2	67	3
One-earner	2	67	3
Two-earner	2	67	10
Single	0	100	19
One-earner	0	100	8
Two-earner	0	100	19
Single	2	100	2
One-earner	2	100	2
Two-earner	2	100	18
Single	0	150	29
One-earner	0	150	22
Two-earner	0	150	27
Single	2	150	14
One-earner	2	150	16
Two-earner	2	150	27

StatLink http://dx.doi.org/10.1787/141656713018

1. After tax and including unemployment benefits, social assistance, family and housing benefits in the 60th month of benefit receipt.
2. For married couples the percentage of AW relates to one spouse only; the second spouse is assumed to be "inactive" with no earnings in a one-earner couple and to have full-time earnings equal to 67% of AW in a two-earner couple. Children are aged four and six and neither childcare benefits nor childcare costs are considered.

Source: OECD Tax-Benefit Models.

move from a benefit calculated as a percentage of previous earnings to one based on a flat rate. Falls were also generally smaller in households with children – families with children received somewhat favourable treatment compared to childless families.

It is unlikely that the wave of reforms in Germany has yet played itself out. In particular, there is an ongoing debate about the desirability or otherwise of introducing an in-work benefit or tax credit. A number of studies (*e.g.* Haan and Myck, 2007) have suggested that while an in-work benefit could have a large positive effect on the employment rate of single people, there could be a countervailing reduction in employment among two adult households. Others contend this finding, arguing that the positive effects could be purchased at lower "cost" in terms of lost employment in dual-earner households through appropriate design (*e.g.* Immervoll, 2005). The debate is complicated by the absence of a minimum wage in Germany: some see an in-work benefit as substituting for a minimum wage, whereas others see the lack of a minimum wage as a barrier to introducing an in-work benefit, on the grounds that nothing will stop employers driving wages down in response. As yet, it is not clear how this debate will end.

Even the dramatic changes that have taken place in Germany are dwarfed in impact by the sweeping changes that have taken place to both the tax and the benefit systems in the ***Slovak Republic***. In 2004, the benefit system was revamped to restrict access to benefits and to reduce rates of payment of social assistance benefits in particular. This was in response to the high levels of benefit dependency in the country, which was seen by the government as imposing excessively high public expenditure costs. The work incentive effects were also substantial – larger families with children could receive more from social benefits than from work.

One little-noticed element of the reform is the introduction of "activation pay" which can be received in addition to social benefits, provided that unemployed people work at least ten hours a week in municipality-sponsored public work programmes. The activation pay can result in additional payments worth around one half of the social assistance payment. Take up of this activation pay appears to have been quite high.

In addition, in regions with particularly poor unemployment rates there are subsidies to encourage hiring of the long-term unemployed, and a range of special payments for children from poor familites have been put in place.

In addition, the tax reform has been changed radically. Before the reform, the personal income tax (PIT) had a progressive rate structure with five income brackets with marginal tax rates of 10%, 20%, 28%, 35% and 38%. The reform has set a flat tax rate of 19% (the same rate as the VAT and the corporation tax), together with a substantially increased tax exemption, which has substantially reduced the average tax rate on low wage workers. Someone on the minimum wage will pay no income tax whatsoever. Indeed, a restructuring of the system of payments for children means that there may even be net payments from the fiscal authorities to low-earning families. This is because of the introduction of what is in effect an in-work payment: a refundable child tax credit has been put in place, conditional on at least one parent earning at least half of the minimum wage.

Overall, the changes have not altered net replacement rates for those receiving unemployment benefits by that much. But the changes for single people, one-earner couples with and without children and lone parents who are in receipt of social assistance have been enormous – the reduction in benefit payments have led to a sharp increase in work incentives, possibly mitigated by increased poverty risks for some particular population groups. Average effective tax rates fell considerably for all family types including singles and two-earner couples, particularly for persons considering taking up part-time or lower-paid work (see Section 3 in Chapter 3).

b) Increasing work incentives: Belgium, France, Switzerland and the United Kingdom

The German debate is closely related to that which has taken place in ***Belgium*** as to how to reform its tax and benefit system in order to promote employment. The original Belgian intention, expounded in 2001, was to institute a refundable tax credit on low earnings, along the lines of the US Earned Income Tax Credit. The reform was substantial, worth up to EUR 500 per person, with EUR 3.3 billion being reserved for the project. The intention was to have a refundable credit (so that it benefited fully those with low earnings) but to base it on individual earnings, not means-testing it on household income as is the case with the "traditional" UK or US-type of in-work credit or employment-conditional tax credit. Of course, this means that people with low earnings in high income households also would have benefited from the credit, but the attraction of the approach is that the negative effects on the employment of such workers which would arise from a family-based system are avoided. Furthermore, by limiting the credit only to those working more than 13 hours a week, the problem of subsidising jobs which lead nowhere would be limited.

However, in 2004 a decision was made to instead go for an administratively simpler system of reducing (strictly, rebating) the social security contributions of low-wage employees. Workers earning up to EUR 2 000 per month benefit, with the maximum reduction being EUR 140 per month. One particularly ingenious element of the scheme is that the rebate is calculated on the basis of wage rates (or, rather, the full-time equivalent wage), so that those who have high wages but low hours worked do not benefit.

The effect of this reform is to reduce replacement rates, so increasing work incentives, without reducing out-of-work incomes. The impact on incentives is modest – net replacement rates are for most family types and income levels at about the same level in 2005 than they were in 2001 and average effective tax rates fell only by more than 2 percentage points for persons taking up half-time work.

France, too, has been revising its in-work payments. In 2000, the Prime Pour l'Emploi (PPE) was introduced. As in Belgium and Germany, much of the concern of policymakers has been to promote employment in jobless households, without reducing incentives to work in two-earner households. This has been achieved by partly individualizing the means test, so that it is not entirely on household income. In 2003, the PPE was increased significantly. This has been combined with a restructuring of the unemployment insurance system, with the maximum duration of benefit (for some categories of recipients) reduced to 23 months from 30. Furthermore, the various minimum income schemes have been raised slightly more rapidly than inflation. As a result, the net effect on work incentives has been to slightly increase them for people on unemployment benefits with previous average or above average earnings (net replacement rates fell by 1-5 percentage points between 2001 and 2005). The synthetic overall net replacement rate measure slightly decreased and the level of average effective tax rates appeared to be lower in 2005 than in 2001 throughout the earnings range and for all family types.

The United Kingdom was the first country to implement an in-work payment in the early 1970s, and the payment has been the subject of a number of reforms since. In 2003, the version of the payment then in place – the Working Family Tax Credit – was replaced by a two-part structure. The first part is the Child Tax Credit, which is available to all families with children regardless of their work status and which is intended as a tool to tackle child poverty. It is an objective of the government to eliminate child poverty by 2020. The second part is the introduction of the Working Tax Credit, which is an in-work payment, intended to increase incentives to work. As this is available to all, regardless of whether they have children, single people and couples without children have been the main gainers from this change.

The value of these payments are substantial, being worth up to around GBP 3 000 per year, and even this figure excludes the childcare credit, which itself can be worth GBP 140 per week for one child, and GBP 240 per week for two children. (Also announced in 2004 was a doubling in the assets limits applying to various means-tested benefits.)

The UK system has provided a way for the government to reconcile its twin objectives of increasing the incomes of households with children without damaging incentives to work to an extent that its "welfare-to-work" agenda is undermined. Nevertheless, the policy is not entirely problem free. Apart from the high fiscal cost of the tax credits, there have been problems is getting the right amount of money to the right people, and there have been many problems of fraud on the one hand and under claiming of benefits on the other. Furthermore, the policy has extended income testing to a larger group of the population. The marginal effective tax rate (METR) is the percentage of additional earnings which is lost either in the form of increased taxation or reduced benefits. The higher is the METR, the lower is the incentive to increase earnings, either by working more hours or by finding a job with higher pay (which in turn might involve extra training). Therefore high METRs might reduce the hours worked by those who work and reduce the amount of training which people undertake. Table 5.4 shows that lone parents and one-earner couples with children can face particularly high METRs up to 89% arising from moving

Table 5.4. **Marginal effective tax rates for different earnings transitions, United Kingdom**

Holding hours worked constant at full-time hours, 2005[1]

	Minimum wage to 67% of average worker earnings		Minimum wage to 100% of average worker earnings		67% to 100% of average worker earnings	
	2001	2005	2001	2005	2001	2005
No children						
Single person	59	58	46	45	32	33
One-earner married couple	71	77	52	54	32	33
Two-earner married couple (2nd earner)	32	33	32	33	32	33
Two children						
Lone parent	89	89	77	76	65	64
One-earner married couple	89	89	78	78	66	68
Two-earner married couple (2nd earner)	32	33	32	33	32	33

StatLink http://dx.doi.org/10.1787/141678245847

1. Calculations based on the OECD Tax-Benefits Models by varying the earnings levels assuming full-time work. In the case of a married couple it is assumed that the second earner varies his/her earnings level while the principal earner makes 67% of average worker earnings. Social assistance and any other means-tested benefits are assumed to be available subject to relevant income conditions. Neither childcare benefits nor childcare costs are considered in these calculations.

