

### Key results

The future gross replacement rate shows the level of pension benefits in retirement from mandatory public and private pension schemes relative to earnings when working. For workers with average worker earnings (AW), the future gross replacement rate averages 53% for both men and women in the 34 OECD countries, with substantial cross-country variation. At the bottom of the range, Mexico and the United Kingdom offer future replacement rates of around 20-25% of average earnings to people starting work today. The Netherlands, at the top of the range, offers replacement rates of slightly more than 90%.

Most OECD countries protect low-income workers (here defined as workers earning half of average worker earnings) from old-age poverty by providing higher replacement rates for them than for average worker earners. Low-income workers would receive gross replacement rates averaging around 65%, compared with 53% for average-wage workers. However, projected replacement rates in nine countries are the same at average and half-average pay: Austria, Finland, Germany, Hungary, Italy, Poland, Spain, Sweden and Turkey.

At the top of the range, low earners in Denmark receive a replacement rate of 107%: retirement benefits are thus higher than their earnings when working. At the other end of the scale, Mexico offers replacement rates of 35% to low-income earners. Some countries, such as Ireland, pay relatively small benefits to average earners, but are closer to 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 53% figure for average earners. Replacement rates equal 89% in the Netherlands, while at the other end of the spectrum, the United Kingdom offers a replacement rate of around 15%.

Gross pension replacement rates differ for women (due to a lower pension eligibility age for women than for men and the use of sex specific mortality rates to compute annuities or due to gender specific accrual rates) in six countries: Australia, Chile, Israel, Mexico, Slovenia and Switzerland. Differences between the sexes are substantial in Australia, Chile and Israel, with replacement rates for women between 88% and 95% of the value for men. In Slovenia the replacement rates for women are 105% of that for men due to a higher accrual rate for women. This

difference is being phased out by 2023. For the non-OECD countries there is a wide range in the replacement rate calculations, with South Africa around 11% and India at 97% for average earners.

Gross pension replacement rates fall with age from 53% on average at the time of retirement across all OECD countries to 46% at age of 80. This difference is due to the indexation of pension benefits in payment, which do not follow wages in many countries. Austria, Spain, Sweden and Turkey have the biggest drop around 13-14 percentage points between the retirement age and age 80. Countries where the indexation of pension benefits follow wages have the same replacement rate at age 80.

### 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. 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.

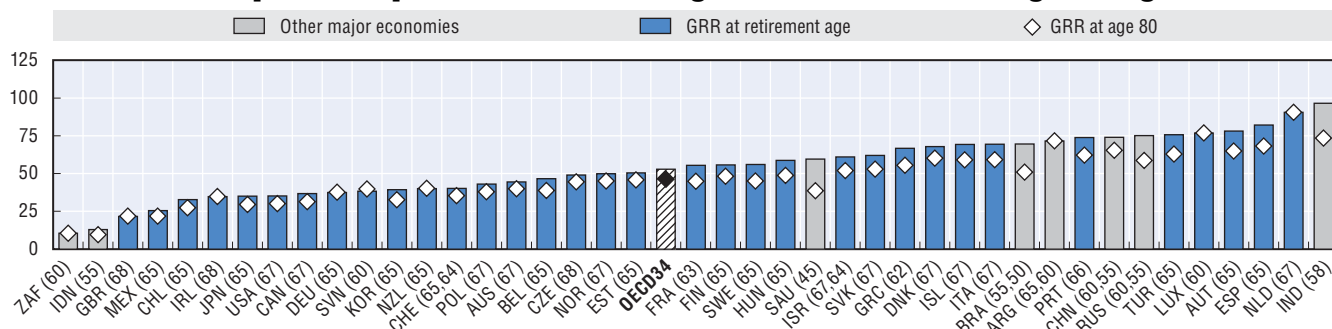
## 6.1. Gross pension replacement rates by earnings

