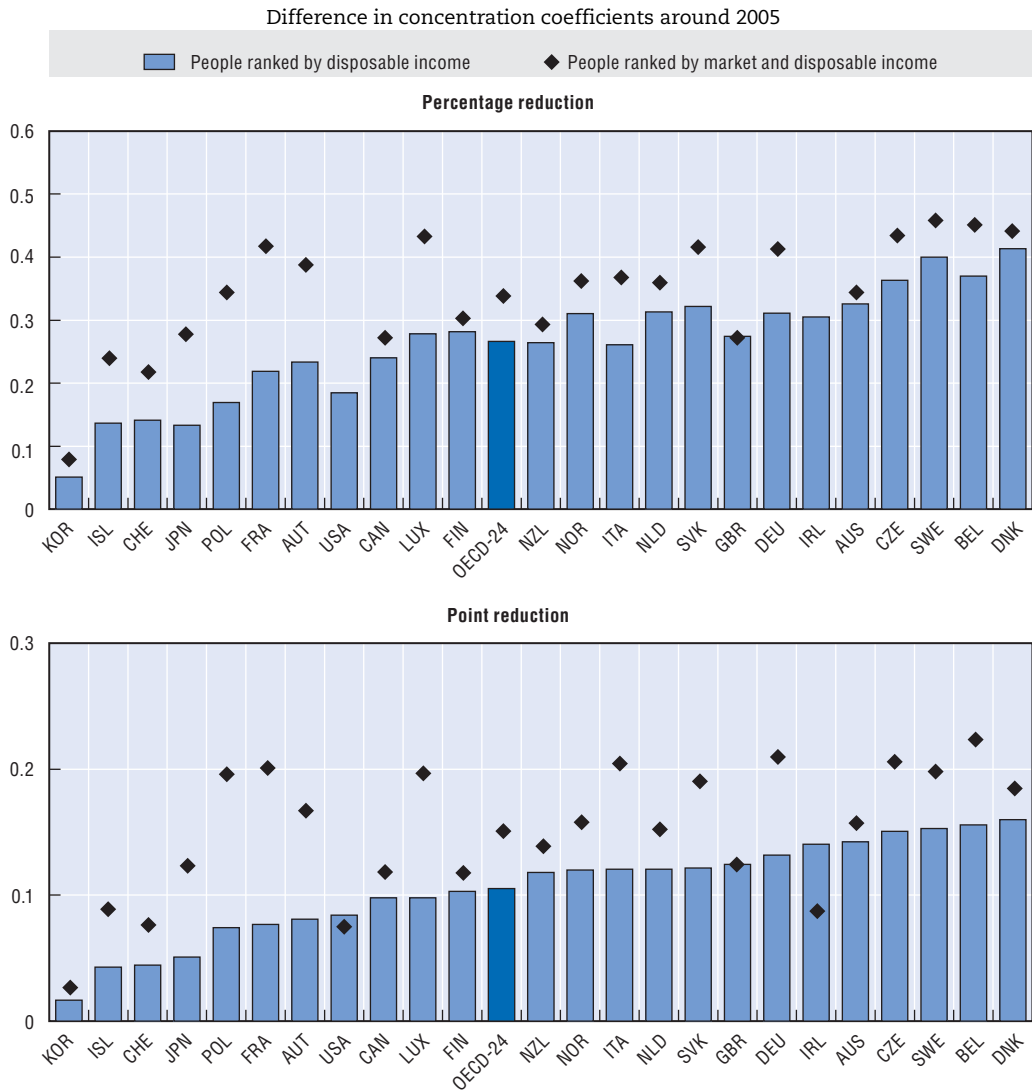


Figure 4.4. **Differences in inequality before and after taxes and transfers in OECD countries**



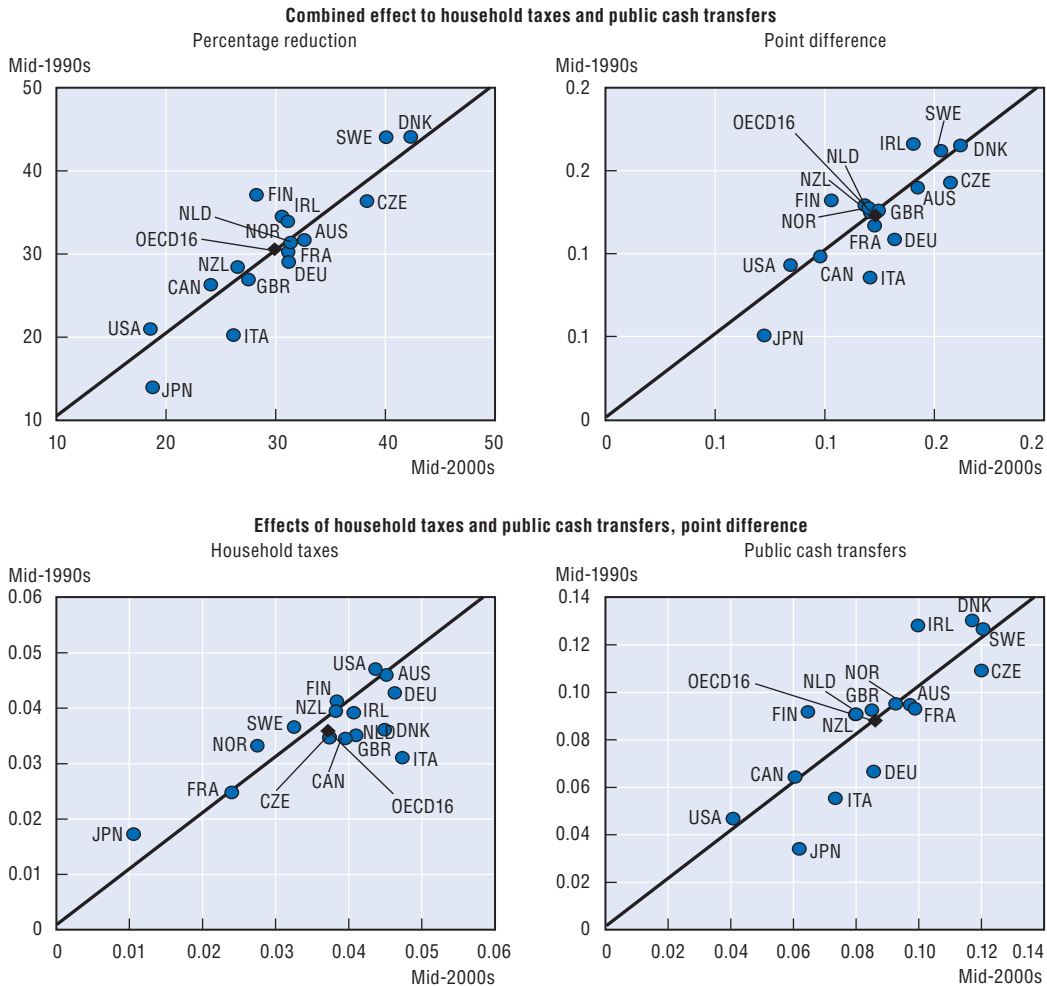
StatLink <http://dx.doi.org/10.1787/421744352206>

Note: Countries are ranked, from left to right, in increasing order of the percentage point reduction in the concentration coefficient achieved by household taxes and public cash transfers, based on people ranked by their household disposable income. Bars are computed based on grouped data for average market and disposable income, by deciles of people ranked by their household disposable income. Diamonds are computed based on individual data, with people ranked by market income (for the Gini coefficient of market income) and ranked by disposable income (for the Gini coefficient of disposable income).

Source: OECD income distribution questionnaire

welfare state spending and taxation have no behavioural impact on the distribution of market incomes. In particular, in countries with generous public pensions, the standard approach implies that middle-class individuals are plunged into market-income poverty on retirement simply because it is the government, rather than the market, that provides their pensions: generous earnings-related public pensions are then measured as being very effective at reducing inequality, in part because they restore middle-income retirees to their pre-retirement ranking. A comparison between the two alternative measures suggests that, in some OECD countries, a very significant part of the redistribution measured by the

Figure 4.7. **Changes in redistributive effects of public cash transfers and taxes over time**



StatLink <http://dx.doi.org/10.1787/421755213675>

Note: Government redistribution is measured by the change in concentration coefficient for market and disposable income “without re-ranking”, as computed based on data for average (market and disposable) income by deciles of people ranked by their household disposable income.