Source: OECD Tax-Benefit Models. This table was first included in OECD (2007), *OECD Economic Surveys: United Kingdom*, No. 17, OECD, Paris.

from a full-time job paying the minimum wage to a higher paid job – *i.e.* the person keeps little more than 10% of their increase in earnings. This is the extreme, though METRs are also above 60% for such households right the way up to average earnings. It should be emphasised that this is not entirely due to the operation of the tax credits; rather, it is the interaction of a number of benefits together with the tax system.

Switzerland is another country which has now decided to use in-work payments to encourage work activity. However, it has done so as part of a restructuring of its social assistance system. The Swiss system is highly decentralised, so to talk of "the Swiss system" is somewhat misleading, as Cantons do differ markedly in how they structure their systems. However, the *Conférence suisse des institutions d'action sociale* (CSIAS) provides guidelines and directives for Cantons to consider. Faced with the rapid increase in the number of social assistance cases, the CSIAS revised its guidelines to increase the incentives in favour of work and society more general.

This has been done by allowing social assistance recipients to keep their benefit even if they have small amounts of income from work. Furthermore, there is an 'integration supplement' for people who are making an effort to integrate themselves into a particular profession or even in some cases into society in general. Nevertheless, net replacement rates for social assistance recipients who are single, lone parent or live with an inactive partner fell by considerable amounts between 2001 and 2005 while average effective tax rates did barely change except for persons living with children in the lower earnings range.

c) The restructuring of the unemployment benefit systems in the Czech Republic, Finland, Hungary, Italy and Portugal

Although not reflected in the figures for 2005, ***Hungary*** introduced a new social allowance system in 2006 which will increase incentives for those on benefit to seek work. Benefit recipients are allowed to take temporary jobs without losing entitlement to benefits. Furthermore, the unemployment benefit system is split into two. The job-search benefit (available to those employed for at least one of the previous four years) will be paid for the period of one day for every five that they have worked, giving a maximum benefit duration of 270 days. The rate of payment is 60% of previous earnings, up to a maximum of 120% of the minimum wage, for the first 90 days, and then 60% of the minimum wage for the rest of the entitlement to unemployment benefits. For those who do not qualify for the job-search benefit, a job-search allowance is in place, paid at just 40% of the minimum wage. The effect of these changes will be a sharp decrease in the net replacement rate. In addition, employers of various groups at the margins of the labour force will receive reductions in the social security entitlements that they are required to pay.

Some of these changes are echoed in the reform of the ***Portuguese*** benefit system which has recently been proposed. As in Hungary, the duration of unemployment benefit will be closely related to the contributions. To be entitled to any benefit, people will have to have worked 450 days in the previous two years. Unemployed people aged under 30 will be entitled to nine months benefit, rising to 360 days if they have worked for more than two years in total, rising by 30 days for each additional five years worked. Those aged over 45 who have worked less than six years will get two years of benefit, or 900 days if they have worked more than six years, again increasing by 30 days for each five-year period of contributions. The benefit will be 65% of previous earnings, with a new restriction that the benefit must be less than the *net* wage of the worker before unemployment.

Whereas in Hungary and Portugal the objective of the reform on unemployment benefits has been restricting benefit payments, ***Italy*** has sought to expand its system. Since 2005, unemployment benefits for workers aged under 50 years have been raised from 40% to 50% of reference salary for the first six months and are 40% during the seventh month. Benefits are 50% of reference wage (previously 40%) for the first six months, 40% for the following three months and 30% during the tenth month for workers aged 50 or more. Consequently, net replacement rates increased for unemployment benefit recipients with previous average and below average earnings, for 5 to 14 percentage points. Average effective tax rates increased throughout the earnings range but particularly for lower earnings. Furthermore, the Italian tax system has been simplified and marginal tax rates reduced.

In the ***Czech Republic,*** too, there has been an increase in unemployment benefits for some groups. Since 2004, unemployed people are allowed to earn up to half of the minimum wage without losing entitlement to benefit. Though average effective tax rates for short-term unemployed persons are somewhat lower in 2005, levels still approach and indeed exceed 100% in the case of taking up less than half-time work. The duration of unemployment benefit has been increased from six months to nine months for those aged over than 50, and to 12 months for those aged over 55. For the first three months, benefits are paid at 50% of previous (net) earnings, but whereas in the past the benefit would then be 40%, this is now paid at a rate of 50%. More recently there has been a reduction in income taxes for low wage workers, and the introduction of non-wastable tax credits for families with children.

The reform also introduces joint taxation of married couples. This is a move in the opposite direction to that of most other OECD countries, which have moved from joint towards individual taxation. Joint taxation raises marginal and average tax rates for the secondary earner in a married couple and may have an adverse effect on labour market participation.

In ***Finland***, too, there have been changes which increased the earnings-related component of unemployment benefits in various ways in 2003 and 2005. However, this was in the context of a reform to the severance pay system. Now there is a severance pay increment payable for 150 days for people made redundant and who have worked for more than 20 years. From 2005 an employment programme supplement to the basic allowance and to the earnings-related unemployment allowance has been introduced. People who have agreed an employment programme at the local employment office and who have worked for at least three years can get up to 185 days of supplement.

d) The restructuring of the child benefit systems in Austria and New Zealand

In 2004, ***Austria*** increased the childcare allowance by 50% for the second and each additional birth. At the same time, the tax system has been reformed, with a reduction in the number of tax brackets and an extension in the number of people who are exempt from tax. One possible unintended side effect of this extension of the childcare allowance

Box 5.1. **The Working for Families package in New Zealand**

Working for Families package

The central objective of the *Working for Families* package announced on 27 May 2004 is to reduce child poverty by targeting assistance to low- and middle-income families. The reforms will be fully implemented by 1 April 2007, in the following sequence:

October 2004

- For beneficiaries, abatement of the accommodation supplement during the first NZD 80 of gross weekly earnings eliminated, and, for non-beneficiary families, the thresholds for abatement of the accommodation supplement were raised.
- Childcare and out-of-school care (OSCAR) hourly subsidy rates were increased.

April 2005

- The maximum rates of the accommodation supplement were raised for some locations.
- Family Support rates were increased and the child component of core benefits was eliminated.

October 2005

- The Childcare and OSCAR subsidy rates further increased.

April 2006

- The NZD 15 per week Child Tax Credit replaced by an in-work payment of NZD 60 per week available to families not on benefits and working at least 30 hours per week for a couple or 20 hours per week for a sole parent.
- The thresholds for abatement of family assistance raised and the Family Tax Credit increased to provide a guaranteed minimum family net income of NZD 17 000.

April 2007

Family Support rates increased by NZD 10 per child per week.

Source: Based on the *OECD Economic Survey of New Zealand* (2007).

reform is that there is now a "jump" in the average tax rate at around EUR 1 000 per month. This means that marginal effective tax rates can be quite high. Between 2001 and 2005, average effective tax rates for unemployed lone parents and one-earner couples with children increased by 14 percentage points when moving into 1/3-time work and by 21 to 23 percentage points when moving into 1/2-time work.

New Zealand announced the *Working for Families* package in 2004. This contained a series of changes which were introduced gradually by 2007. The package provides significantly larger income transfers for families with children, mainly by increasing child benefits and childcare allowances. In order to offset the potentially negative effects of such changes on work incentives, a number of other measures were taken to increase in-work incomes as well. More details are provided in Box 5.1.

Some of these changes do not show in Table 5.2, coming into effect after 30 June 2005. However, the broad effect of the total package can already be seen. Single income households will see an increase in income, but METRs will be high. There is also little financial gain to sole parents from moving completely off the relevant benefit.

