

Key results

The gross replacement rate shows the level of pensions in retirement relative to earnings when working. For workers with average earnings, the gross replacement rate averages 54% in the 34 OECD countries. But there is significant cross-country variation. At the bottom of the range, Mexico and the United Kingdom offer future replacement rates of less than a third to people starting work today. The Netherlands at the top of the range, offer replacement rates of more than 90%. Other countries with high projected replacement rates are Denmark at 79% and Austria at 77%.

Most OECD countries protect low-income workers from old-age poverty by providing higher replacement rates for them than for average earners. For example, workers earning only half the average receive replacement rates averaging around 71%, compared with 54% for average earners. However, replacement rates in five countries are the same at average and half-average pay: Austria, Germany, Hungary, Italy, and Spain.

At the top of the range, there are two countries that provide low earners with pensions equal to or higher than their earnings when working: Denmark (replacement rate of 121%) and Israel (104%). At the other end of the scale, Germany and Poland offer replacement rates at 42% and 49%, respectively. Some countries, such as Ireland and New Zealand, pay relatively small benefits to average earners, but are above the average for low-income workers.

On average in the 34 OECD countries, the gross replacement rate at 1.5 times average earnings (here called “high earnings”) is 48%, somewhat below the 54% figure for average earners. For high earners, country variations are again wide. Replacement rates equal 89% in the Netherlands. At the other end of the spectrum, Ireland and the United Kingdom offer replacement rates of less than 25%.

At median earnings – the level which half of workers lie above and half below – the average gross replacement for the 34 OECD countries is 58%. In general, it is little different from the gross replacement at average (mean) pay. (Median earnings are between 55% and 96% of the mean; see in Chapter 7 the indicator on “Earnings: Averages and distribution”).

Gross pension replacement rates for women differ (due to a lower pension eligibility age for women than for men and to the use of sex specific mortality)

in five countries: Australia, Chile, Israel, Mexico and Switzerland. Differences between the sexes are substantial in Australia, Chile and Israel, with replacement rates for women between 79% and 92% of the value for men. In Switzerland, replacement rates for women are 98% of that for men. The value for women is also lower in Mexico around 97%, but this is due to a higher annuity rate rather than a difference in retirement age.

For the non-OECD countries there is a wide range in the replacement rate calculations, with Indonesia around 14% and Saudi Arabia at 100% for average earners. The average for the EU27 is higher than that of the OECD34 for average and high earners.

Definition and measurement


The old-age pension replacement rate measures how effectively a pension system provides a retirement income to replace earnings, the main source of income before retirement. The gross replacement rate is defined as gross pension entitlement divided by gross pre-retirement earnings.

Often, the replacement rate is expressed as the ratio of the pension to final earnings (just before retirement). Here, however, pension benefits are shown as a share of individual lifetime average earnings (revalued in line with economy-wide earnings growth). Under the baseline assumptions, workers earn the same percentage of average worker earnings throughout their career. In this case, lifetime average revalued earnings and individual final earnings are identical. If people move up the earnings distribution as they get older, then their earnings just before retirement will be higher than they were on average over their lifetime and replacement rates calculated on individual final earnings would be lower.

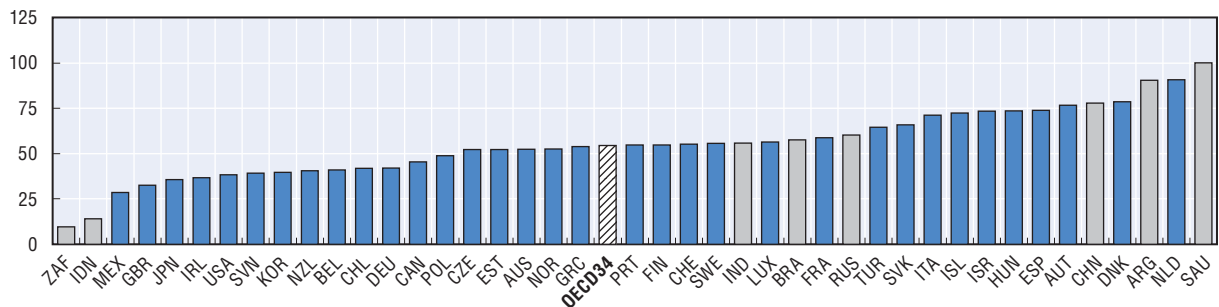
4.1. Gross pension replacement rates by earnings