Source: OECD income distribution questionnaire.

more redistribution than in the past (although this may partly reflect greater market income inequality), while others – Finland, Norway, Sweden, Ireland, Canada and the United States – are now less redistributive, and others show very little change.¹³ In some countries such as the Netherlands, an unchanged level of redistribution has gone in hand with lower inequality in the distribution of disposable income reflecting large declines in market income inequality (by close to 6 percentage points). When looking separately at changes in the two levers of government redistribution (bottom panel), the redistributive impact of household taxes appears to have declined in Japan and Norway, and increased in Italy, Denmark, the Netherlands and the United Kingdom. The redistributive impact of public cash transfers fell in Finland and Ireland, while the opposite occurred in Germany and Italy.

A further way of assessing the impact of differing welfare state arrangements is shown in Table 4.6, which provides measures of the efficiency and effectiveness of tax and

Changes in poverty risks by household type over time have been small and mainly limited to single persons. On average, and in most OECD countries, the poverty risk of couples without children is around half that of the total population, while that of couples with children is slightly below average. Conversely, lone parents have a probability of falling into poverty that is around three times higher than average, with little change in the past decade. The situation for single persons without children (including both working-age and retirement-age adults) improved over the past decade.

Poverty among people of working age: the role of paid work

Across the OECD area, around 9% of people of working age had a household disposable income below the 50% threshold in the mid-2000s, a share that has increased by 0.6 point in the past decade. Poverty rates have decreased recently only in seven OECD countries, and then only slightly. While poverty rates among people belonging to this group depend on a range of factors, the most important is whether household members have a paid job. Table 5.1 shows that among all those belonging to a household with a head of working age, those living in households where no one works have a poverty rate of 36% on average, i.e. almost three times higher than in households with one worker, and 12 times higher than households with two or more workers. The poverty rate of households with no workers is above 50% in Australia, Canada, Ireland, Korea, and the United States but below 20% in Denmark, Hungary, Luxembourg and Turkey. Moreover, during the past decade the poverty rate among non-working households has increased considerably (by more than 3 percentage points on OECD average), while it increased by much less (by 1.6 points) for households with one worker, and remained almost at the same level for households with two or more workers.

Because households with workers have lower poverty rates than other households, countries with a higher employment rate for people of working age also tend to record a lower poverty rate among the same group (Figure 5.8, left-hand panel), although with a large variation across countries. Some countries such as Japan or the United States combine high employment rates with above-average poverty rates, while the inverse is the case in Hungary.

The effect of paid work in reducing poverty among households with a head of working age is also evident when looking at the type of job held, i.e. whether working full or part time. Among single adult households (with and without children), 46% of people in jobless households have, on average, income below the 50% threshold. This proportion declines to 28% when the single adult in these families works part time and to 8% when the person works full time. Among people living in couple families, around 33% have income below the 50% poverty line when no one in the household has a paid job. The poverty rate is thus lower for jobless couples than for singles, especially when they have children, reflecting the more generous out-of-work transfers available. The poverty rate falls to 19% when one household member is working part time and to around 4% when at least one is working full time.

Despite the importance of paid work for reducing poverty, many households with workers have income below the 50% poverty line. On average, people living in households with workers account for around 60% of the income poor, with this share ranging from around 25% in Australia and Norway to 80% or more in Japan, Greece, Luxembourg, Turkey, Iceland and Mexico (Figure 5.9). While most of these poor households have only one working member, those with two or more workers account for as much as 17% of all the income poor on average, and for more than one-third in Japan, Turkey and Iceland. While such large cross-country differences may partly reflect differences in the way different sources define “workers”, they also suggest that other factors beyond access to paid work – such as

Table 5.1. Poverty rates for people of working age and for households with a working-age head, by household characteristics

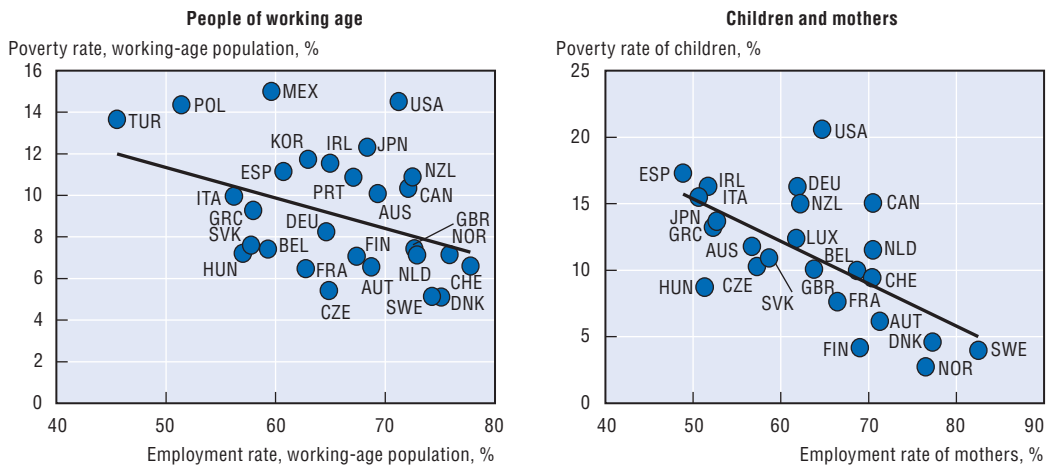
Poverty among people of working age		Poverty in households with a head of working age														
		All	No workers	One worker	Two workers	All	No workers	One worker	Two workers	Single	Level, mid-2000s					
Mid-2000s	Point changes since 1995	All	No workers	One worker	Two workers	All	No workers	One worker	Two workers	Not working	Working part-time	Working full-time	Not working	Only working part-time	At least one working full-time	
			Level, mid-2000s			Point changes since mid-1990s										
Australia	10	1.2	10	55	7	1	0.4	9.0	-0.5	0.2	72	12	2	42	13	2
Austria	7	2.2	6	22	6	3	3.6	1.3	1.7	6.1	31	17	5	35	4	4
Belgium	7	0.5	8	25	8	2	0.0	6.7	0.7	-0.8	29	18	6	22	20	3
Canada	12	2.8	13	66	21	4	2.5	6.2	6.1	1.2	79	50	11	54	23	4
Czech Republic	5	0.7	6	38	7	0	0.9	2.9	-2.0	0.1	56	[.]	6	28	[.]	2
Denmark	5	1.2	5	18	8	1	1.0	4.8	1.5	0.3	22	28	1	15	6	0
Finland	7	1.7	6	34	10	1	1.8	13.4	1.2	-0.2	47	13	2	16	13	1
France	7	-0.6	7	22	10	2	0.1	7.6	0.1	-0.7	31	8	6	18	4	4
Germany	10	2.8	12	40	7	1	3.4	4.7	1.9	-0.1	49	32	5	32	25	2
Greece	9	-1.2	10	26	18	3	-0.5	4.7	3.6	-1.2	33	34	9	22	25	8
Hungary	7	1.0	7	19	6	4	0.2	-4.9	-4.6	-0.7	39	[.]	[.]	15	11	2
Iceland	7	..	7	28	19	4	..	..	..	..	23	25	10	40	13	5
Ireland	12	3.3	13	63	15	2	..	..	..	..	75	36	7	55	29	3
Italy	10	-2.8	11	36	16	1	-3.1	-2.2	-1.3	-3.1	40	50	4	36	33	8
Japan	12	0.4	12	42	14	9	0.8	2.2	1.3	-0.3	57	..	..	31	..	..
Korea	12	..	11	58	13	4	..	..	..	..	53	..	..	61	..	..
Luxembourg	8	2.8	9	19	15	3	3.3	7.3	7.3	1.6	28	35	12	14	28	10
Mexico	15	-2.2	18	37	26	10	-2.9	-3.5	-0.2	-3.5	30	..	..	41	..	..
Netherlands	7	0.6	8	34	13	2	1.0	-0.3	4.4	0.9	40	..	..	27	..	..
New Zealand	11	3.3	12	46	19	4	2.5	15.2	8.5	0.1	51	41	9	42	[.]	6
Norway	7	1.0	6	38	4	0	0.9	1.0	0.0	0.2	47	[.]	[.]	22	..	..
Poland	14	..	16	33	23	5	..	..	..	..	40	..	..	31	..	..
Portugal	11	-0.4	11	37	24	3	0.0	-2.4	3.3	0.2	58	31	16	33	26	8
Slovak Republic	8	..	9	38	15	1	..	..	..	..	35	21	20	40	21	6
Spain	11	-0.4	11	49	18	4	-0.2	9.6	1.5	1.5	62	27	18	46	26	9
Sweden	5	1.0	5	23	9	1	1.4	7.6	2.6	0.2	23	16	1	21	[.]	1
Switzerland	7	0.5	6	25	6	2	0.5	6.2	2.5	-3.0	26	[.]	[.]	25	[.]	[.]
Turkey	14	0.4	17	19	17	18	1.8	-11.5	4.2	4.2	33	[.]	[.]	18	[.]	[.]
United Kingdom	7	-0.3	8	33	7	1	-1.2	-1.4	-1.9	0.0	38	11	3	28	22	2
United States	15	1.0	16	71	25	5	0.0	-3.2	-0.8	-0.4	80	54	14	63	12	7
OECD	9	0.8	10	36	14	3	0.7	3.2	1.5	0.1	46	28	8	33	19	4

Note: Poverty thresholds are set at 50% of the median income of the entire population. Data for changes refer to the period from the mid-1990s to around 2000 for Austria, Belgium, the Czech Republic, Ireland, Portugal and Spain (where 2005 data, based on EU-SILC, are not comparable with those for earlier years), and to changes from 2000 to 2005 for Switzerland. [.] indicates that the sample size is too small. Data for Switzerland in columns 4 to 17 refer to households without children.