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List of Acronyms

AETR	Average Effective Tax Rate
AFEAMA	Aide à la famille pour l'emploi d'une assistante maternelle agréée (France)
AGED	Allocation de garde d'enfant à domicile (France)
APE	Allocation parentale d'éducation (France)
API	Allocation de parent isolé (France)
APW	Average Production Worker
BTWA	Back-to-Work Allowance (Ireland)
CCDP	Continued Child Dependent Payment (Ireland)
CIG	Cassa Integrazione Generale (Italy)
DBP	Domestic Purposes Benefit (New Zealand)
FB	Family Benefit
FIS	Family Income Supplement (Ireland)
FTB	Family Tax Benefit (Australia)
FTC	Family Tax Credit
GROSS	Gross Earnings
GRR	Gross Replacement Rate
HB	Housing Benefit
IT	Income Tax
IW	In-work (Employment-conditional) Benefit
METR	Marginal Effective Tax Rate
NCB	National Child Benefit (Canada)
NET	Net Incomes
NRR	Net Replacement Rate
OCCS	Ontario Child Care Supplement (Canada)
OSCAR	Out-of-School Care and Recreation (New Zealand)
OW	Out-of-work
PAJE	Prestation d'accueil pour jeune enfant (France)
PPE	Prime pour l'emploi (France)
PTJI	Part-time Job Incentive (Ireland)
SA	Social Assistance
SSC	Social Security Contributions
SSCer	Social Security Contributions Paid by Employers
STATA®	Statistical Software for Professionals (United States)
UA	Unemployment Assistance
UI	Unemployment Insurance
WTC	Working Tax Credit (United Kingdom)
WSG	Work Start Grant (New Zealand)

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ANNEX A

Methodology

Introduction

Various assumptions have been made in calculating gross and net in-work and out-of-work incomes on a comparable basis across countries. The first section of this annex explains the reference periods used in the calculations and for expressing results. Section 2 outlines the assumptions made in calculating benefit amounts. Section 3 looks at the tax treatment of benefit income and earnings, and Section 4 introduces the income concept of the average worker (AW) earnings on which calculations are based. The latter two sections are kept relatively brief since a more detailed discussion can be found in *Taxing Wages 2005-2006* (OECD, 2007). Section 5 outlines the treatment of regional differences in tax and benefit systems. Section 6 discusses how the various work incentive indicators used in this publication relate to each other. Section 7 describes the types of family situation considered in this publication.

1. Income definition and time-period issues

Only cash incomes are considered. Net incomes are gross earnings (see Section 2) plus cash benefits (Section 3) minus income taxes and own social security contributions (Section 4). Any taxes or contributions not paid directly by the wage earner or benefit recipient are not included in gross incomes (and not deducted to arrive at net incomes). Thus, cross-country comparisons do not capture differences in social security contributions paid by employers or benefit agencies except to the extent that they influence the AW average earnings measures (Section 6 below takes a closer look at the role employer contributions play in net replacement rate calculations). Housing costs, childcare costs and any other forms of "committed expenditure" are not deducted when computing net incomes.

All income measures relate to the current period and therefore do not take into account any longer-term effects of today's labour market status on future earnings, pension entitlements, (re-)qualification for unemployment insurance benefits, etc. To the extent that individuals are aware of these future income implications and take them into account when considering their labour market status, it would clearly be desirable to allow for them when considering work incentives. Yet, this is beyond the scope of the static modelling framework. For low-income groups who frequently face liquidity constraints, current incomes may, in any case, often be the more immediate concern.

All tax and benefit amounts shown in this publication are computed using the rules and regulation that were in force on 1 July of the relevant year (2005). Unless otherwise noted, the same day is used as reference for the description of tax-benefit instruments in

Chapter 1 as well as the individual country chapters (available on the Internet at *www.oecd.org/els/social/workincentives*).

Throughout this publication (and also in the summary tables at the end of the country chapters), taxes, benefits and net income values are determined for a particular month (*e.g.* the first month of unemployment benefit receipt) but shown on an *annualised* basis (*i.e.* multiplied by 12) unless otherwise noted. This approach has two implications. First, the annualised amounts of certain benefit values may exceed allowable annual maxima (*e.g.* unemployment benefits that are available for less than 12 months). Second, income taxes, which depend on annual incomes, are determined in relation to the *annualised* amounts (*i.e.* the values for the particular month of interest multiplied by 12). Assuming unchanged income during the entire year has the advantage of being straightforward and informative in a situation where benefits can be received for at least 12 months. In cases where benefits are taxable *and* durations are shorter than 12 months, it is necessary to make an assumption about income earned in the remaining months. Taxing annualised values is, in this case, seen to be most consistent with the aim of determining taxes and benefits for a particular month. In addition, it is likely to be a reasonably good approximation of how authorities determine income tax pre-payments that are deducted at source in the month when income is earned. In effect, taxing annualised monthly values is equivalent to dividing all annual income tax parameters by twelve and taxing monthly incomes.

Since the aim of the model calculations is to provide an illustration of the tax-benefit rules *in a given year*, any time-lags delaying (*e.g.* for administrative reasons) the assessment of claimants' entitlement or the payment of benefits are disregarded. All differences in the timing of benefits (*e.g.* whether they are paid in arrears or in advance) are ignored as well. For instance, where social assistance benefits payable in the current year depend on previous year's net income, they are, instead, computed based on the family's current income situation. Thus income instantaneously affects benefits, rather than affecting them after some period of time. Unemployment benefits often depend on previous gross earnings. In the model calculations, these benefits are computed in relation to a specific percentage of AW earnings using the AW value for the current (rather than the previous) year. Where previous net earnings are the basis for benefit entitlements, relevant taxes are computed using the current year's tax rules.

2. Assumptions about earnings

Gross earnings in-work are expressed as a percentage of earnings of the average worker (AW). There has been a major change in the definition from the benchmark of the average production worker (APW) to average worker (AW) since the last editions of *Benefits and Wages* (see Box A.1). Details of how the AW earnings are calculated in each country can be found in *Taxing Wages* (OECD, 2007). The broad guidelines are as follows:

- Earnings are calculated for industry sectors C to K of the International Standard Classification of all Economic Activities (ISIC Rev.3.1, United Nations, New York, 1989).
- Data relate to the average earnings for the country as a whole.
- The worker is an adult (male or female) worker in the covered industry sectors, including both manual and non-manual workers. Some countries are not able to provide averages that include supervisory and/or management employees.
- The worker is assumed to be fully employed during the year, although several countries are unable to separate and exclude part-time workers from the earnings figures (in most of these cases, full-time equivalent wages are reported).

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- Annual earnings are calculated by referring to the average of hourly earnings in each week, month or quarter, weighted by the hours worked during each period, and multiplied by the average number of hours worked during the year, assuming that the worker is neither unemployed nor sick and including periods of paid vacation. A similar procedure is used to calculate overtime earnings.
- Earnings are assumed to include average amounts of overtime and regular cash supplements (Christmas bonuses, thirteenth month payments, vacation month payments). Regular annual bonuses are included where they do not take the form of dividend payments. Fringe benefits are excluded.

Three countries (Ireland, Korea and Turkey) are not yet able to move to the broadened AW definition. The average wage figures reported for these countries therefore still refer to manual workers in manufacturing (industry sector D). AW levels for 2005 are shown in Table A.1 Statutory Minimum wages are shown for those countries where they exist and information is available.

Table A.1. **AW earnings and statutory minimum wage**[1]

In national currency[2]

	2005		
	AW	Minimum wage	Minimum wage in % of AW
Australia	51 169	24 378	48
Austria	35 128	0	–
Belgium	36 468	14 640	40
Canada	39 816	15 184	38
Czech Republic	220 461	89 648	41
Denmark	320 300	0	–
Finland	32 671	0	–
France	30 509	14 232	47
Germany	41 691	0	–
Greece	20 521	8 100	39
Hungary	1 818 360	684 000	38
Iceland	2 958 000	0	–
Ireland[3]	28 994	15 454	53
Italy	22 662	0	–
Japan	4 964 206	1 383 200	28
Korea[3]	28 840 608	7 105 440	25
Luxembourg	42 135	17 712	42
Netherlands	38 671	16 418	42
New Zealand	40 782	19 760	48
Norway	378 782	0	–
Poland	28 563	10 188	36
Portugal	13 397	5 246	39
Slovak Republic	216 179	79 040	37
Spain	20 439	7 140	35
Sweden	316 602	0	–
Switzerland	71 638	0	–
Turkey[3]	15 737	4 235	27
United Kingdom	29 364	10 296	35
United States	31 096	10 712	34

StatLink http://dx.doi.org/10.1787/141816776581

1. All amounts are shown on a full-time basis (assuming 40 weekly working hours in countries where hourly minimum wages apply).
2. Euro for euro area countries.
3. AW value is not available. Figures refer to APW.

Source: OECD Tax-Benefit Models and Minimum Wage database (2005).

