

### Key results

For average earners, the net replacement rate across OECD averages 69%, which is 12 percentage points higher than the gross replacement rate. This reflects the higher taxes and contributions that people paid on their earnings when working than they pay on their pensions in retirement. Net replacement rates again vary across a large range, from under 40% in Mexico, Ireland and Japan to well over 100% in Greece for average earners.

For low earners (with half of mean earnings), the average net replacement rate across OECD countries is 83%. For high earners (150% of mean earnings) the average net replacement rate is 63%, lower than for low earners. As with gross replacement rates, the differences with earnings reflect progressive features of pension systems, such as minimum benefits and ceilings on pensionable earnings.

The previous indicator of the “Tax treatment of pensions and pensioners” showed the important role that the personal tax and social security contribution systems play in old-age income support. Pensioners often do not pay social security contributions and receive preferential treatment under the income tax. Progressivity of income taxes coupled with gross replacement rates of less than 100% also mean that pensioners pay less in income tax than workers. As a result, net replacement rates are usually higher than gross replacement rates.

For average earners, the pattern of replacement rates across countries is different on a net rather than a gross basis. For example, the Belgian and German pension systems have considerably higher net replacement rates than gross. This is due, first, to favourable treatment of pension income under social security contributions. Secondly, because replacement rates are relatively low compared with OECD countries and personal income taxes are strongly progressive in these countries, people pay much less in income tax when retired than they did when working. This is despite the fact that the very generous tax treatment of pension income in Germany is gradually being withdrawn.

In contrast, New Zealand and Sweden move lower down the chart on a net basis. This is because these countries tax pension income and earnings at very similar rates (although Sweden re-introduced tax concessions for pensioners in 2009).

For low-earners, the effect of taxes and contributions on net replacement rates is more muted than for workers higher up the earnings scale. This is because low-income workers typically pay less in taxes and contributions than those on average earnings. In many cases, their retirement incomes are below the level of the standard reliefs in the personal income tax

(allowances, credits, etc.). Thus, they are often unable to benefit fully from additional concessions granted to pensions or pensioners under the personal income tax.

The difference between gross and net replacement rates for low earners is 10 percentage points on average. Belgium and Slovenia have much higher replacement rates for low earners measure on a net basis than in gross terms.

The net replacement rate for workers earning 150% of the average is highest in Greece. Not surprisingly, the lowest replacement rates are found in the flat-rate pension systems of New Zealand and Ireland. In both countries, workers earning 150% of the average will receive pensions that amount to less than a third of their net earnings when working.

For non-OECD countries, there is very little variation in net replacement rates within countries across the earnings range. However, there is considerable difference between countries, ranging from 12% for average earners in South Africa to 108% in Saudi Arabia. As with the gross rates, the EU27 average net rate for average earners at 74% is markedly higher than the OECD34 figure.

### Definition and measurement

The net replacement rate is defined as the individual net pension entitlement divided by net pre-retirement earnings, taking account of personal income taxes and social security contributions paid by workers and pensioners. Otherwise, the definition and measurement of the net replacement rates are the same as for the gross replacement rate (see the previous indicator).

Details of the rules that national tax systems apply to pensioners can be found in the online country profiles at [www.oecd.org/els/pensions/PAG](http://www.oecd.org/els/pensions/PAG).

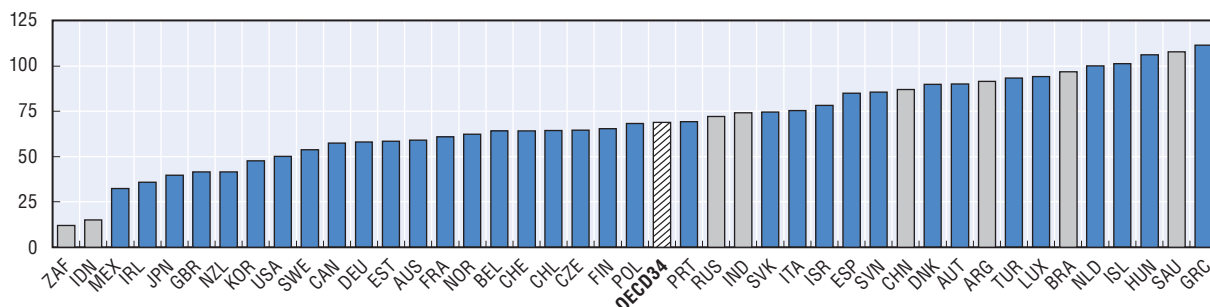
### Net pension replacement rates by earnings