Source: Computations from OECD income distribution questionnaire.

StatLink  <http://dx.doi.org/10.1787/422446454016>

Figure 5.8. **Poverty and employment rates, around mid-2000s**

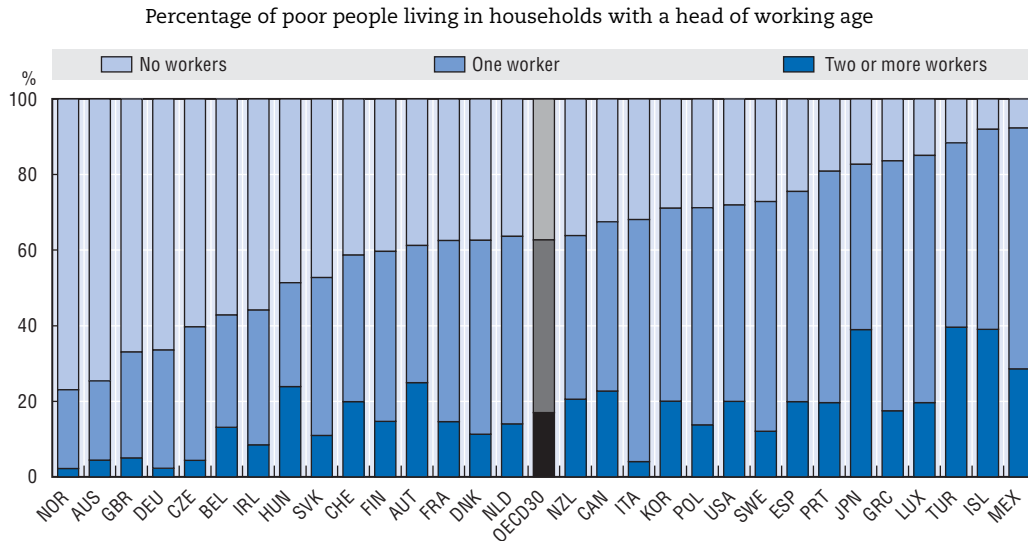


StatLink <http://dx.doi.org/10.1787/422187281362>

Note: Poverty thresholds are set at 50% of the median income of the entire population. Employment rates of persons of working age in 2003; employment rates of mothers in 2002.

Source: Computations from OECD income distribution questionnaire.

Figure 5.9. **Shares of poor people by number of workers in the household where they live, mid-2000s**



StatLink <http://dx.doi.org/10.1787/422210017310>


Note: Poverty thresholds are set at 50% of the median income of the entire population. Countries are ranked, from left to right, in increasing order of the share of poor people living in households with no workers. Data for Switzerland refer to households without children.

Source: Computations from OECD income distribution questionnaire.

the number of hours worked each year and the hourly wage received – contribute to the risk of insufficient economic resources. Indeed, out of the 18 OECD countries where wages are subject to statutory minima, only in 8 (Luxembourg, the Czech Republic, Japan, New Zealand, Poland, Ireland and Australia) the net income of minimum wage earners with inactive spouses in the 2005 was high enough to keep a family with two children out of poverty (OECD, 2007).¹⁴

Table 5.3. **Poverty rates among the elderly and people living in households with a retirement-age head by household characteristics**

Poverty among people of retirement age			Poverty in households with a head of retirement age									
			All		Working		Not working		Singles		Couples	
Mid-2000s	Point change since mid-1990s		Mid-2000s	Point change since mid-1990s	Mid-2000s	Point change since mid-1990s	Mid-2000s	Point change since mid-1990s	Mid-2000s	Point change since mid-1990s	Mid-2000s	Point change since mid-1990s
Australia	27	4.6	27	5.6	4	3.2	32	5.4	50	-4.8	18	9.8
Austria	7	-5.7	8	-6.0	7	5.3	9	-7.6	16	-11.6	4	0.2
Belgium	13	-3.5	12	-2.3	4	-0.6	13	-3.7	17	-6.8	10	0.1
Canada	6	2.9	7	3.2	2	0.7	10	4.8	16	7.3	4	1.8
Czech Rep.	2	-6.5	3	-5.8	[.]	[.]	3	-6.2	6	-19.1	2	0.5
Denmark	10	-2.1	10	-2.2	2	0.6	12	-2.3	17	-4.4	4	0.3
Finland	13	5.3	14	5.9	11	7.7	14	5.5	28	12.5	4	2.3
France	4	-0.2	9	-2.1	1	-5.9	9	-1.4	16	0.2	4	-2.4
Germany	9	-2.0	8	-1.6	2	-4.7	9	-1.2	15	0.2	5	-1.8
Greece	23	-6.6	21	-7.0	7	-10.5	31	-3.1	34	-4.5	18	-7.1
Hungary	5	-2.5	5	-2.9	[.]	[.]	5	-5.2	11	-6.9	1	-2.7
Iceland	5	..	5	..	3	..	7	..	10	..	2	..
Ireland	31	18.8	25	..	5	..	36	..	65	..	9	..
Italy	13	-2.3	13	-2.1	3	0.4	17	-4.5	25	-7.5	9	-1.2
Japan	22	-1.0	21	-1.1	13	-1.8	30	-7.6	48	-7.9	17	-1.5
Korea	45	..	49	..	35	..	69	..	77	..	41	..
Luxembourg	3	-1.8	3	-1.6	[.]	[.]	4	-5.4	4	-5.6	3	-6.4
Mexico	28	-4.6	23	-8.6	19	-9.1	39	-7.9	45	-5.9	21	-9.2
Netherlands	2	0.9	2	0.8	2	1.1	2	0.7	3	-0.1	2	1.3
New Zealand	2	0.2	4	2.5	1	-3.8	2	1.6	3	2.1	1	-0.1
Norway	9	-6.8	9	-7.1	1	-1.1	10	-7.9	20	-13.8	1	-2.1
Poland	5	..	6	..	6	..	6	..	6	..	6	..
Portugal	17	-1.1	20	-2.2	5	-4.6	25	-1.0	35	-4.8	16	-2.0
Slovak Rep.	6	..	4	..	[.]	[.]	7	..	10	..	3	..
Spain	17	-1.1	27	16.8	12	-4.3	32	23.3	39	32.7	24	12.6
Sweden	6	2.6	6	2.7	3	1.1	7	3.2	13	5.8	1	0.5
Switzerland	18	4.3	18	-1.8	[.]	[.]	[.]	[.]	24	6.1	15	3.4
Turkey	15	-8.1	18	-4.1	20	0.6	16	-16.4	38	-6.2	17	-4.0
United Kingdom	10	-2.1	10	-0.8	1	0.1	12	-2.5	17	-0.9	7	-1.3
United States	24	2.9	24	3.2	9	1.4	34	5.0	41	3.0	17	3.2
OECD	13	-0.5	14	-0.7	7	-1.2	17	-1.4	25	-1.6	9	-0.4

StatLink  <http://dx.doi.org/10.1787/422457006467>

Note: Poverty thresholds are set at 50% of the median income of the entire population. Data for mid-2000s refer to around 2000 for Japan and Switzerland. Data for changes refer to the period from the mid-1990s to around 2000 for Austria, Belgium, Czech Republic, Denmark, France, Ireland, Portugal and Spain (where 2005 data, based on EU-SILC, are not comparable with those for earlier years). [.] indicates that the sample size is too small. Data based on cash income (see note 13 for the implications of this).