Box A.1. **The impact of the change in earnings definition from APW to AW**

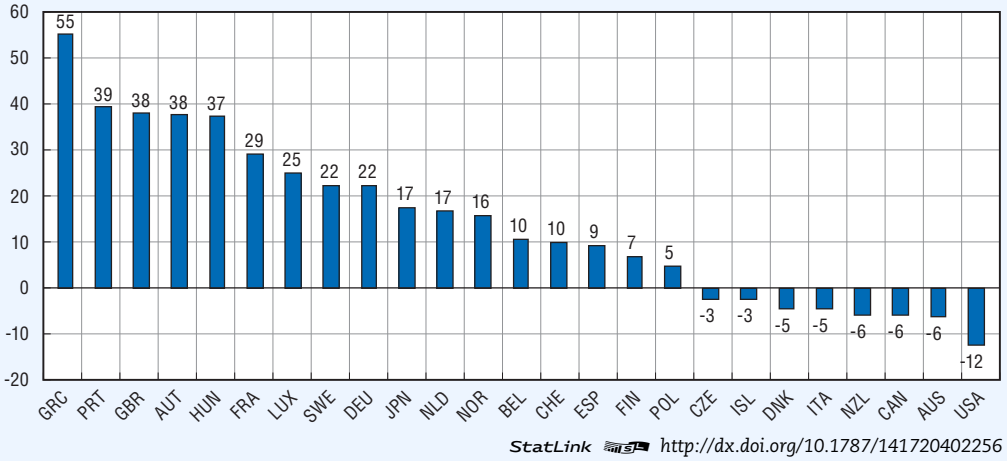
This edition – in line with the most recent editions of the OECD publications *Taxing Wages* (2007) and *Pensions at a Glance* (2007) – uses a new and more comprehensive measure of earnings corresponding to an "average worker" (AW) which broadens the previous benchmark of the "average manual production worker" (APW) in two important ways: *i*) it extends the coverage from industry sector D to industry sectors C to K (see Table A.1); *ii*) it includes both manual and non-manual workers.

Although implying a break in the time series for the base earnings measure and the corresponding indicators and results, the broadening of the OECD "average worker" concept is considered desirable and a major step towards increased cross-country comparability since average earnings of manual workers employed in the manufacturing sector has become increasingly less representative or "typical" over time.

While the coverage and thus representativeness has thus been extended, the concept and definition of earnings as described above remains the same. The earnings measure is gross wage earnings paid to average workers, measured before deductions of any kind (*e.g.* withholding tax, income tax, private or social security contributions and union dues).

The effect of moving to the new broader definition varies considerably amongst member countries. In a majority of countries, AW levels are higher than the average earnings levels under the previous APW definition (Figure A.1). In particular, the move to the new definition has implied a considerable increase of 37 or more per cent in gross wage earnings of the average worker for six countries (Austria, Greece, Hungary, Portugal and the United Kingdom). For four additional countries the increase in the gross wage earning was between 22 and 29% (France, Germany, Luxembourg and Sweden). For ten countries, the increase is between 5 and 17%. In contrast, this move has implied a sizeable decrease of 12% only in the United States and a more modest decrease in seven additional countries.

Figure A.1. **Percentage difference of average earnings AW levels with regard to previous APW levels, 2005**



StatLink http://dx.doi.org/10.1787/141720402256

Source: OECD (2007), *Taxing Wages* 2005-2006, OECD, Paris.

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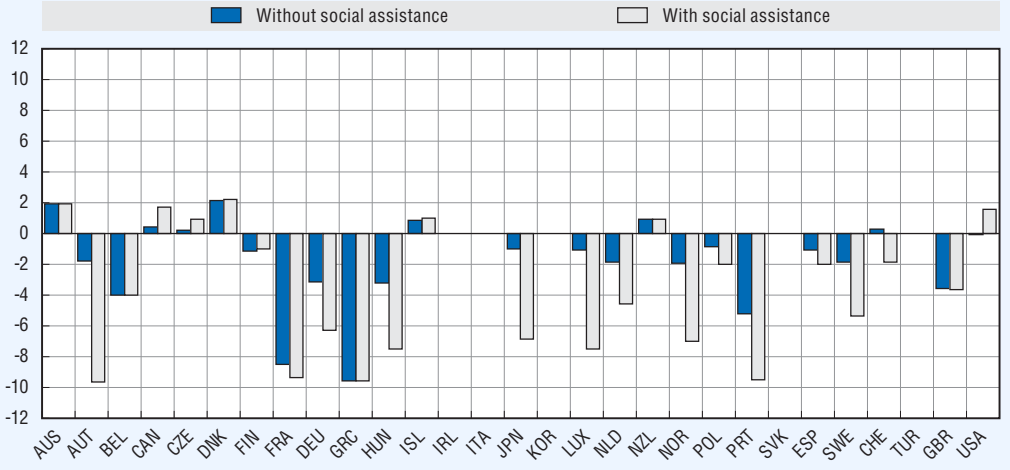
Box A.1. **The impact of the change in earnings definition from APW to AW** *(cont.)*

For some countries, these are considerable differences. The earnings level based on the new definition may differ from that of an average production worker for three reasons: *i)* due to the broadening of the industry coverage from only manufacturing (ISIC D) to industries under ISIC Categories C to K inclusive; *ii)* due to the inclusion of non-manual workers; *iii)* due to use of a new data source. Unfortunately, the national data at hand do not allow to disentangle these three effects for a greater number of countries. However, OECD (2005a) suggests that the impact of the broadening of the industry coverage from D to C-K is *smaller* than the overall change, implying that the other two factors are the main drivers. At the same time, trend estimates seem to be affected much less by the move to the new definition (OECD, 2005b).

The move to the new AW concept also impacts on the indicators reported and discussed in this study such as net replacement rates and effective tax rates. For instance, in the case of flat-rate elements of social benefits, net replacement rates will *ceteris paribus* be lower when average earnings levels are higher. Indeed, Figure A.2 shows that the synthetic NRR measure discussed in Chapter 3 (Figure 3.3) is in general lower using the new definition where AW average earnings are higher than APW earnings, *i.e.* in the majority of countries. The difference is more pronounced when considering NRRs for persons and families entitled to social assistance. In some countries, the use of the new definition decreases the synthetic NRR measure by almost 10 percentage points (Austria, France, Greece and Portugal).

Figure A.2. **Difference in synthetic NRR measure[1] when moving from APW to AW earnings basis, percentage points, 2005**



StatLink http://dx.doi.org/10.1787/141747462006

1. Unweighted average of net replacement rates over a period of 60 months, for four family types and two-earnings levels (see Table 3.2 in Chapter 3).

Source: OECD (2007a) and OECD Tax-Benefit Models.

Average effective tax rates tend to be lower using the new AW definition in a number of countries, too (Table A.2). This concerns in particular France, Hungary, Portugal and Sweden and differences are in general larger for AETRs for persons entering lower-wage employment. In some cases (Austria, lone parents in Luxembourg) the new AW definition can also lead to higher AETRs. These patterns need to be taken into account when comparing indicators based on the new AW earnings definition with results from previous publications.

Table A.2. **Difference in AETR indicators when moving from APW to AW earnings basis, percentage points, 2005**[1]

	0 >> ⅓						0 >> ½						0 >> ⅔						0 >> full-time					
	No children			Two children			No children			Two children			No children			Two children			No children			Two children		
	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple	Single person	One-earner married couple	Two-earner married couple	Lone parent	One-earner married couple	Two-earner married couple
Australia	–1	–2	0	–2	0	–1	2	1	–1	–1	–2	0	2	1	0	–1	1	1	1	1	0	0	1	0
Austria	13	13	14	6	6	20	8	26	10	17	19	9	5	3	8	2	1	10	2	2	3	1	0	2
Belgium	1	1	1	2	1	1	–3	–3	–1	–2	–3	–1	–3	–3	–2	–2	–3	–2	–2	–1	–1	–2	–1	–1
Canada	–2	–2	–2	–3	–2	–1	–1	–1	–1	–2	–2	0	3	3	4	2	2	4	2	2	2	1	1	3
Czech Republic	–1	0	0	0	0	–2	0	0	0	0	0	–1	0	0	0	–1	–1	0	0	0	0	0	–1	0
Denmark	2	2	2	3	3	2	2	2	2	2	2	2	1	2	2	2	2	2	1	1	1	1	2	2
Finland	0	6	0	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	–1	–1	–1	–1	–1	–1
France	–12	–10	–10	–25	–25	–11	–3	0	–2	–11	–10	–1	–6	–4	–5	–12	–12	–4	–3	–2	–3	–7	–8	–2
Germany	5	5	12	–2	4	11	1	–4	1	2	–6	1	1	–1	1	–3	0	1	1	2	2	–1	–1	2
Greece	12	12	0	16	16	0	–9	–9	0	–12	–12	0	–22	–22	–15	–25	–25	–15	–8	–8	–3	–12	–12	–5
Hungary	–24	–30	–30	–30	–30	–25	–16	–12	–16	–6	–20	–12	–10	–8	–10	–3	–3	–4	0	0	0	–1	–1	6
Iceland	1	1	1	1	1	1	1	2	1	1	2	1	1	0	1	1	0	1	1	0	1	0	0	1
Ireland[2]	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Italy	1	4	2	2	2	5	0	1	0	1	1	1	0	1	0	–1	–1	2	0	1	0	–2	0	1
Japan	1	0	1	0	0	1	0	1	0	1	0	0	–5	–5	–6	–5	–5	–2	–3	–3	–3	–3	–3	–4
Korea[2]	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Luxembourg	9	9	8	20	8	8	6	6	5	13	6	5	4	4	4	10	4	4	1	1	1	5	1	1
Netherlands	1	–4	2	–1	–1	2	0	–3	1	–2	–2	1	–6	–11	–6	–10	–12	–6	1	–1	1	–2	–2	1
New Zealand	–1	–1	12	–2	–1	10	1	–1	8	–2	–2	9	1	–3	6	–8	–5	8	1	0	3	–1	–1	5
Norway	–2	–2	–2	–1	–2	–2	–2	–2	–2	–1	–2	–2	–2	–2	–2	–3	–2	–2	–2	–2	–2	–5	–2	–2
Poland	3	2	2	2	2	2	–2	–2	–2	–2	–2	–2	–1	–1	–1	–3	–1	–1	–1	–1	–1	–2	–1	–1
Portugal	0	0	3	–28	–28	1	2	0	3	–19	–19	5	3	3	3	–11	–11	7	5	2	5	–3	–6	7
Slovak Republic[3]	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Spain	–4	–4	–4	0	0	1	–4	–4	–4	1	0	1	–4	–4	–4	1	0	1	–4	–4	–4	1	1	0
Sweden	–9	–9	–9	–6	–3	–9	–9	–9	–9	–6	–5	–9	–9	–9	–9	–6	–6	–9	–9	–9	–9	–8	–7	–9
Switzerland	1	–2	1	0	–2	1	1	3	1	0	–1	0	0	–1	1	5	–1	0	0	–1	1	3	4	0
Turkey	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	–1	3	–4	6	7	–17	–1	2	–3	9	10	–24	–2	–2	–2	6	7	–18	–1	–1	–1	0	0	–12
United States	0	0	0	–7	–7	0	0	0	0	–4	–4	0	0	0	0	–7	–6	–1	0	0	0	–3	–3	2