	Individual earnings, multiple of mean for men (women where different)				Individual earnings, multiple of mean for men (women where different)				
	Median earner	0.5	1	1.5	Median earner	0.5	1	1.5	
<b>OECD members</b>									
Australia	65.9 (63.2)	82.5 (79.7)	58.9 (56.9)	47.1 (45.3)	Norway	62.3	81.7	62.2	51.4
Austria	89.9	91.3	89.9	84.6	Poland	68.2 (50.7)	68.1 (53.4)	68.2 (50.6)	68.3 (50.4)
Belgium	66.0	81.8	64.1	52.0	Portugal	65.5	73.4	69.2	70.5
Canada	61.5	88.7	57.3	39.7	Slovak Republic	72.9	68.3	74.5	76.7
Chile	66.0 (52.4)	74.4 (61.7)	64.3 (49.9)	62.7 (46.3)	Slovenia	90.2	82.5	85.4	86.2
Czech Republic	72.5	94.0	64.4	48.9	Spain	84.5	82.3	84.9	85.4
Denmark	94.5	131.9	89.8	80.8	Sweden	53.3	67.0	53.6	72.6
Estonia	63.1	73.4	58.3	51.4	Switzerland	66.4 (65.5)	78.6 (78.1)	64.1 (63.2)	46.2 (45.5)
Finland	64.8	72.0	65.2	64.4	Turkey	98.0	107.3	93.1	96.0
France	60.8	69.4	60.4	53.1	United Kingdom	48.0	67.5	41.5	30.5
Germany	58.4	55.6	57.9	57.2	United States	53.4	63.8	50.0	46.6
Greece	110.3	113.6	111.2	106.8	<b>OECD34</b>	<b>72.0</b>	<b>82.8</b>	<b>68.8</b>	<b>63.4</b>
Hungary	99.5	96.3	106.0	103.2	<b>Other major economies</b>				
Iceland	111.7	139.0	101.1	91.7	Argentina	94.7 (86.2)	106.0 (97.5)	91.3 (82.8)	87.8 (79.1)
Ireland	40.8	60.8	35.8	26.8	Brazil	96.6	96.6	96.6	98.9
Israel	92.2 (82.3)	103.0 (93.6)	78.2 (69.8)	56.7 (50.6)	China	90.6 (71.5)	106.4 (85.3)	86.8 (69.2)	80.1 (64.7)
Italy	76.2 (63)	78.2 (63.4)	75.3 (62.1)	76.7 (62.1)	India	82.3 (77.8)	108.2 (103.3)	74.1 (69.8)	63.9 (58.8)
Japan	41.4	52.7	39.7	34.9	Indonesia	14.8 (13.1)	14.7 (13)	14.9 (13.2)	14.9 (13.2)
Korea	51.8	69.8	47.5	37.3	Russian Federation	74.8 (66.6)	83.9 (75.7)	72.0 (63.8)	68.0 (59.8)
Luxembourg	96.2	103.1	94.0	90.9	Saudi Arabia	107.4 (95.1)	107.2 (94.8)	107.6 (95.2)	108.0 (95.7)
Mexico	46.9 (46.9)	58.2 (58.2)	32.2 (29.9)	33.3 (29.7)	South Africa	14.4	22.0	11.9	8.3
Netherlands	103.3	104.5	99.8	96.4	EU27	75.7 (73.6)	81.8 (79.7)	74.2 (72.1)	70.6 (68.4)
New Zealand	49.6	79.4	41.5	29.4					

Source: OECD pension models.

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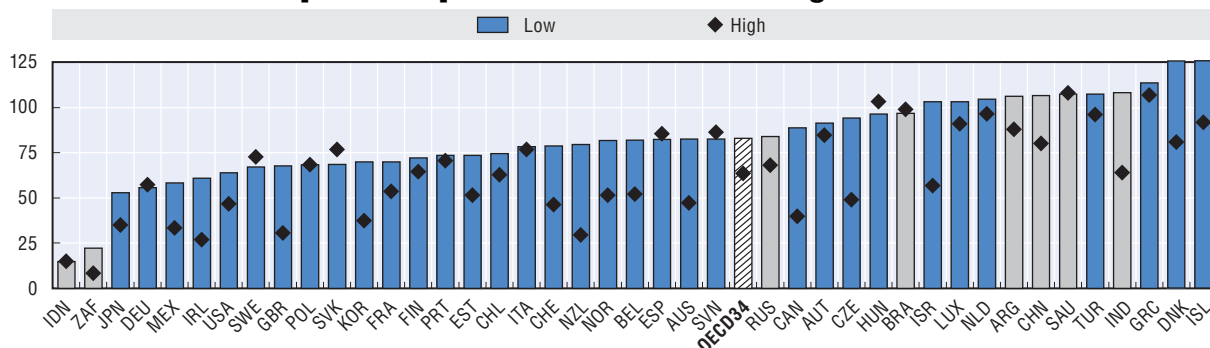
### Net pension replacement rates: Average earners



Source: OECD pension models.

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### Net pension replacement rates: Low and high earners



Source: OECD pension models.

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