Source: Computations from OECD income distribution questionnaire.

and France, while the percentage difference in poverty headcounts due to the combined effect of household taxes and public cash transfers ranges from 12% in Korea to 80% in Denmark and Sweden, and is a little over 60% on average. These large cross-country differences in the poverty-reducing effects of public cash transfers and household taxes – and the significant negative correlation between disposable income poverty and the poverty-reduction effects of net public transfers – imply that countries with higher market-income poverty are not necessarily those with higher poverty based on final income.

Box 7.2. Description of deprivation items used in this section (cont.)

7. **Ability to make ends meet** is assessed through questions on whether, “Thinking of your household’s total monthly income, is your household able to make ends meet with great/some difficulty/fairly easily” for European countries; those indicating “very poor situation” in response to questions about the household’s “prosperity, given current needs and financial responsibilities” for Australia; whether “the family runs into red every month” for Japan; whether “during the past 12 months, has there been a time when you did not meet all of your essential expenses” for the United States.

Data on these items are available for 22 European countries based on the Survey on Income and Living Conditions (EU-SILC) conducted in 2005; for Australia, based on the survey Household Income and Labour Dynamics in Australia (HILDA) conducted in 2005; for Japan, based on the *Shakai Seikatsu Chousa* (Survey of Living Conditions) conducted in 2003; and for the United States, based on the Survey of Income and Program Participation, SIPP, conducted in 2003. While these are large, official surveys for most countries, the survey used for Japan is an unofficial and experimental survey designed by the National Institute of Population and Social Security Research, with a (nationally representative) sample limited to around 2 000 households and around 6 000 persons aged 20 years and above, with data on household income provided through categorical answers. For the United States, where SIPP data refer to gross (*i.e.* pre-tax) income, income values “after taxes” have been obtained by applying the TAXSIM model of the National Bureau of Economic Research to the SIPP data.

types of deprivation based on responses from the household head or reference person, ignoring possible differences in assessments of their own conditions provided by various members of the same household.⁸

Prevalence of different deprivation items

The natural starting point for a comparative assessment of material deprivation is provided by prevalence rates for each of the seven items described above. Two main patterns stand out from Table 7.2:

- First, patterns differ across items. On average, across the countries considered, 20% of respondents declared being unable to make ends meet, while smaller shares of respondents report living in overcrowded housing or in areas with poor environmental conditions (18% and 16% respectively). The frequency of other deprivation items (inadequate heating and food consumption, payment arrears for utilities and rents) is, on average, below 10%.⁹
- Second, differences across countries are significant. In general, Nordic countries (except Iceland) record the lowest prevalence rates for all the items considered, Southern and Eastern European countries have some of the highest shares in almost all dimensions, while Australia, Japan and the United States are somewhere in the middle.¹⁰

Another perspective on the prevalence of material deprivation is provided by information on the number of items that people lacked on average. Figure 7.2 shows large differences in the share of people lacking two or more items, ranging from 10% in all Nordic countries (except Iceland), Luxembourg, Austria and the Netherlands, to 20% or more in Italy, the Czech Republic, Australia, the United States and Japan, and to 40% or more in Greece, Hungary, the Slovak Republic and Poland. The share of people lacking three or more

Table 7.2. Prevalence of different forms of material deprivation
Shares of total population, based on individual data

	Inadequate heating	Constrained food choices	Over-crowding	Poor environmental conditions	Arrears in paying utilities	Arrears in mortgage or rents	Inability to make ends meet	Average across items
<i>European countries</i>								
Austria	3.1	8.7	15.1	9.1	1.7	1.3	8.8	6.8
Belgium	14.0	3.8	5.1	16.8	5.7	3.0	17.1	9.4
Czech Republic	9.3	17.8	33.5	19.8	7.2	6.3	30.2	17.7
Denmark	8.9	1.9	7.7	6.7	2.8	3.1	6.8	5.4
Finland	2.6	2.9	5.9	12.8	7.4	4.4	8.5	6.3
France	5.3	6.4	6.4	17.2	7.2	6.2	16.2	9.3
Germany	4.4	10.1	6.5	21.1	2.7	2.4	11.3	8.3
Greece	15.6	5.8	33.4	33.4	18.1	26.5	6.6	19.9
Hungary	17.7	31.2	46.1	17.2	15.9	2.8	35.4	23.8
Iceland	9.4	4.2	11.9	7.7	7.7	9.9	13.3	9.1
Ireland	4.0	2.9	6.8	7.6	6.9	5.0	24.8	8.3
Italy	10.6	6.3	26.3	22.1	10.5	3.4	34.6	16.3
Luxembourg	0.9	2.4	12.0	18.6	3.2	2.2	6.3	6.5
Netherlands	3.1	2.6	3.7	14.9	3.2	3.8	16.9	6.9
Norway	1.3	3.6	5.9	7.7	7.9	5.9	8.7	5.9
Poland	33.6	35.3	52.5	13.8	24.4	2.3	51.5	30.5
Portugal	41.9	4.0	19.6	20.7	5.2	2.9	36.9	18.7
Slovak Republic	13.6	41.4	46.8	18.7	8.3	4.2	30.6	23.4
Spain	8.6	2.3	8.4	16.8	3.7	2.6	26.8	9.9
Sweden	1.4	3.2	8.4	5.0	5.0	5.1	8.5	5.2
United Kingdom	5.6	6.1	8.5	13.9	0.1	4.9	12.9	7.4
<i>Non-European countries</i>								
Australia	2.4	3.0	9.0	11.1	16.7	8.0	34.6	12.1
Japan	0.5	10.5	15.0	29.8	4.3	6.0	26.7	13.3
United States	5.1	16.4	14.1	25.4	10.0	6.3	14.2	13.0
<i>Averages</i>								
EU-21	10.2	9.7	17.6	15.3	7.4	5.2	19.6	12.1
OECD-24	9.3	9.7	17.0	16.2	7.7	5.4	20.3	12.2

StatLink  <http://dx.doi.org/10.1787/423075011583>

Source: OECD Secretariat calculation based on different household surveys.

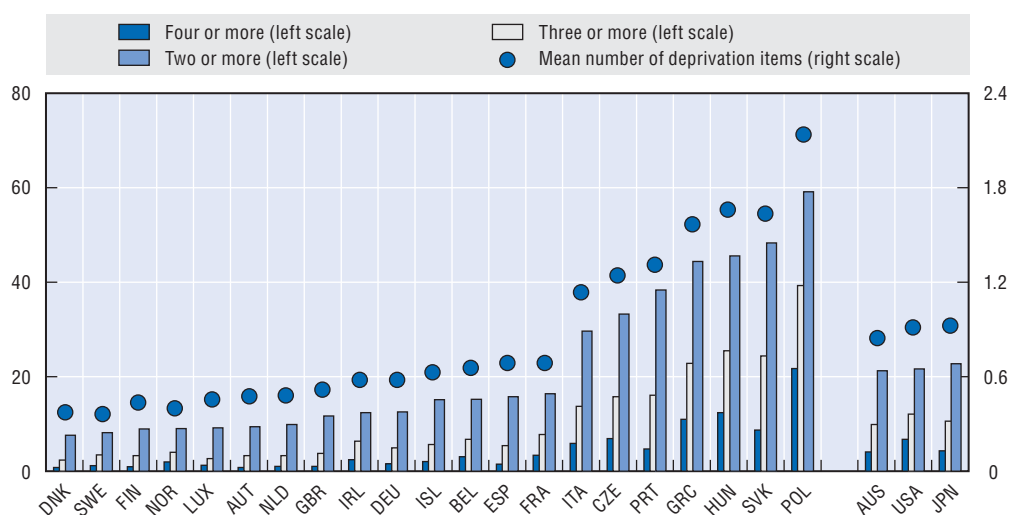
items is below 5% in the Nordic countries, Luxembourg, Austria, the Netherlands as well as in the United Kingdom and Germany, but above 10% in Italy, the Czech Republic, Portugal, Japan and the United States, and above 30% in Greece, Hungary, the Slovak Republic and Poland. The average number of items lacked varies from 0.5 or less in several European countries to around 1 in Italy, the Czech Republic, Australia, the United States and Japan, and to 1.5 or more in Greece, Hungary, the Slovak Republic and Poland.¹¹

Characteristics of individuals experiencing multiple deprivation

People reporting multiple deprivations share a number of characteristics. The most important of these is income. Households that are experiencing material deprivation have a lower (equivalised) disposable income than those that are not, and the larger the number of items of deprivation in a household, the lower is household income. All countries shown in Figure 7.3 conform to this pattern of monotonic declines of income for increasing numbers of deprivation items, although with differences in this profile – which is (marginally) steeper in the United Kingdom and flatter in Australia and Sweden.¹²

Figure 7.2. **Share of people lacking different numbers of deprivation items and mean number of items lacked**

Based on individual data



StatLink <http://dx.doi.org/10.1787/422725806623>

Note: European and non-European countries are ranked separately, from left to right, in increasing order of the share of people reporting deprivation in two or more items.