StatLink http://dx.doi.org/10.1787/141830626457

1. AETR (average effective tax rate) for short-term unemployed persons re-entering employment. Further definitions: see note to Table 3.5.
2. AW value is not available.
3. APW value is not available.

Source: OECD Tax-Benefit Models.

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3. Benefit assumptions

a) Benefits included

Benefits included in the calculations exclude benefits "in kind". Hence free school meals, subsidised transport, free health care, etc. are not included. Occasional, irregular or seasonal payments (*e.g.* for Christmas or cold weather) are not included. Also excluded are benefits strictly related to the purchase of particular goods and services (other than housing or childcare as described below), reduced price transport or purchase of domestic fuel or the purchase of medical insurance and prescriptions. An exception is made for food stamps in the United States, as these are considered to correspond closely to social assistance cash benefits paid in other countries.

Cash benefits considered include unemployment insurance, unemployment assistance, social assistance, family benefits and lone-parent benefits, housing benefits, child-raising allowance paid to parents assuming childcare responsibilities for their own children and employment-conditional (or "in-work") benefits. Benefits which are therefore excluded are, amongst others, old-age cash benefits, early retirement benefits, childcare benefits for parents with children in externally provided childcare, sickness, invalidity and occupational injury benefits and benefits relating to active labour market policies. Also excluded are payments made to those unemployed as a result of collective dismissal, such as the *Cassa Integrazione Generale* (CIG) and mobility benefits in Italy. Severance pay, even where legally required of employers, is not included.

b) Unemployment insurance

Unemployment insurance entitlement can be considered in three parts: the conditions for being entitled to benefit; the amount of benefit to which a person is entitled; and the length of benefit duration.

The standard assumption is that the benefit recipient is 40 years old and has been continuously full-time employed and contributing to the unemployment insurance fund since the age of 18. This means that in most countries the individual has a full contributions record in the period before unemployment; that where insurance is voluntary (as in some Nordic countries), the individual considered has contributed to the fund; and that the individual falls into the "standard" unemployment insurance system (older workers are often eligible for a longer duration of benefit receipt). The assumption means that in virtually every case the individual is entitled to unemployment insurance, where such insurance exists.

The amount of insurance benefit is often based on previous earnings. The level of previous earnings is defined with reference to the AW level of earnings in the current year. It is assumed that the stated proportion of this level of earnings has been earned over whatever period upon which assessment for benefit is calculated. Where minimum or maximum levels of benefit are included in benefit regulations, these are applied. The individual is generally assumed to be fully unemployed but special rules for part-time work during unemployment are applied if relevant to the calculations.* If supplements are paid reflecting the family situation of the unemployed person (*e.g.* for dependent spouses or

* Some of the "budget constraint" graphs (described in Chapter 2 and available on the Internet at *www.oecd.org/els/social/workincentives*) show the income consequences of part-time work for a recipient of unemployment benefits.

children), these are included. Benefits are sometimes reduced after a period of receipt. The reductions may be related to age and/or contributions record. Such reductions are applied as appropriate, using the assumptions about age and contributions record given in the previous paragraph.

For the calculations of replacement rates over a five-year period, the individual is assumed to receive the benefit for the length to which he or she is legally entitled. This implies that the individual satisfies whatever requirements for actively seeking work are imposed throughout the period of legal entitlement. In some countries there is a right to enter an active labour market programme (training, subsidised employment, etc.) after a certain period of unemployment. The individual is assumed not to participate in such schemes. Hence, even where participation in such schemes can requalify an individual for an insurance benefit and benefit receipt is in effect indefinite, the individual is assumed to exhaust benefit according to the *de jure* rather than the *de facto* duration of benefit receipt. Special rules for temporary layoffs are not included.

c) Unemployment-related means-tested benefits

This section considers the assumptions made where cash benefits are means-tested, particularly for unemployment assistance and social assistance.

Means-tested benefits are usually paid only when the assets of a family are less than a certain level, and are reduced as the income of the individual or family increases. The exact details of how these two features apply in each country vary greatly. Furthermore, social assistance benefits are often discretionary and the level is decided locally. Hence, eligibility assumptions can have a great effect on the benefit income which those out of work are indicated as receiving. The general assumptions applied are the following:

- Entitlement to means-tested unemployment assistance and labour market support programmes may depend on age and employment and/or contributions record. Where this is the case, the assumptions outlined in the section on unemployment insurance are applied. Similarly, job-search activity and duration of benefit are as described in that section.
- Social assistance may only be paid where all other sources of support have been exhausted. In certain cases this means the extended family has a legal duty to support those without resources. It is assumed that no such support is forthcoming.
- The assets of a family must often be below some level for there to be entitlement to benefit. The assets ceiling may be relatively high (several hundred thousand dollars, excluding the value of housing in Australia) or very low (often requiring sale of housing and even of cars). For calculations where social assistance amounts are explicitly included (see notes to the tables and figures), it is everywhere assumed that the family possesses negligible assets, and qualifies for the benefit subject to relevant income and other eligibility conditions.
- Benefits are reduced as family or individual income increases. Hence families with other sources of income (capital, alimony) may get reduced means-tested benefits. It is everywhere assumed that the family has no sources of income other than from benefits and/or employment.
- Social assistance in some countries may impose conditions on the behaviour of spouses. For example, in Sweden it is necessary for both spouses to be searching for work for entitlement conditions for social assistance to be satisfied. In Australia, each spouse has

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an individual entitlement to benefit, with individual activity requirements required. In these cases, it is assumed that both spouses are fulfilling all requirements for full social assistance benefits to be received.

- Social assistance often varies according to local guidelines, the individual needs of families, and discretion given to benefit officers. Where benefit amounts have been set in national regulations, these have been used. Even where there is local discretion, there are often national guidelines. These guidelines have been used where available. In other cases, "typical" rates for each family type have been used. The full listing of social assistance amounts, and whether they are based on national rates, national guidelines or typical regional rates, are given in Table 1.3 of Chapter 1.
- Social assistance may be used to "top up" other income sources, including earnings and insurance benefits, where these are below the level of social assistance. For countries where relevant information has been received, this has been indicated in Table 1.3 of Chapter 1.
- In some countries the means-test is reduced in amount or removed altogether for payments made to beneficiaries participating in active labour market policies. Such schemes are not considered.

d) Housing benefits

Housing benefits are included where they consist of a cash benefit paid to individuals with low incomes or who are unemployed and who are living in private rented accommodation. Housing benefit may consist of a general means-tested benefit which supplements other benefits, or it may consist of special rules concerning the treatment of housing costs in the calculation of social assistance levels, or there may be the two types of system running in parallel. In the United Kingdom, Council Tax Benefit (available in Great Britain only) is excluded (as is Council Tax).

