Net Replacement Rates

The influence of the welfare system on reservation wages can be represented and quantified by the net replacement rate (NRR) defined as:

$$NRR = \frac{\text{Benefit income when unemployed – tax on benefit income}}{\text{Earned income + benefit income when employed – tax on earnings and benefits.}}$$

The net replacement rate is the fraction of current or potential income which the social system provides to a person if he or she does not work. It varies according to the type of household, employee, sector of industry, wage and salary group and the reasons for not working.

The Table shows the net replacement rates for an average production worker in the initial phase of unemployment and in the 60th month of benefit receipt in the year 2002. It demonstrates that – in practically all countries – the net replacement rate at the beginning of unemployment is relatively high for a couple with two children but lower for someone who is single. Hence, the bread-winner has little incentive to seek regular work. This is all the more true if the (participating) spouse is long-term unemployed. There are, of course, differences in the net replacement rate from one country to another. The net replacement rates for long-term benefit recipients are lowest in Italy, Greece and the United States and highest in the Scandinavian countries (except Norway), Slovak Republic, Netherlands, Austria and Germany.

The difference of the net replacement rates for singles between the first and the 60th month of benefit receipt is illustrated in the Figure. A small difference has a high impact on long term unemployment, whereas a large difference has the opposite effect. The difference is highest in Portugal, the United States, Greece, Spain and Canada.

Net replacement rates by family type at the APW level [a)], 2002

	Initial phase of unemployment[b)]		Long-term unemployment[c)]	
	Single person	Couple[d)] 2 children	Single person	Couple[d)] 2 children
Australia	32	66	32	66
Austria	55	73	51	78
Belgium	66	61	55	61
Canada	64	76	22	59
Czech Republic	50	54	31	71
Denmark	59	76	50	78
Finland	64	82	51	85
France	71	76	41	70
Germany	61	78	61	68
Greece	46	50	0	3
Hungary	44	54	24	30
Ireland	29	55	51	73
Italy	52	60	0	0
Japan	63	61	34	71
Netherlands	71	78	58	72
New Zealand	37	67	37	67
Norway	66	73	42	64
Poland	44	51	30	73
Portugal	78	77	24	61
Slovak Republic	62	72	42	91
Spain	70	75	27	41
Sweden	81	83	51	78
Switzerland	72	82	51	71
United Kingdom	45	46	45	73
United States	56	53	7	41

[a)] APW: Average production worker. – [b)] In the initial phase of unemployment but following any waiting period; after tax and including unemployment benefits, family, and housing benefits; no social assistance "top ups" are assumed to be available in either the in-work or out-of-work situation. – [c)] After tax and including unemployment benefits, social assistance, family and housing benefits in the 60th month of benefit receipt. – [d)] One earner married couple.

Source: OECD, Benefits and Wages, OECD Indicators 2004, Paris 2004, pp. 95 and 98.

The replacement rate can be explained by the intended insurance function. However, a replacement rate also defines a minimum reservation wage, below which no one is willing to accept a job. In fact, for most people the minimum reservation wage may be even higher than that: When they decide to work they not only require a compensation for the lost special benefits but also for the time lost for leisure and for working at home or even for the loss of black market income. The higher the replacement rate, the better is the insurance protection, but the lower is the number of jobs which employers are willing to provide, given the skill distribution of the unemployed.

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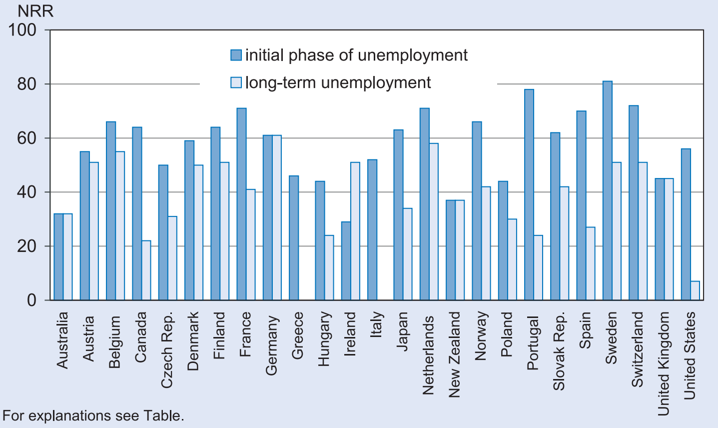
Reference

OECD, Benefit and Wages, OECD Indicators 2004, Paris 2004.

NET REPLACEMENT RATES FOR SINGLES AT THE APW LEVEL, 2002



For explanations see Table.

Source: OECD, Benefit and Wages, OECD Indicators 2004, Paris 2004, pp. 95 and 98.