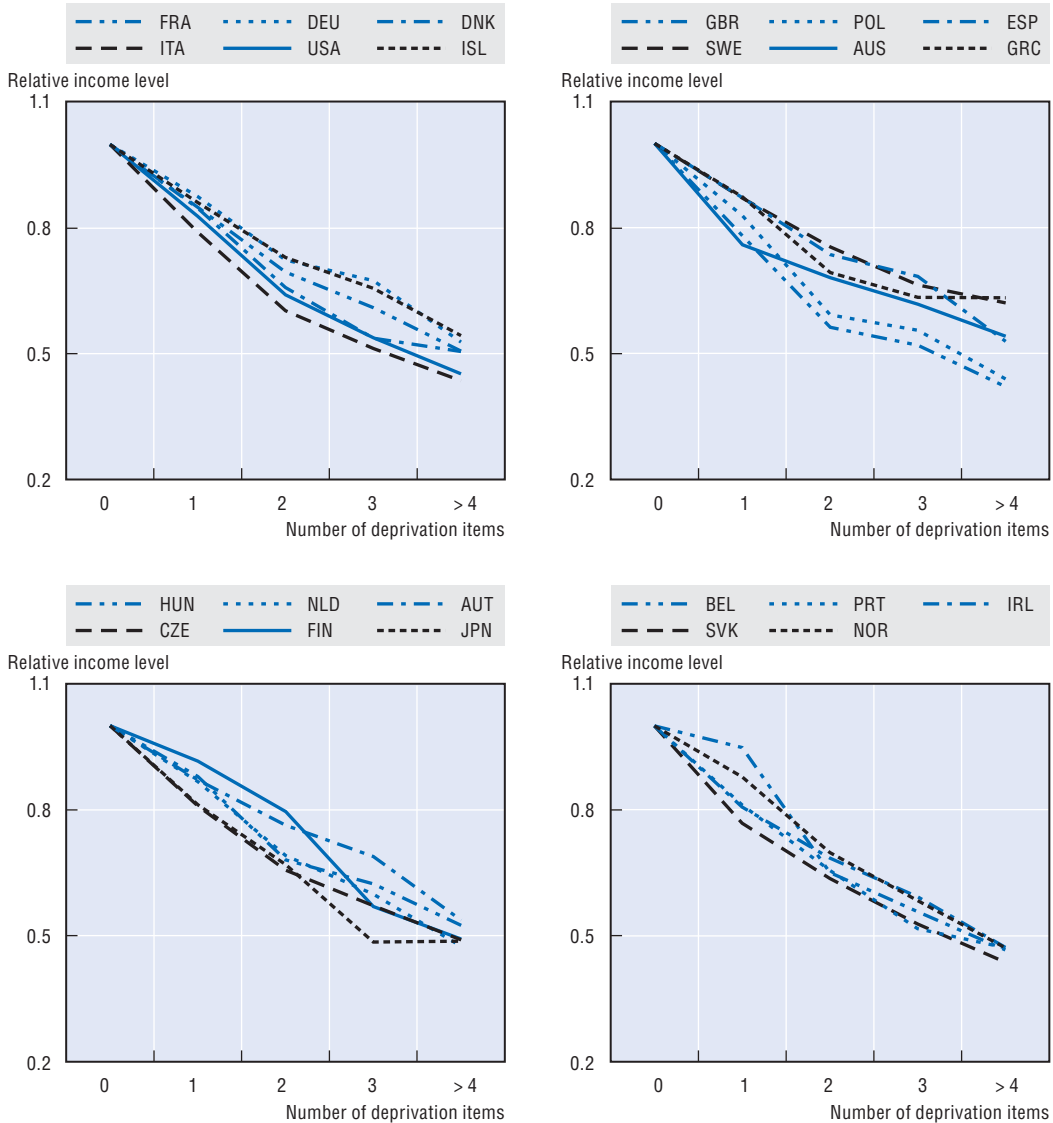
Source: OECD Secretariat calculation based on different household surveys.


A second dimension that is important is the age of each person experiencing deprivation. Figure 7.4 shows the share of each age group reporting two or more deprivation items (top panel) and three or more items (bottom panel), relative to the corresponding share for the entire population. These profiles decline monotonically with the age of each person, a pattern that contrasts with the U-shaped profile for the income-poverty headcount described in Chapter 5. This suggests that household disposable income over-estimates the risk of inadequate consumption among the elderly. There are, however, differences in these age-deprivation profiles across countries – with high risks of deprivation for young adults in Denmark and the very elderly in Greece and Portugal, and much flatter profiles (*i.e.* small declines in the frequency of material deprivation with people's age) in Austria, Hungary, Poland, Portugal, the Slovak Republic and the United States.¹³

The risk of material deprivation also differs with the characteristics of the household where individuals live. Among households with a head of working age (Table 7.3), the experience of multiple deprivations is higher among singles than couples; among households with children than those without; and among households where no one is working than those where someone is. There are, however, exceptions and large differences in the deprivation-risk of different household types across countries. For example, couples with children have a below-average risk of deprivation (at 0.9, across the 25 OECD countries considered) when both parents work (although this is not true in eight countries) but an above-average one when only one person is working (1.8) and especially when no one works (3.1) – with a deprivation risk for jobless couples of 5 in Austria, Poland and Sweden. Among lone parents, the risk of deprivation is, on average, around 3 when the single parent is jobless (and above 5 in Luxembourg, Norway and Poland) and below 2 when

Figure 7.3. **Relative income of individuals with different numbers of deprivation items**

Relative to people who are not materially deprived, based on individual data



StatLink  <http://dx.doi.org/10.1787/422738465847>

Source: OECD Secretariat calculation based on different household surveys.

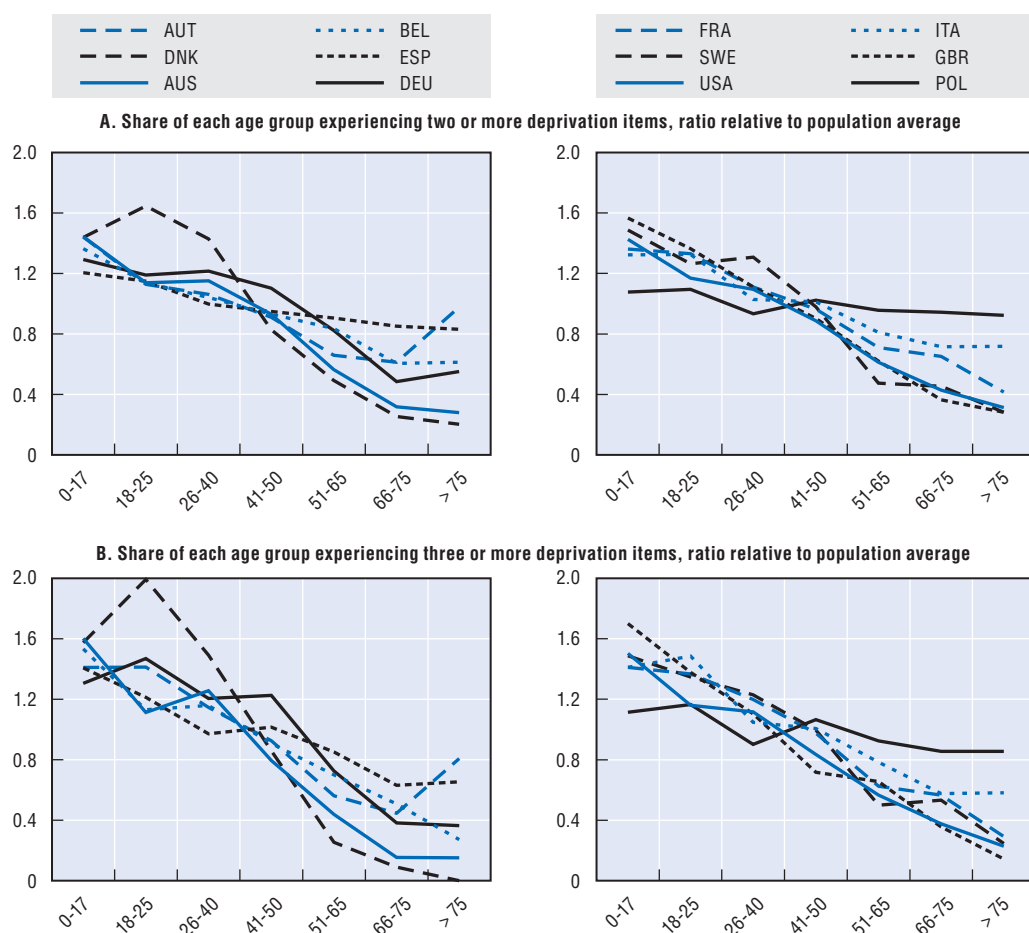
he or she is working (with a deprivation risk above 2 in Denmark, Finland, France, Ireland, the Netherlands, Norway, Sweden and Japan).¹⁴