Subsidies for the construction of housing, purchases of owner-occupied housing, subsidies for the interest payments on owner-occupied housing, and other similar payments are not included. Similarly, the assumption of living in private rental accommodation means the benefits in kind provided by social housing, usually involving rents below the market rate, are not taken into account in the comparative tables.

Housing benefits are often very complex. A very simple assumption has been applied in this study, which has to be taken into account when interpreting the results. It is that housing costs consist entirely of rent, and the level of rent for all family types regardless of income level and income source is 20% of the gross earnings of an average worker. Where size is relevant, it is assumed to be 70 square meters. (Country specific assumptions, where required, are indicated in the country chapters available on the Internet.)

This implies:

- Single persons are assumed to pay the same rent as a couple with two children.
- Special rules (*e.g.* social assistance for non-rent-related housing costs, such as water and electricity) are not explicitly covered.
- A household living on social assistance is assumed to be paying the same rent as a similar household with average or above-average earnings.

- A household does not adjust its housing consumption according to income level, an assumption which is valid for the short-term unemployed, but less so for those households which have been without work for an extended period.

The 20% of AW used approximates the average level of housing consumption across the OECD. In some countries, however, housing costs can differ from this level, sometimes by substantial amounts. Furthermore, actual households without work will presumably on average spend less than this amount (reflecting their recognition of lower long-term consumption possibilities than more employable households, and also the effects of regional concentrations of unemployment on housing costs), and households with work will (again, on average) spend more. The housing cost assumption may not therefore reflect the typical housing costs of those living on benefit income in each country. It is justified on the grounds that, first, no practical alternatives are obviously preferable, and second, that it is transparent and easily understood. Any assumption other than fixed housing costs for those in-work and out-of-work would make interpretation of replacement rates difficult.

Where housing benefits vary by area, a typical rate has been chosen. Assumptions concerning means-testing are as in sub-section *c* above.

e) Family benefits

Family benefits may be unrelated to the incomes of the family or means-tested. Where they are means-tested, the assumptions given in the previous section are applied. Benefit amounts are often related to the age of the child; the tables in Chapters 2 and 3 and the country tables available on the Internet are based on the assumption of two children aged four and six. Where different assumptions have been made, the number of children and the amounts relevant for the ages are given in the footnotes to the tables.

f) Childcare benefits

All results assume that no childcare services are used and families are therefore not entitled to any benefits or tax reductions that depend on certain levels of childcare expenditures or on utilising certain types of childcare services. However, any benefits or tax reductions that are not subject to these conditions are assumed to be available as long as other relevant criteria are met (*e.g.* children's ages, family income). Childcare benefits paid to parents looking after their children at home (child-raising allowances) are also available subject to relevant conditions (*e.g.* number of working hours).

g) Lone-parent benefits

It is assumed that lone parents do not receive any alimony. Where receipt of benefit depends in part on co-operation with official attempts to identify the absent parent, it is assumed that such co-operation has been forthcoming. No other special transfers (*e.g.* widow's pensions) are assumed to be received, except for the benefits considered in this publication. Any means-tests are applied following the guidelines in sub-section *c* above.

h) Employment-conditional benefits

Employment-conditional (or in-work) benefits may be paid via either the tax administrative system (as in New Zealand, the United Kingdom and the United States) or that of the benefit system (as in Ireland). Both types of payment are considered benefits for the purpose of this report. Such benefits are paid only to those with earnings or those who

have worked more than a certain number of hours per week. They do not therefore affect incomes of those families out of work. They do affect the incomes of those working part-time, however, and the assumptions about hours worked and incomes earned determine the level of employment-conditional benefits. Delays in payment of benefit (which are often long – most recipients in the United States receive the payment in arrears at year-end) are ignored, with benefit income being calculated as it accrues. Means-testing provisions have been applied following the principles given in sub-section *c*. Some in-work benefits are only available following a recent transition into employment. Where this is the case, these conditions are taken into account in calculating net incomes so that benefits are only available if a transition into employment is assumed to have taken place.

4. Assumptions about taxation

This section gives a brief discussion of the assumptions used in calculating the tax due on earnings and benefits. The calculations of tax payments are based on the models used for *Taxing Wages* (OECD, 2005). These have been modified or extended where different or additional tax rules apply to the unemployed, to benefit recipients or to people earning income below 67% of AW.

Only personal income tax and employees' social security contributions payable in respect of earnings and benefits are included. Social security contributions made to the private sector are excluded, except when required by law (as in Finland or Iceland). Central, state and local government income taxes are included. Council tax in the United Kingdom is excluded.

Only standard tax reliefs are included when calculating tax payments. These are reliefs unrelated to actual expenditures incurred by the taxpayer and are automatically available to taxpayers who satisfy the eligibility rules specified in legislation. Typical standard reliefs include the basic reliefs available to all taxpayers, or wage earners, or benefit recipients, irrespective of family status; standard reliefs available to taxpayers depending on their marital status; standard reliefs granted to families with children (where relevant); and the standard relief relating to work-related expenses.

Non-standard reliefs are not included. Non-standard reliefs include those relating to costs of owner-occupied housing, relief for interest on qualifying loans, insurance premiums, contributions to savings' or pension plans, purchase of medical insurance, and charitable donations. An exclusion to this rule occurs when non-standard reliefs contain a "minimum benefit" clause, *i.e.* when the benefit is equal to the larger of some fixed amount or actual expenses. In these cases the benefit is taken as the fixed amount.

5. Treatment of regional differences

Several of the assumptions given above refer to how regional differences in tax and benefit systems have been taken into account. The broad principles are as follows:

- Where regional variations consist of deviations from general national guidelines which would otherwise apply, these are not taken into account. Hence, for example, extensions of unemployment benefit duration in high unemployment provinces and states in Canada and the United States are not considered.
- Where regional variations arise as a result of regional or local autonomy in setting regulations, three alternatives could be applied: the average of the different local

regimes, the regime applying in a particular region which can be considered typical, or national "guideline" rules.

Eight countries have regionally varying tax systems (two others – Japan and Norway – have local income taxes which do not, however, vary). In Denmark, Finland, Iceland and Sweden it is possible to calculate a weighted average of the single rate which applies in each area to a tax base which does not differ significantly from that of the central government tax system. This is used in the calculations of in-work and out-of-work net incomes. In Belgium, Canada, Switzerland and the United States calculation of such an average rate is not possible. Typical rates are used instead; the maximum permitted rate for Belgium, and the rates applying in Zurich (Canton and Commune) for Switzerland and the rates applying in the state of Michigan for the United States and the province of Ontario in Canada.

Information making it possible to calculate country-wide average benefit payments is not available to the same degree, and typical cases are more commonly used. Variations in rates are typically found for social assistance and housing benefits. Where typical rates are used for the tax calculations, the benefit system in that region has been followed for consistency. Note that the assumptions about housing costs mean that variations in housing costs across different regions are ignored.

6. Work-incentive indicators

a) Marginal effective tax rate (METR)

An indicator that can be used for measuring the extent to which taxes and benefits reduce the financial gain from work is the marginal effective tax rate (METR). This indicator measures what part of any additional earnings is "taxed away" through the combined effect of increasing tax and decreasing benefit. In other words, the METR measures the effective tax burden to which the additional earnings are subject to. Formally, we have:

$$METR = 1 - \frac{\Delta y_{net}}{\Delta y_{gross}} \qquad [A1a]$$

Where Δy_{gross} are the "additional earnings" referred to above and Δy_{net} is the change in net income obtained after taxes and benefits so that the change in gross earnings between labour market states A and B is:

$$\Delta y_{gross} = y_{grossB} - y_{grossA} \qquad [A1b]$$

and the change in net income is:

$$\Delta y_{net} = y_{netB} - y_{netA} = (y_{grossB} - t_B + b_B) - (y_{grossA} - t_A + b_A) \qquad [A1c]$$

where t denotes total taxes and b denotes total benefits.