Individual earnings, multiple of mean for men (women where different)									
	Median earner	0.5	1.0	1.5		Median earner	0.5	1.0	1.5
OECD members					OECD members (cont.)				
Australia	60.2 (55.8)	91.1 (86.6)	52.3 (47.8)	39.4 (34.9)	Norway	52.3	63.4	52.5	41.6
Austria	76.6	76.6	76.6	74.0	Poland	48.8	49.3	48.8	48.8
Belgium	41.4	58.2	41.0	30.2	Portugal	55.0	67.5	54.7	54.1
Canada	51.0	80.1	45.4	30.2	Slovak Republic	67.9	74.2	65.9	63.4
Chile	45.5 (36.6)	57.3 (48.3)	41.9 (33)	37.3 (27.9)	Slovenia	40.6	62.0	39.2	36.7
Czech Republic	59.9	85.2	52.2	41.2	Spain	73.9	73.9	73.9	73.9
Denmark	83.7	120.7	78.5	64.4	Sweden	55.6	70.2	55.6	67.9
Estonia	55.3	65.2	52.2	47.9	Switzerland	58.4 (57.6)	64.3 (63.7)	55.2 (54.3)	36.8 (36.2)
Finland	54.8	64.1	54.8	54.8	Turkey	66.8	73.5	64.5	64.5
France	59.1	64.8	58.8	47.5	United Kingdom	37.9	55.8	32.6	22.5
Germany	42.0	42.0	42.0	42.0	United States	41.0	49.5	38.3	33.4
Greece	64.0	75.4	53.9	46.7	OECD34	57.9 (57.2)	71.0 (70.3)	54.4 (53.7)	48.4 (47.7)
Hungary	73.6	73.6	73.6	73.6	Other major economies				
Iceland	73.8	91.7	72.3	70.1	Argentina	96.2 (88.9)	115.2 (107.9)	90.4 (83.1)	82.1 (74.8)
Ireland	44.2	73.4	36.7	24.5	Brazil	57.5 (52.3)	55.4 (50.3)	57.5 (52.3)	61.7 (56.1)
Israel	86.7 (76.8)	103.7 (93.9)	73.4 (64.8)	48.9 (43.2)	China	82.5 (65.1)	97.9 (78.5)	77.9 (61)	71.2 (55.2)
Italy	71.2	71.2	71.2	71.2	India	60.4 (56.3)	75.6 (71.2)	55.8 (51.8)	49.2 (45.3)
Japan	37.5	49.8	35.6	30.8	Indonesia	14.1 (13)	14.1 (13)	14.1 (13)	14.1 (13)
Korea	43.9	59.2	39.6	29.2	Russian Federation	63.0 (56.4)	72.4 (65.8)	60.2 (53.6)	56.1 (49.5)
Luxembourg	59.3	77.7	56.4	53.0	Saudi Arabia	100.0 (87.5)	100.0 (87.5)	100.0 (87.5)	100.0 (87.5)
Mexico	44.7	55.5	28.5 (27.7)	27.2 (25.1)	South Africa	11.8	19.1	9.6	6.4
Netherlands	91.4	94.4	90.7	89.4	EU27	60.0 (59.7)	69.6 (69.3)	58.0 (57.7)	53.3 (53.1)
New Zealand	50.1	81.1	40.6	27.0					


Source: OECD pension models.

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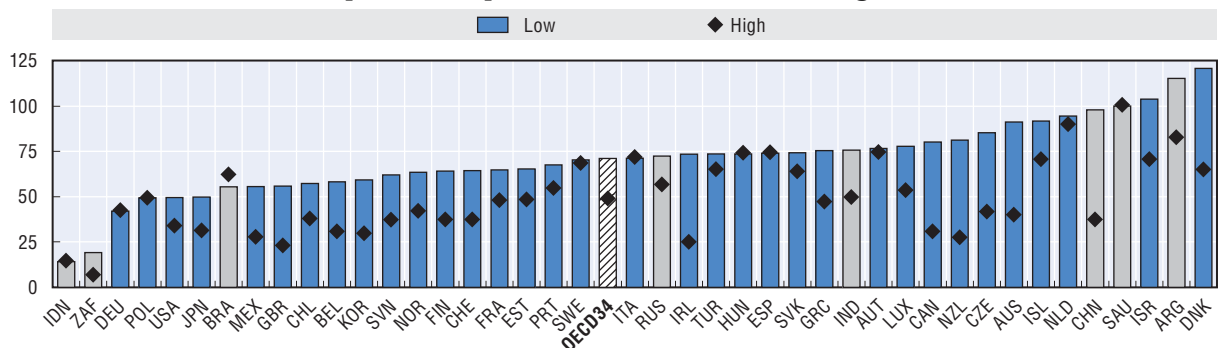
4.2. Gross pension replacement rates: Average earners




Source: OECD pension models.

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4.3. Gross pension replacement rates: Low and high earners



Source: OECD pension models.

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