Key results

Whilst the gross replacement rate gives a clear indication of the design of the pension system, the net replacement matters more to individuals, as it reflects their disposable income in retirement in comparison to when working. For average earners with a full career, the net replacement rate from mandatory pension schemes at the normal retirement age averages 62.4% across the OECD, which is 10.6 percentage points higher than the average gross replacement rate. This reflects the higher effective tax and social contribution rates that people pay on their earnings than on their pensions in retirement, mostly due to the progressivity of tax systems, some tax advantages to pensions and lower social contributions on pension benefits. Net replacement rates vary across a large range, from under 35% in Estonia and Lithuania to 90% or more in Hungary, Portugal and Turkey for average-wage workers. For low earners (with half of average worker earnings), the average net replacement rate across OECD countries is 74.4% while it is 54.9% for high earners (200% of average worker 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 only pay health contributions and receive preferential treatment under the income tax. Tax expenditures and the progressivity of income taxes coupled with gross replacement rates of less than 100% also mean that pensioners have a lower income tax rate than workers. As a result, net replacement rates are generally higher than gross replacement rates.

For average earners, the net replacement rate across the OECD averages 62% for mandatory schemes, from a low of under 35% in Estonia and Lithuania to a high of 103% in Turkey and over 90% in Hungary and Portugal. Moreover, the pattern of replacement rates across countries is different on a net rather than a gross basis.

On average, for average earners, the net replacement rate is 10 percentage points higher than the gross replacement rate. The difference is 30 percentage points in Hungary and Turkey and around 15-25 percentage points in Belgium, the Czech Republic, the Netherlands, Portugal, the Slovak Republic and Slovenia. In Hungary, the Slovak Republic and Turkey, pension income is neither liable for taxes or social security contributions, whilst in Belgium and Portugal they are much lower because of either higher tax allowances or much lower contribution levels.

For low earners, the effect of taxes and contributions on net replacement rates is slightly more muted than for workers higher up the earnings scale. This is because low-income workers typically pay less in taxes and contributions relative to average earners. 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 any additional concessions granted to pensions or pensioners under their personal income tax.

The difference between gross and net replacement rates for low earners is 10 percentage points on average. The Czech Republic, Germany, Hungary, Slovenia and Turkey have much higher replacement rates for low earners on a net basis than in gross terms. The net replacement rate for workers earning 200% of the average is highest in Turkey. The lowest replacement rates for high earners are found in Canada, Estonia, Ireland, Israel, Japan, Korea, Lithuania, New Zealand and Switzerland where workers earning 200% of the average will receive net pensions that amount to less than one-third of their net earnings when working. In addition to the higher contribution levels in the occupational system for higher earners in Sweden, the net replacement rates are furthermore affected by the fact that pension income and work income are taxed differently and at different rates.

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 16% for average earners in South Africa to 97% in Brazil.

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. Details of the rules that national tax systems apply to pensioners can be found in the online Country Profiles available at *http://oe.cd/pag*.

Table 4.4. **Net pension replacement rates by earnings, percentage**

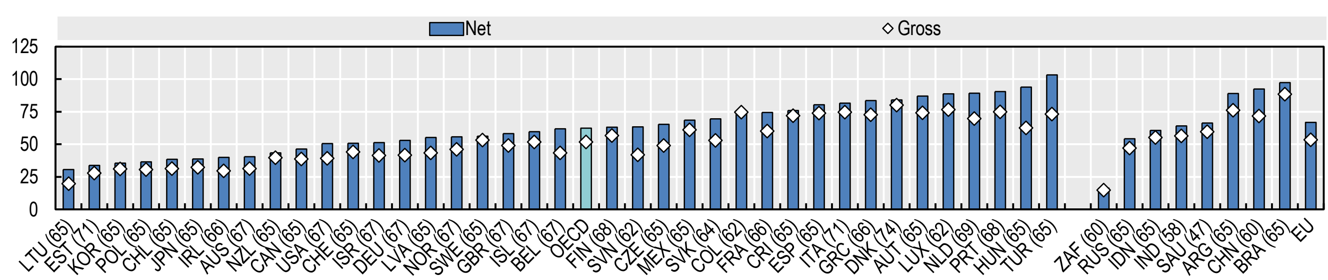
Individual earnings, multiple of mean for men (women where different)