The earnings change Δy_{gross} can relate to a large or small change of working hours and/or hourly wages. In Chapter 3 (Section 2), METRs are calculated for a range of working hours transitions for somebody already in employment.

b) Average effective tax rate (AETR)

In addition, this same type of indicator can also be used to analyse the income consequences of transitions between employment and non-employment, in which case the change is equal to total earnings. In order to keep the notation consistent with previous editions of this publication, the METR for a transition into work is called AETR since it relates to a discrete transition between non-employment and employment rather than a

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"marginal" income change. Its definition is equivalent to [A1] with labour market state B being "in work" (IW) and labour market state A being "out of work" (OW):

$$AETR = 1 - \frac{\Delta y_{net}}{\Delta y_{gross}} = 1 - \frac{y_{netIW} - y_{netOW}}{y_{grossIW} - y_{grossOW}} \quad [A2]$$

Other studies have referred to the AETR as "Unemployment Trap" ($METR_{UT}$) indicator for transitions from unemployment to employment and as "Inactivity Trap" ($METR_{IT}$) indicator for a transition into work from inactivity without unemployment benefits (Carone *et al.*, 2004), and also as "Participation Tax Rate" (Immervoll *et al.*, 2004) or "Tax-Benefit to Earnings Ratio" (Immervoll and O'Donoghue, 2003). The AETR should not be confused with the effective tax burden or "tax wedge", which is often shown as a percentage of gross earnings for a particular employee and does not relate to transitions between different work situations.

c) Net replacement rate (NRR)

The other measure used in this publication to analyse the effects of labour market transitions on household incomes is the net replacement rate (NRR), usually defined as the ratio of net income while out of work divided by net income while in work:

$$NRR = \frac{y_{\text{netOW}}}{y_{\text{netIW}}} \quad [A3]$$

The NRR measures the fraction of net income in work that is maintained when becoming unemployed.

d) Relationship between AETR and NRR

Throughout this publication, all incomes y are assessed at the household level with one person changing between status A and B (or OW and IW) while the work status and earnings of all other household members remain unchanged. In the case of computing NRR for a two-earner couple, this means that the earnings of the partner whose earnings remain unchanged will, to a large extent drive the NRR results since these unchanged earnings appear in both the numerator and denominator of [A3]. While the degree of income maintenance as expressed by the NRR is a useful indicator regardless of the number of earners in the household, the AETR is a better indicator of the *influence of the tax-benefit system* on financial work incentives. It relates the change in net household income to the *change* in gross earnings and is therefore not directly affected by the level of any earnings received by other household members.

For an unemployed person who is single or lives in a household where nobody else has any income from work, there is a straightforward relationship between the AETR and the NRR: for those with high NRRs, net incomes during unemployment are not much lower than during employment. When moving back into work, they will thus tend to see only small increases in net income and, hence, have high AETRs as well. This direct link between NRR and AETR is most easily seen in the case of NRR=AETR=1 (in general, NRR≠AETR).

To show the relationship between NRR and AETR formally, one can combine [A3] with [A2] and rearrange to obtain:

$$NRR = 1 - \frac{\Delta y_{gross}(1 - AETR)}{y_{netIW}} \quad [A4]$$

For a transition into work, the numerator of [A4] is the part of in-work earnings that is not "taxed away" (and is thus equal to Δy_{net}).

e) Employers' social security contributions and comparability of indicators across countries

Social security contributions paid by employers (SSC_{er}) can be substantial and the relative importance of taxes and contributions paid by employers and employees differs markedly across countries (see OECD, 2007*a*). Since SSC_{er} are not considered in the calculations presented here, it is therefore useful to consider how they might affect the comparability of results. A first consideration is whether the insurance value or any future benefits bought by social security contributions should be taken into account in the calculations. As explained above, while taking into account future income streams may be desirable, the static modelling employed for the present analysis considers current incomes only. A second, and separate, issue concerns the incidence of social security contributions (see OECD, 1990, Chapter 6). To the extent that SSC_{er} reduce wages, they might usefully be considered a tax on employees. Similarly, any part of employee contributions that is incident on the employer may not be considered as reducing employees' take-home pay. However, any "forward" or "backward" shifting of contribution payments will take place via adjustments to contractual wages. If APW values are measured in an equilibrium situation where these adjustments have taken place, then any wage adjustments will already be reflected in the average wage figures used as the basis for the calculations. Given the concern with current cash incomes (and, in particular, take-home pay in the case of employed persons), it is therefore appropriate to fully deduct employee contributions when computing net incomes. Similarly, any parts of SSC_{er} that may be incident on employees should not be deducted (since these will already be reflected in lower APW values).

The relevant mechanisms can be illustrated as follows. To the extent that contributions are incident on employees, higher employer SSC_{er} will, other things being equal, result in lower contractual wages. What does this mean in terms of the measurement of financial work incentives using the current cash income concept as in this publication? If SSC_{er} are raised from zero to X and a fraction of $0 \leq s \leq 1$ of X is shifted to employees, then average wages w will, by definition, decrease by sX. Once this adjustment process is complete, the NRR for a single person earning the average wage might be b / ((1-t)(w–sX)), where b is the net unemployment benefit, t is the individual's average tax rate while in work and w is the average wage prior to the SSC_{er} increase. This is the same NRR one would obtain if, instead of raising X through employer contributions, employees would pay contributions of X: they would only end up paying sX with the remainder of X shifted to employers. It is clear, therefore, that once any forward or backward shifting of contributions is complete, the current cash income concept results in the same NRR measures regardless of whether contributions are paid by employees or employers. By virtue of [A4], this also holds for the AETR and METR measures. Subject to the assumption that the shifting processes are complete, the work incentive indicators presented in this publication are therefore comparable across countries with different levels of employer and employee contributions. It is nonetheless important to keep in mind that they are based on current income concepts and therefore do not take into account country differences in the rights to future incomes or services bought by social security contributions.

7. Family situations used as the basis for tax-benefit calculations

The use of "typical" households allows many of the determinants of tax and benefit amounts to be held constant while changing one household characteristic (*e.g.* the number of children) at a time. A focus on one aspect at a time helps improve our understanding of existing policy instruments as well as the differences between them across countries and at different points in time. These types of result thus provide a useful complement to population-based approaches such as incidence studies based on micro-data alone or microsimulation models capable of simulating the effects of fiscal and social policy instruments on a sample of actual households.

Computing tax and benefit amounts using existing policy rules illustrates the features of these instruments. And by repeating these calculations for a number of different household situations, they permit an assessment of the circumstances (*e.g.* family situation or income level) for which each of these features becomes relevant.

Taxes, benefits and net incomes are computed for a set of different family types:

1. Single adult without children, (employed/unemployed).
2. Lone parent with two children, (employed/unemployed).
3. One-earner married couple, (first spouse employed/unemployed, second spouse "inactive").
4. One-earner married couple with two children, (first spouse employed/unemployed, second spouse "inactive").
5. Two-earner married couple, (first spouse employed/unemployed, second spouse full-time employed).
6. Two-earner married couple with two children, (first spouse employed/unemployed, second spouse full-time employed).

The standard assumption is that adults are 40 years old and children are aged four and six. The age assumption for adults allows cross-country comparisons of maximum amounts of unemployment benefits, which may depend on age or contribution records (see Section 2b above). For each of these family types, net incomes are determined for a range of different earnings levels and/or working hours. The resulting indicators therefore cover a large number of family, labour market and income situations and provide a broad picture of how taxes and transfers potentially affect the incomes of different population sub-groups.

Yet, typical cases can never be fully representative of the actual situation in a particular country. This point is particularly relevant when comparing results across countries as certain family situations (such as lone-parenthood or two-earner families) may be much more common in one country than in others. Similarly, the earnings distribution will differ so that various percentages of AW will be more or less common across countries and for different family types (a study of the representativeness of the APW was carried out in OECD, 1999a).

8. Comparing with earlier results

The results in this publication are not strictly comparable with those reported in earlier editions of Benefits and Wages (OECD, 2002 and 2004). This is first due to the change in the average wage benchmark from average production worker (APW) to average worker (AW) (see Box A.1 above). Second, for some countries, calculation models for some or all

years between 2001 and 2005 have been revised in line with clarifications received from country experts. Therefore, the reader interested in comparisons over time is advised to refer to the series made available on the Internet (*www.oecd.org/els/social/workincentives*).

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ANNEX B

OECD Tax-benefit Models on the Internet

Tax/benefit calculator

This is a new feature which has become available most recently on *www.oecd.org/els/social/workincentives*. How much income do unemployed people get? How much better off would they be if they found a job? Find out how taxes and social benefits in OECD countries affect incomes of people in and out of work. The OECD has taken all those complex legal rules about who is entitled to what benefit and who should pay how much tax in different countries and put them into a simple tax/benefit calculator so that you can choose yourself which comparisons you would like to make. For each country, you can choose from a selection of different family types and earnings levels. A click on the "Calculate" button returns the resulting family incomes in work and out of work. Policy analysts are particularly interested in the ratio of income when unemployed to the income which that person would receive if they worked. This ratio is called the "replacement rate". Calculations take into account the taxes and social security contributions due on earnings and benefits. Benefits such as unemployment benefit, social assistance, family benefits and housing benefits are included in the calculations.

Using the OECD tax-benefit models

Some readers will be interested to find out more about the underlying policy rules and models. The models we use for the calculation of taxes and benefits are written in STATA®, a statistical analysis programme, which was chosen primarily for its ease of use and graphical features. The models can be operated in two ways, either with a standard menu interface, or in batch mode, with multiple family and country options. The menu driven option allows the user to select a country and various options concerning family type and the nature of individual work or unemployment situations. The batch mode reads the various options from a control file, and allows for a faster and more automated generation of data for a large number of different family and work/unemployment circumstances.