Overlap between material deprivation and income poverty

The pattern of income falling as the number of deprivation items experienced by people rises might be taken to imply a significant degree of consistency between income and deprivation at the individual level. In reality, the overlap between the income poor and those reporting different numbers of deprivation items is far from perfect. Figure 7.5 presents information on the number of people who are *both* deprived (in two or more items) and income poor (based on a threshold set at half of median income) and the

Figure 7.4. **Risk of multiple deprivation by age of individuals**

Based on individual data


 StatLink  <http://dx.doi.org/10.1787/422745863337>

Note: No data on deprivation by age of individuals are available for Japan.

Source: OECD Secretariat calculation based on different household surveys.


number in *either* of these conditions, as well as the share of all people who are materially deprived and have income of less than half of the median. Several patterns stand out:

- The overlap is in general only partial, i.e. only a small proportion of people reporting material deprivation are also income poor, and *vice versa*. On average, only 20% of people deprived in two or more items have income below the 50% threshold, with this share ranging from around 30% in the United States and Luxembourg, down to 10% in the Netherlands and the Slovak Republic (see Table 7.A2.1 available at <http://dx.doi.org/10.1787/424402577838>).
- Relatively few people experience *both* income poverty and material deprivation. On average, around 4% of all people have both income below the 50% threshold and experience two or more deprivations. Across countries, this share varies from less than 2% in Sweden, Denmark, Norway, Finland and Austria, up to 6% or more in Japan, Italy, the United States, Portugal, Greece and Poland.

Table 7.3. Risk of experiencing two or more deprivations for people living in households with a head of working age, by household characteristics

Relative to the population average, based on individual data

	Household with a head of working age									
	Single adults				Couples					
	Without children		With children		Without children			With children		
	Working	Not working	Working	Not working	Two or more workers	One worker	No worker	Two or more workers	One worker	No worker
<i>European countries</i>										
Austria	0.7	2.2	1.9	4.2	0.7	0.6	0.7	1.0	1.6	5.1
Belgium	0.9	2.4	1.5	3.7	0.4	0.8	1.1	0.5	1.9	3.7
Czech Rep.	0.6	1.3	1.6	1.9	0.7	0.8	0.9	1.0	1.6	2.7
Denmark	1.4	2.9	2.5	4.7	0.4	0.5	0.5	0.8	2.8	4.7
Finland	1.2	2.5	2.7	3.9	0.5	0.7	1.3	1.0	2.2	3.1
France	1.0	2.0	2.2	3.9	0.6	0.8	0.8	0.8	1.9	3.6
Germany	1.1	2.7	1.8	3.6	0.6	0.9	0.8	0.8	1.4	3.6
Greece	0.8	0.8	1.4	0.9	1.0	0.9	1.0	0.9	1.2	1.6
Hungary	0.7	1.1	1.1	1.8	0.8	1.0	1.0	1.1	1.4	1.9
Iceland	0.9	3.0	1.8	2.0	0.6	0.7	0.8	1.1	2.6	3.0
Ireland	0.7	1.9	2.3	4.6	0.2	0.7	0.9	0.6	1.5	4.4
Italy	0.7	1.2	1.1	1.4	0.8	0.8	0.9	1.1	1.7	2.3
Luxembourg	0.5	2.4	1.8	6.0	0.4	0.6	0.6	1.4	1.6	2.2
Netherlands	1.1	2.9	2.5	5.9	0.5	0.7	1.2	0.8	1.7	4.2
Norway	1.3	2.8	2.3	5.7	0.4	0.8	1.0	0.8	2.6	6.4
Poland	0.7	1.1	1.0	1.4	0.8	0.9	1.1	0.9	1.2	1.4
Portugal	0.8	1.2	1.2	1.6	0.8	0.9	1.1	1.1	1.3	1.6
Slovak Rep.	0.6	0.9	1.0	1.7	0.9	0.9	1.0	1.1	1.2	1.5
Spain	0.9	1.9	1.5	2.0	0.8	0.9	1.1	1.1	1.2	2.2
Sweden	1.1	2.9	2.1	6.7	0.4	0.9	1.2	0.9	2.5	6.4
United Kingdom	0.9	2.1	1.6	3.1	0.5	0.6	1.0	0.7	1.8	2.5
<i>Non-European countries</i>										
Australia	1.1	1.8	1.5	3.2	0.5	0.9	0.7	0.9	1.5	2.4
Japan	2.1	1.2	3.0	2.2	0.9	1.1	0.5	1.1	1.5	2.1
United States	0.8	1.6	1.7	2.5	0.5	0.8	0.9	1.0	2.5	1.5
<i>Averages</i>										
EU-21	0.9	2.0	1.8	3.4	0.6	0.8	0.9	0.9	1.8	3.2
Non EU-3	1.4	1.5	2.1	2.6	0.6	0.9	0.7	1.0	1.8	2.0
OECD-24	0.9	2.0	1.8	3.3	0.6	0.8	0.9	0.9	1.8	3.1

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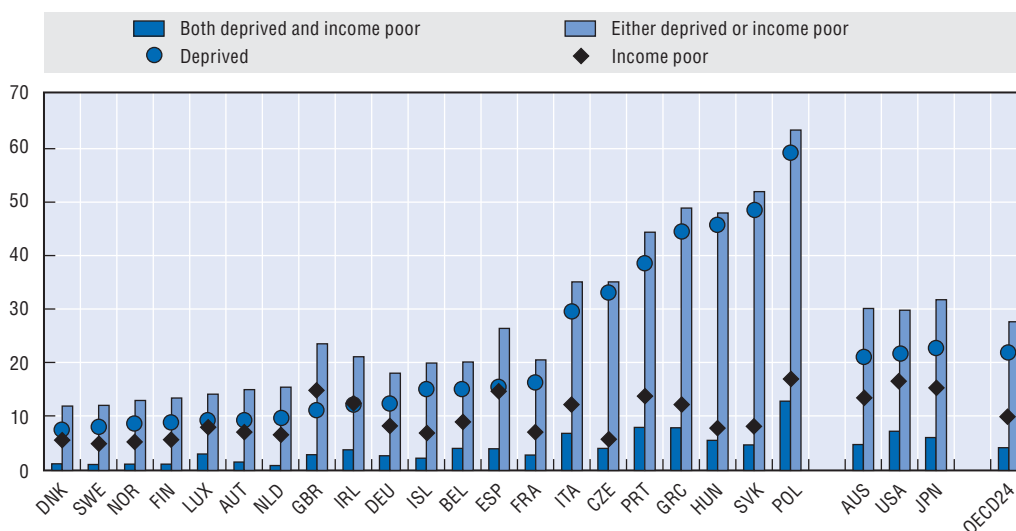
Note: The risk of deprivation is measured as the share of people in each household type experiencing two or more deprivation items divided by the share for the entire population.


Source: OECD Secretariat calculation based on different household surveys.

- While people who are *both* income poor and materially deprived may be considered as being in severe conditions, the number of those who are *either* income poor or deprived provides an upper bound estimate of those facing a risk of poverty. People in this group may be reducing their consumption patterns, despite having an income that is above the conventional poverty line, or they may afford typical consumption patterns, despite their low income, through additional resources. The share of people in either of these two conditions is at 28% on average, ranging from 40% or more in Portugal, Hungary, Greece, the Slovak Republic and Poland, down to 15% or less in Denmark, Sweden, Norway, Finland, Luxembourg and Austria.¹⁵

Figure 7.5. **Share of people who are both deprived and income poor and either deprived or income poor**

People deprived in two or more items and with income below half of median household disposable, estimates based on individual data



StatLink  <http://dx.doi.org/10.1787/422866807520>

Note: European and non-European countries are ranked separately, from left to right, in increasing order of the share of people reporting deprivation in two or more items.