	Pension age		0.5		1		2			Pension age		0.5		1.0		2	
Australia	67		70.3	*(67.1)*	40.5	*(36.8)*	39.1	*(36.4)*	Netherlands	69		94.3		89.2		87.0	
Austria	65		84.4		87.1		67.6		New Zealand*	65		68.0		43.3		23.7	
Belgium	67		83.0		61.9		43.9		Norway	67		76.3		55.7		36.2	
Canada	65		62.0		46.4		28.4		Poland	65	*(60)*	39.1	*(39.3)*	36.5	*(28.2)*	36.8	*(28.1)*
Chile	65		51.6	*(49.8)*	38.5	*(35.4)*	36.6	*(33.7)*	Portugal	68		88.5		90.3		89.7	
Colombia*	62	*(57)*	104.3		73.1	*(71.8)*	71.5	*(69.3)*	Slovak Republic*	64		76.2		69.4		64.3	
Costa Rica	65		77.3		76.0		73.2		Slovenia*	62		87.3		63.3		59.2	
Czech Republic	65		100.0		65.2		45.7		Spain	65		80.1		80.3		74.7	
Denmark	74		124.7		84.0		71.4		Sweden	65		65.1		56.2		75.3	
Estonia	71		52.0		33.7		23.5		Switzerland	65	*(64)*	57.8	*(57.0)*	50.7	*(49.7)*	27.9	*(27.4)*
Finland	68		63.8		63.2		64.3		Turkey	65	*(63)*	94.8	*(90.9)*	103.3	*(99.1)*	110.8	*(106.3)*
France	66		71.3		74.4		64.5		United Kingdom	67		79.2		58.1		47.7	
Germany	67		57.9		52.9		41.9		United States	67		61.0		50.5		39.0	
Greece	66		94.1		83.6		77.5		***OECD***	**66.1**	***(65.5)***	**74.4**	***(73.7)***	**62.4**	***(61.3)***	**54.9**	***(54.0)***
Hungary	65	*(62)*	94.0	*(87.4)*	94.0	*(87.4)*	94.0	*(87.4)*									
Iceland	67		81.3		59.7		59.9										
Ireland	66		67.5		39.9		24.0		Argentina	65	*(60)*	114.1	*(106.9)*	88.9	*(85.3)*	86.5	*(84.4)*
Israel	67	*(62)*	67.0	*(56.3)*	51.2	*(42.1)*	29.6	*(24.3)*	Brazil	65	*(62)*	95.7	*(101.0)*	97.3	*(102.7)*	102.3	*(109.3)*
Italy	71		78.4		81.7		84.6		China	60	*(55)*	114.9	*(91.8)*	92.4	*(72.3)*	81.0	*(63.0)*
Japan	65		49.5		38.7		31.6		India	58		64.0	*(63.1)*	64.0	*(63.1)*	43.0	*(42.1)*
Korea	65		45.8		35.4		22.5		Indonesia	65		60.6	*(58.1)*	60.6	*(58.1)*	60.6	*(58.2)*
Latvia	65		55.4		55.3		52.9		Russian Federation	65	*(60)*	65.4	*(61.9)*	54.2	*(49.9)*	48.6	*(44.0)*
Lithuania	65		44.0		30.7		22.8		Saudi Arabia	47		66.2		66.2		66.2	
Luxembourg	62		98.9		88.7		80.2		South Africa	60		29.8		16.2		8.8	
Mexico	65		82.0		68.6	*(65.2)*	64.3	*(60.6)*	EU27	66.1	*(65.9)*	75.7	*(75.3)*	66.7	*(66.0)*	60.8	*(60.1*

Note: * Low earners in Colombia, New Zealand, the Slovak Republic and Slovenia are at 66%, 60%, 53% and 55% of average earnings, respectively, to account for the minimum wage level. Due to a change in methodology, the Korean replacement rates are lower than in previous editions (see country profile at *http://oe.cd/pag*).
Source: OECD pension models.

StatLink https://stat.link/cofr31

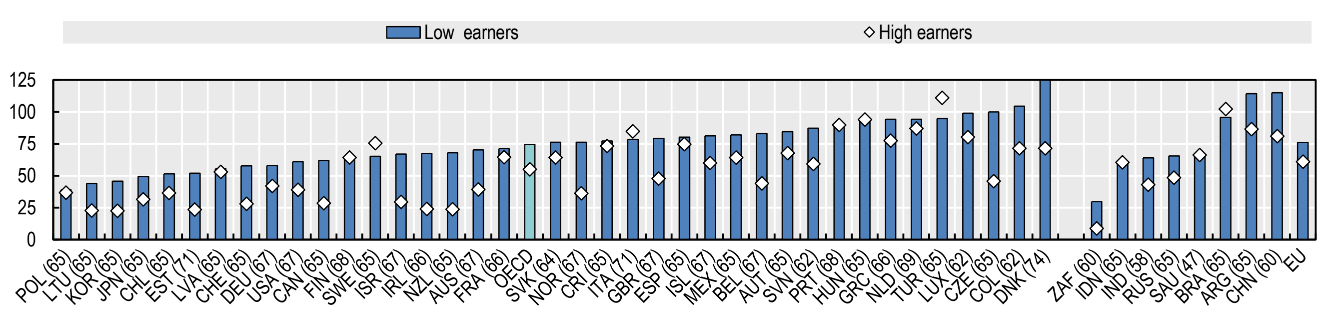
Figure 4.4. **Net pension replacement rates: Average earners, percentage**



Source: OECD pension models.

StatLink https://stat.link/35c4tz

Figure 4.5. **Net pension replacement rates: Low and high earners, percentage**



Source: OECD pension models.

StatLink https://stat.link/oher2v

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