Readers of this publication who wish to use the models for their own work can obtain a copy of the relevant programmes. The files (STATA® source code along with very brief instructions) are available on the Internet at *www.oecd.org/els/social/workincentives*. A PC with STATA® (version 9 or above) installed is required to run the tax-benefit models. The programmes are often complex and their proper operation requires a minimum degree of familiarity with both STATA® and the tax-benefit systems operating in the countries of interest. While we welcome feedback and corrections, we are, unfortunately, unable to offer user support. Users of the programmes who wish to contact us with corrections or suggestions for future modelling innovations should contact us at *social.contact@oecd.org*.

ANNEX C

List of Principal Correspondents by Country, 2007

Australia

Andrea Wallace-Green

A/g Section Manager
Policy Advice and OECD Coordination Strategic Policy and Analysis Branch Department of Family and Community Services Box 7788, Canberra Mail Centre, ACT, 2601
andrea.wallace@facsia.gov.au

Austria

Eduard Olbrich

Bundesministerium für Arbeit und Soziales
Grundsatzabteilung
Stubenring 1
A-1010 Vienna
eduard.olbrich@bmsg.gv.at

Belgium

Luc Masure

Chargé de mission
Bureau Fédéral du Plan
Avenue des Arts, 47-49B-1000 Bruxelles
lm@plan.be
Tel: 32 2 507 73 45

Canada

Joan O'Connell

Social Program Analysis
Economic Security Policy Directorate
Strategic Policy and Research Branch
Human Resources and Social Development Canada
joan.oconnell@hrsdc-rhdsc.gc.ca

Olivier Paré

Analyst - Program Assessment
Employment Insurance Policy
Skills and Employment Branch
HRSDC
Tel: (819) 994-9565
Fax: (819) 934-6631
olivier.pare@hrsdc-rhdsc.gc.ca

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Czech Republic Barbora Listíková

Head of International Cooperation Unit
Ministry of Labour and Social Affairs
Na Poíním právu 1
128 01 Praha 2
Czech Republic
Tel: +420 221 922 632
Fax:+420 221 922 223
Cell phone: +420 724 192 047
barbora.listikova@mpsv.cz

Hana Zelenkova

Department of Social Policy
Ministry of Labour and Social Affairs of the Czech Republic
hana.zelenkova@mpsv.cz

Denmark Christina Diekhöner

Ministry of Social Affairs
Division of Economics and Statistics
Holmens Kanal 22
1060 Copenhagen
cdi@socialministeriet.dk

Finland Ilari Keso
Senior Research Officer
Ministry of Social Affairs and Health
Finance and Planning Department
Meritullinkatu 8
P.O.Box 33
00023 Government, Finland
Tel: 358-9-160 73840
Fax: 358-9-160 73824
ilari.keso@stm.fi

France Arnaud Hemery

SGCI (Service Général de la Coordination Internationale)
arnaud.hemery@sgci.gouv.fr

Guillaume Counio

SGCI (Service Général de la Coordination Internationale)
guillaume.counio@sgci.gouv.fr

Germany Volker Schmitt

Federal Ministry of Labour and Social Affairs
1 a 3 Bundesministerium für Arbeit und Sozial- ordnung
Postfach 14 02 80
D-53107
Bonn
volker.schmitt@bmas.bund.de

Greece

Athina Diakoumakou

International Relations Department
Section II
Ministry of Employment and Social Protection
Tel: 0030 210 5295160-161
Fax: 0030 210 5295179
yperg2@otenet.gr

Hungary

Eszter Barla-Szabó

Department for European Integration and International Affairs
Ministry of Social Affairs and Labour
1054 Budapest
Alkotmány u. 3.
Hungary
Tel: + 36 1 473 8107
Fax: + 36 1 472 8535
barla.eszter@szmm.gov.hu

Iceland

Elín Gujónsdóttir

Head of Division
Ministry of Finance
Arnarhvoli, 150
Reykjavík
Tel: +354-545-9200
Fax: +354-562-8280
elin.gudjonsdottir@fjr.stjr.is

Ireland

Pat Lynch

Statistics Unit
Dept. of Social and Family Affairs
Tel: 00 (353) 1704 3834
pat.lynch@welfare.ie

Italy

Cristina Berliri

Ministero del Lavoro e delle Politiche Sociali
Via Fornovo 8, pal. B
Rome
c.berliri@isfol.it

Japan

Yasuhiro Himeno

First Secretary
Permanent Delagation of Japan to OECD
11, avenue Hoche
75008 Paris, France
Tel: +33 (0)1 53 76 61 32
Fax: +33 (0)1 45 63 05 44
himeno@deljp-ocde.fr

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Korea

Jang Sinchul

Permanent Delegation of Korea to the OECD
2-4 rue Louis David
75016 Paris, France
Tel: 33.01.4405.2190
Fax: 33.01.4755.8670
marathonjang@hanmail.net

Luxembourg

Astrid Breyer

Inspection générale de la sécurité sociale
BP 1308
L-1013 Luxembourg
Tel: 478-6335
Fax: 478-6325
astrid.breyer@igss.etat.lu

Netherlands

Marcel Einerhand

Ministry of Social Affairs and Employment
Tel: (31 70) 333 5944
meinerhand@minszw.nl

New Zealand

Alex Smith

Policy Analyst
International Relations Team
Ministry of Social Development
PO Box 1556
Wellington 6001
Tel: 64 916 3327
Fax: 64 4 915 0091
alex.smith051@msd.govt.nz

Norway

Maria Storeng

Ministry of Finance
Postboks 8008 Dep
Oslo
maria.storeng@fin.dep.no

Poland

Marzena Breza

Ministry of Labour and Social Policy
Department of Economic Analyses and Forecasting
marzena.breza@mps.gov.pl

Agnieszka Chlon-Dominczak

Ministry of Labour and Social Policy
Department of Economic Analyses and Forecasting
agnieszka.chlon-dominczak@mps.gov.pl

Portugal Ricardo Rodrigues

DEPP/MSST, Services Director
Rua Castilho, 24 2.^{0} and
1250-069 Lisboa
Tel: 351 21 311 49 09
ricardo.rodrigues@deep.msst.gov.pt

Slovak Republic Xénia Malá

Department of EU Affairs and International – Law Relations
Ministry of Labour, Social Affairs and Family of the Slovak Republic
Spitalska 4 – 6
816 43 Bratislava
Tel: +421 2 5975 1625
Fax: + 421 2 5975 1623
mala@employment.gov.sk

Spain Dolores Allona

Directorate of Social and Labour Statistics
Ministry of Labour and Social Affairs
C/María de Guzmán, 52
28003 Madrid
Tel: 0034 913633701
dallona@mtas.es

Sweden Lars Erik Lindholm

Ministry of Finance
Drottninggatan 21
Stockholm
Tel: +4684051434
lars-erik.lindholm@finance.ministry.se

Switzerland Cyril Malherbe

Juriste, État-major du domaine
Département fédéral de l'intérieur (DFI)
Office fédéral suisse des assurances sociales (OFAS)
Domaine Affaires internationales
Effingerstrasse 20, CH-3003 Berne
Tel: +41 31 32 29108
Fax: +41 31 32 23735
cyril.malherbe@bsv.admin.ch

Turkey Mehmet Inanc Arslan

Assistant Expert
Turkish Ministry of Labour and Social Security
The General Directorate of External Relations
and Services for Workers Abroad
Tel: +903122966517
Fax: +903122152312
iarslan@csgb.gov.tr

United Kingdom Olwen Mitton

JSA Benefits Integrity Team
Products and Service Management Division
Jobcentre Plus
Level 4 East
Rockingham House
West Street
Sheffield
Tel: 0114 259 5600
olwen.mitton@jobcentreplus.gsi.gov.uk

United States Don Oellerich

Deputy Chief
Economist
Office of Human Services Policy
Office of the Assistant Secretary for Planning and Evaluation
200 Independence Av. SW Rm 404E
Washington, D.C. 20201
Tel: 202-690-6805
Fax: 202-690-6562
don.oellerich@hhs.gov

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Benefits and Wages 2007

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Unemployment and related welfare benefits help prevent those without work from falling into poverty but can at the same time reduce the incentive to work; this is one of the main dilemmas of social policy. Launched in 1998, the latest edition of this series (formerly entitled *Benefit Systems and Work Incentives*) provides detailed descriptions of all cash benefits available to those in and out of work as well as the taxes they are liable to pay across OECD countries. A special chapter also compares childcare costs across countries and the financial work incentives faced by parents of young children. Using the OECD tax-benefit models, total household incomes and their components are calculated for a range of family types and employment situations. The results are used to examine financial incentives to work, either part-time or full-time, as well as the extent to which social benefits prevent income poverty for those without a job.

This volume presents results for 2005 and earlier years.

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