Source: OECD Secretariat calculation based on different household surveys.

Conclusion

While both of the approaches used in this chapter – *i.e.* the one based on averaging at the country level across a large number of items, and the one based on looking at how many people experience different types of deprivation for a more narrow range of items – have limits, when combined they highlight a number of patterns that go beyond those based on static income:

- There are large differences across OECD countries in the extent of material deprivation. Based on a measure that aggregates data on the prevalence of different items, deprivation is higher in countries with lower income and higher relative-income poverty.
- Evidence from individual data shows that the experience of deprivation declines monotonically with income. It also declines with age, in contrast to the U-shaped relation between relative income poverty and age described in Chapter 5, suggesting that income-poor older people are not necessarily experiencing material hardship.
- Individual data also suggest that, while there is some overlap between low income and deprivation, a large share of the income poor are not materially deprived; this pattern may reflect the temporary nature of many spells of low-income, the features of the deprivation questions considered here (*i.e.* capturing dimensions that go beyond a minimum standard of living), and the availability of other means through which low-income people may support their living conditions (*e.g.* in-kind transfers, the running down of assets or the accumulation of debt). Conversely, a large share of the population as a whole experience either low income or deprivation.

This chapter is only an attempt to use the information currently available on material deprivation in a comparative setting. Better comparative measures can be achieved only through greater *ex ante* standardisation of surveys, so as to include a larger set of items that are comparable across countries. Achieving such standardisation in statistical sources is an investment worth doing in the light of the importance for social policy of measuring material deprivation accurately. Standardised measures are important not only for benchmarking countries' performance, but also in order to improve the targeting of individual programmes. This is especially important in countries where income is a poor proxy of economic needs. Indirectly, measures of material deprivation also point to the importance of looking at factors that go beyond the income and earnings capacity of people, to other constituents of an acceptable standard of living.

Notes

1. For example, Callan *et al.* (1996) shows that a much smaller minority of households in Ireland fail to satisfy their basic needs compared to those counted as income poor, and that their incidence has declined over time even when income poverty was rising.
2. Absolute thresholds define poverty on the basis of a normative judgment of, for example, what qualifies as basic needs or what is the proportion of food expenses in the household's budget. While most of these measures are not purely "absolute" – i.e. the threshold is both time- and space-specific – their common characteristic is that they build on *a priori* assumptions of what basic needs should be satisfied. Conversely, relative-income measures such as those used in Chapters 5 and 6 of this report fix an arbitrary threshold relative to the most "typical" standard of living in society (e.g. median income).
3. Van den Bosch (2001) provides a comprehensive discussion of the subjective dimensions of deprivation and a detailed description of methods used for the subjective assessment of poverty. Gallie and Paugam (2002) provide useful discussions of issues related to the social environment.
4. Across countries, there is in general a positive correlation between the deprivation items included in Table 3 in Boarini *et al.*, 2006 (the average of these correlation coefficients is 66%). Inability to clothe properly is the item most highly correlated with others, and inability to adequately heat the home the least (with these two items recording the highest and lowest cross-country variability).
5. Data are available, however, for only a few OECD countries. These data also raise specific problems of interpretation: first, because most households reporting material deprivation are also likely to face constraints in financial markets, hence limited indebtedness; second, because the availability of consumer loans depends on the characteristics of credit markets, which differ among OECD countries.
6. This share is higher in the United States (24%), where, however, this question is only asked to those households that experienced problems in meeting essential expenses (rather than all households). Also, the questions in the US survey refer to help received in specific contingencies (rather than in general) and to persons who did not expect to receive any help in a broader range of (non-financial) contingencies. Because of these differences in survey questions, data for the United States are not included in Table 8 in Boarini *et al.* (2006).
7. For example, overcrowding is defined more strictly in the case of Japan than for other countries while, conversely, questions about constrained food choices and poor environmental conditions encompass a larger menu of contingencies for the United States than elsewhere.
8. In the case of Australia, questions on material deprivation are answered separately by each household member. While the deprivation data for Australia used in this section are those provided by the household head, Breunig *et al.* (2005) highlight significant differences in the reporting of material deprivation among partners of the same household, especially for households with intermediate levels of income, with other household members often reporting various forms of deprivation even when the household head does not. This implies that survey which rely upon a representative individual to report about financial difficulty are missing important information about material hardship, and suggests that, in the presence of a significant disagreement between partners on their experience of financial difficulties, many household will be misclassified.

9. The larger share of people reporting “inability to make ends meet” relative to other items partly reflects the more general and subjective nature of this type of question.
10. The share of people unable to make ends meet ranged from less than 10% in the Nordic countries (except Iceland), Luxembourg, Austria and Greece to 25% or more in the Czech Republic, Hungary, Ireland, Italy, Poland, Portugal and the Slovak Republic, as well as Japan and Australia. The share of people reporting inadequate heating is above 10% in Belgium, Greece, Hungary, Italy, Poland, Portugal and the Slovak Republic, and the same occurs for constrained food choices in the Czech Republic, Germany, Hungary, Poland, the Slovak Republic, as well as Japan and the United States. More than 10% of people report arrears in paying utility bills in Greece, Hungary, Italy, Poland, Switzerland, Australia and the United States, and the same share reports arrears in paying mortgages or rents in Greece and Iceland.
11. Some of the approaches that might be used to derive a measure of the prevalence of non-income poverty based on a synthetic measure of multiple deprivations are described in Annex 7.A1.
12. An alternative approach to describing the relation between income and material deprivation is used by Saunders and Adelman (2006), who plot the share of people in the various income groupings (in decreasing order of income) that are also materially deprived: their results show that this gradient is steeper and more monotonic in Australia than in the United Kingdom.
13. Across the 24 OECD countries with available data, people aged 66 to 75 and over 75 have, respectively, a risk of deprivation that is 62 and 60% lower than that of the population average in the case of two or more items, but only 47 and 43% lower in the case of three or more items.
14. Among households with an elderly head, patterns mirror those by age of individuals. Households with a head of retirement age have a deprivation risk always below that of the entire population, even when the elderly person is living alone and not working. Only in Austria, Greece, Poland and Portugal is the share of elderly people living alone reporting two or more deprivations (marginally) above that for the entire population.
15. A number of other patterns stand out from Table 7.A2.1 (available at <http://dx.doi.org/10.1787/424402577838>). First, for a given number of deprivation items, the extent of overlap rises when a higher income threshold is used. For example, among people reporting deprivation in two or more items in OECD countries, 30% have income below 60% of the median, as compared to only 10% when considering those with income below 40% of the median. When considering people deprived in three or more items, the corresponding shares are 37% and 13% respectively. Second, for a given income threshold, the overlap rises when a higher number of items is considered (e.g., in the case of people with income below 60% of the median, from 30% in the case of deprivation in two or more items to 37% in the case of deprivation in three or more items).

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ANNEX 7.A1

Prevalence of Non-income Poverty Based on a Synthetic Measure of Multiple Deprivations

While the data on individuals experiencing different forms of deprivation allow identifying a range of patterns, as described in this chapter, it is more difficult to derive a summary measure of non-income poverty based on the experience of multiple deprivations. This is for both practical and conceptual reasons. While the practical reasons mainly reflect the differences in the wording of survey questions across countries, as already noted, the conceptual reasons relate to two main issues:

- The first is the importance to be attributed to each deprivation item. The basic choice here is between measures that give equal weight to each of the seven deprivation items considered and measures that “weight” each item according to its prevalence among the entire population – i.e. giving greater weight to items that are more common in a given society.
- The second is the choice of the threshold to be used.¹ These thresholds can be based on either an absolute number of deprivation items (e.g. those lacking two or more items) or on some multiple of the typical number of items lacked by the population at large.