	Individual earnings, multiple of mean for men (women where different)				Individual earnings, multiple of mean for men (women where different)				
	Pension age	0.5	1.0	1.5	Pension age	0.5	1.0	1.5	
<b>OECD members</b>					<b>OECD members (cont.)</b>				
Australia	67	79.3 (75.7)	44.5 (40.9)	32.9 (29.3)	Norway	67	62.8	49.8	38.9
Austria	65	78.1	78.1	77.6	Poland	67	43.1	43.1	43.1
Belgium	65	47.6	46.6	35.3	Portugal	66	75.1	73.8	72.5
Canada	67	50.1	36.7	25.1	Slovak Republic	67	70.4	62.1	59.3
Chile	65	39.4 (36.7)	32.8 (28.8)	32.9 (28.9)	Slovenia	60	44.4 (46.8)	38.4 (40.4)	36.0 (37.9)
Czech Republic	68	78.9	49.0	39.1	Spain	65	82.1	82.1	82.1
Denmark	67	107.4	67.8	55.1	Sweden	65	56.0	56.0	65.2
Estonia	65	62.1	50.5	46.6	Switzerland	65 (64)	55.7 (55.1)	40.2 (39.9)	26.8 (26.6)
Finland	65	55.8	55.8	55.8	Turkey	65	75.7	75.7	75.7
France	63	56.8	55.4	48.2	United Kingdom	68	43.3	21.6	14.4
Germany	65	37.5	37.5	37.5	United States	67	44.4	35.2	29.1
Greece	62	79.4	66.7	62.3	<b>OECD34</b>	<b>65.5 (65.4)</b>	<b>64.5 (64.2)</b>	<b>52.9 (52.5)</b>	<b>47.8 (47.4)</b>
Hungary	65	58.7	58.7	58.7	<b>Other major economies</b>				
Iceland	67	82.6	69.2	68.1	Argentina	65 (60)	81.8 (88.2)	71.6 (71.5)	68.3 (65.9)
Ireland	68	69.5	34.7	23.2	Brazil	55 (50)	97.5	69.5 (52.9)	62.5 (52.9)
Israel	67 (64)	82.7 (74.7)	61.0 (54.1)	40.7 (36.0)	China	60 (55)	94.0 (86.5)	74.0 (69.0)	67.4 (63.2)
Italy	67	69.5	69.5	69.5	India	58	96.5 (91.3)	96.5 (91.3)	96.5 (91.3)
Japan	65	48.8	35.1	30.5	Indonesia	55	13.0 (11.8)	13.0 (11.8)	13.0 (11.8)
Korea	65	58.5	39.3	29.3	Russian Federation	60 (55)	75.2 (64.1)	75.2 (64.1)	75.2 (64.1)
Luxembourg	60	89.5	76.8	72.5	Saudi Arabia	45	59.6	59.6	59.6
Mexico	65	35.0	25.5 (23.6)	24.2 (22.4)	South Africa	60	20.9	10.5	7.0
Netherlands	67	94.0	90.5	89.3	EU28	65.2 (65)	69.9 (69.7)	59.0 (58.8)	54.4 (54.2)
New Zealand	65	80.1	40.1	26.7					


Source: OECD pension models.

StatLink  <http://dx.doi.org/10.1787/888933301102>

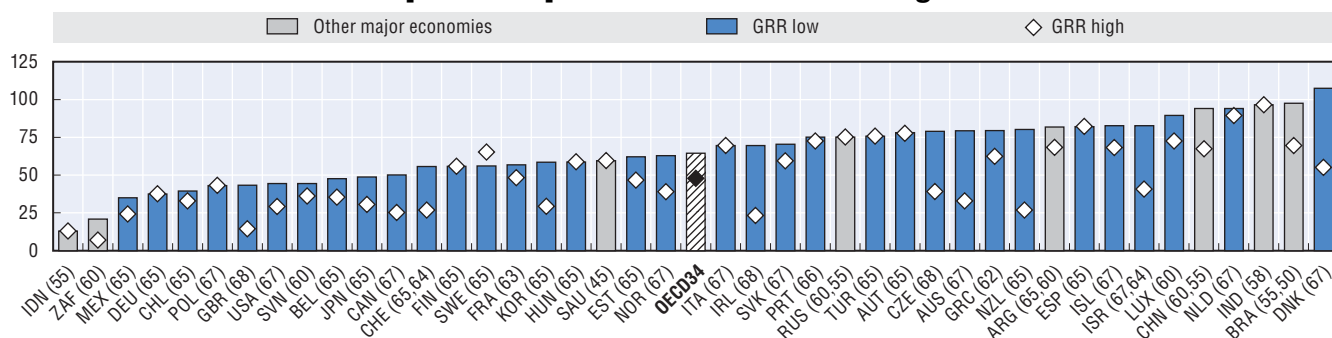
## 6.2. Gross pension replacement rates: Average earners at retirement age and age 80




Source: OECD pension models.

StatLink  <http://dx.doi.org/10.1787/888933300676>

## 6.3. Gross pension replacement rates: Low and high earners



Source: OECD pension models.

StatLink  <http://dx.doi.org/10.1787/888933300687>



**From:**  
**Pensions at a Glance 2015**  
OECD and G20 indicators

**Access the complete publication at:**  
[https://doi.org/10.1787/pension\\_glance-2015-en](https://doi.org/10.1787/pension_glance-2015-en)

**Please cite this chapter as:**

OECD (2015), "Gross pension replacement rates", in *Pensions at a Glance 2015: OECD and G20 indicators*, OECD Publishing, Paris.

DOI: [https://doi.org/10.1787/pension\\_glance-2015-14-en](https://doi.org/10.1787/pension_glance-2015-14-en)

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).