As there are no unambiguous answers to these two questions, Table 7.A1.1 shows different summary measures of non-income poverty, as well as income-poverty headcounts (based on different thresholds) drawn from the same surveys.² The first column shows a deprivation rate for unweighted items (i.e. all types of deprivation are equally important), where the number of items above which people is counted as “deprived-poor” varies across countries. This is achieved by setting the threshold at twice the average number of deprivation items that people lack.³ This method implies, in practice, setting a deprivation threshold of two items in most countries, of three in the Czech Republic, Greece, Hungary, Italy, Portugal, Switzerland, the Slovak Republic, Australia, Japan, the United States, and of four in Poland. Based on this measure, around 14% of all people in the OECD countries considered in Table 7.A1.1 experienced multiple deprivations, a rate that is close to the income-poverty headcount based on a 60% threshold. This unweighted summary measure of multiple deprivations was above 20% in Greece, Hungary, Poland and the Slovak Republic, and below 10% in Austria, Denmark, Finland, Luxembourg, the Netherlands, Norway and Sweden. On this measure, the deprivation rate is around half of the income-poverty headcount based on a 60% threshold in Ireland, the United Kingdom, Australia, Japan and the United States, but almost double the headcount in Hungary and the Slovak Republic (Figure 7.A1.1, left-hand panel). The correlation with the income-poverty headcount, while positive, is low.

Table 7.A1.1. **Summary measure of material deprivation and income poverty based on different thresholds**

Based on individual data

	Summary measure of material deprivation				Income-poverty rate		
	Unweighted	Weighted			Threshold set at:		
	Threshold set at:						
	Twice the mean	20%	30%	Twice the mean	60% median	50% median	40% median
<i>European countries</i>							
Austria	9.4	5.3	2.8	4.8	13.4	7.1	3.4
Belgium	15.2	10.8	6.6	8.5	15.6	9.0	3.7
Czech Republic	15.8	29.4	16.4	12.7	11.5	5.8	3.0
Denmark	7.6	8.2	3.3	4.4	11.1	5.5	2.7
Finland	8.9	10.4	4.1	6.5	12.3	5.7	2.3
France	16.4	16.4	8.9	11.0	14.0	7.0	2.8
Germany	12.6	11.0	5.2	7.0	14.2	8.2	3.9
Greece	22.8	32.8	20.6	13.6	19.4	12.2	7.0
Hungary	25.5	35.4	22.9	15.0	13.9	7.8	3.8
Iceland	15.2	16.2	6.9	10.5	12.1	7.0	4.2
Ireland	12.4	11.5	6.7	7.9	21.2	12.5	5.4
Italy	13.7	19.6	12.8	12.8	19.2	12.2	6.9
Luxembourg	9.2	4.8	3.4	4.4	13.1	8.0	3.0
Netherlands	9.8	8.1	4.1	6.4	10.6	6.6	4.2
Norway	8.8	9.2	4.3	5.3	10.1	5.3	3.0
Poland	21.7	43.1	25.5	17.3	22.4	16.9	11.9
Portugal	16.1	18.3	8.5	8.5	21.6	13.9	8.3
Slovak Republic	24.4	35.7	19.0	12.6	13.8	8.2	4.5
Spain	15.7	9.5	4.7	7.1	21.4	14.6	8.8
Sweden	8.1	8.6	3.8	6.0	9.4	5.0	2.8
<i>Non-European countries</i>							
Australia	9.9	12.7	6.4	10.5	20.6	13.6	6.0
Japan	10.6	10.5	4.3	6.8	20.1	15.0	8.7
United States	12.1	22.8	13.9	13.9	23.7	16.5	10.5
<i>Averages</i>							
EU-21	14.5	17.2	9.5	9.1	15.0	8.9	4.8
Non EU-3	10.9	15.3	8.2	10.4	21.4	15.0	8.4
OECD-24	14.0	17.2	9.6	9.4	15.9	9.7	5.3

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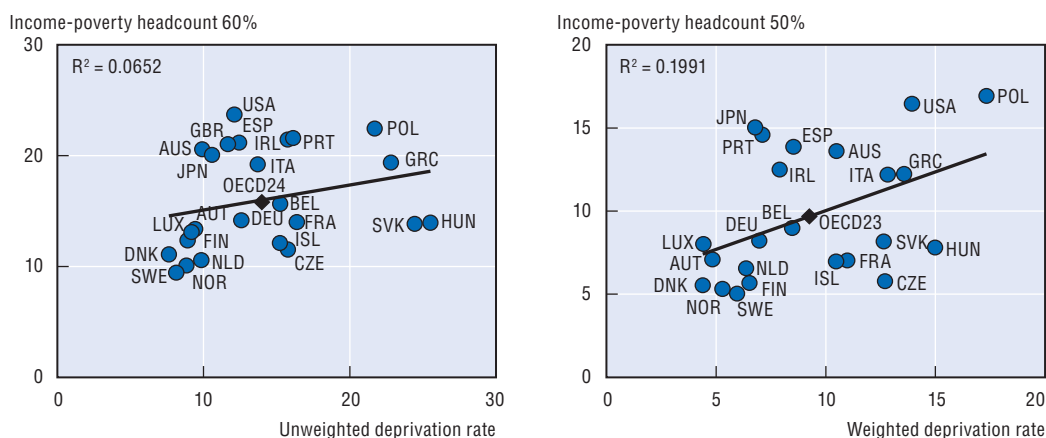
Note: The deprivation rates shown in the first column are based on a threshold set at twice the mean number of items lacked by the population as a whole i.e. twice the difference between the number of items considered (7) and the average number of items held, as shown in Figure 7.2. In practice this threshold is equal to 2 for Austria, Belgium, Germany, Denmark, Spain, Finland, France, Ireland, Iceland, Luxembourg, the Netherlands, Norway, Sweden, the United Kingdom, as well as Japan; to 3 in the Czech Republic, Greece, Hungary, Italy, Portugal, Switzerland and the Slovak Republic, as well as Australia and the United States; and to 4 for Poland.

Source: OECD Secretariat calculation based on different household surveys.

Another way of computing a summary measure of multiple deprivations is by “weighting” each item according to its general prevalence. Weighting has the advantage of converting the discrete “1 to 7” deprivation scale into a continuous scale ranging between 0 (for people not deprived of any of the items considered) to 1 (for those deprived of all items); its disadvantage is that weights are sensitive to outliers.⁴ Annex Table 7.A1.1 shows summary measures of “weighted” deprivation based on three thresholds: 20% and 30% of all items (i.e. a threshold common across countries) and a relative threshold (differing across countries) set at twice the average number of deprivation items experienced by the entire population. On average (across the 22 OECD countries included), the weighted

Figure 7.A1.1. **The relation between a summary measure of material deprivation and income poverty headcounts**

Based on individual data



StatLink  <http://dx.doi.org/10.1787/423021363648>

Source: OECD Secretariat calculation based on different household surveys.

deprivation rate based on a relative threshold is 9%, ranging between values of 12% and over in the Czech Republic, Greece, Hungary, Poland, the Slovak Republic and the United States, and below 5% in Austria, Denmark, and Luxembourg. On average, this summary measure of multiple deprivations is close to the poverty headcount based on a threshold of 50% of median income, but again with large differences across countries. This summary measure of multiple deprivations is well below the poverty headcount in Japan, Luxembourg and Spain, but well above it in the Czech and Slovak Republics, France, Iceland and Hungary (Figure 7.A1.1, left-hand panel). While the correlation between this measure of multiple deprivation and the income-poverty headcount is higher than for the “unweighted” measure, cross-country dispersion remains large.

Notes

1. Townsend (1979) considered individuals with a score equal to or greater than 5 as living in deprivation, and then derived an income threshold corresponding to the level below which “deprivation scores escalated disproportionately”. Most studies of material deprivation use an absolute standard, usually defined by specifying a minimum number of items, and counting people as “poor” when they report deprivation in (at least) these items. Other approaches rely on “relative” thresholds, whereby poverty is defined by the lack of a certain number of items, the level of which is set such that the number of people lacking them is the same as the number of income poor (Layte et al., 2001). This procedure is, however, less useful if the goal is to derive an independent measure of non-income poverty that could be used alongside the income-poverty headcount.
2. The income-poverty headcounts shown in Table 7.A1.1 are very close to these based on the OECD income distribution questionnaire shown in Chapter 5, with a correlation coefficient of 0.88 for a threshold of 50% of median income, and of 91% for one at 60%.
3. This is analogous to using half of median income as the threshold for income poverty. The mean, rather than median, is used here, as the median number of items that people lack is typically zero. This approach implies that if, on average, people have six of the seven items considered (i.e. on average they lack only one item) the threshold is set at two. The number of items “lacked” is conventionally rounded to the greater integer (e.g. if they lack 1.5 items, this is rounded to two).
4. When the share of people in the entire population experiencing deprivation of items is very low, the weight given to other types of deprivation becomes very small (tending to zero). For this reason, “weighted” deprivation rates for the United Kingdom are not shown in Table 7.A1.1.

