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Compare your income – Methodology and conceptual issues

There are a number of conceptual issues to take into account when trying to define how rich or poor someone is relative to the rest of the population. To help you better understand our methodology, here are some of the questions we considered when building ***Compare your income***.

Where do the data come from?

The tool is built with the most recent data from the (oe.cd/idd) as well as data from the *Pew Research Center's Global Indicators Database* (http://www.pewglobal.org/database/) for the questions related to perceptions of social mobility.

Data on the actual distribution of income are drawn from the *OECD Income Distribution Database*. This database is based on national sources (household surveys and administrative records) and on common definitions, classifications and data-treatments. The method of data collection used for the *OECD Income Distribution Database* aims to maximise international comparability as well as inter-temporal consistency of data. This is achieved by a common set of protocols and statistical conventions (e.g. on income concepts and components) to derive comparable estimates. Due to the increasing importance of income inequality and poverty issues in policy discussion, the database is now updated on a rolling basis, adding new data as and when received and validated. The OECD has recently extended its database to a number of other key partner countries and emerging economies, including Brazil, China, Costa Rica and South Africa.

The *Pew Research Center* survey data on perceptions of social mobility comes from two cross-national surveys conducted independently. The wording of the first question was "When children today in (survey country) grow up, do you think they will be better off or worse off financially than their parents?" Respondents could also volunteer the response "the same." The wording of the second question was "Compared to your parents when they were the same age as you are now, do you think your own standard of living now is much better, somewhat better, about the same, somewhat worse, or much worse than theirs was?" *Pew Research Center* does not take policy positions, and the language on this website does not represent the views of *Pew Research Center*. To find out more about *Pew Research Center* methodology for conducting surveys, please see www.pewresearch.org/methods.

How is income defined and why do we consider net income?

The definition of income used here refers mainly to cash income – excluding components such as imputed rents – regularly received over the year. Net income is defined as total market income (i.e. gross earnings, self-employment income, capital income), *plus* the current transfers received, *less* the taxes and social security contributions paid. This is the income that people have available to buy goods and services, so it is a better measure of material living standards than pre-tax income or some measure of earnings alone.

Why is income measured at the level of the household?

The welfare of an individual in a household will depend not only upon their own income, but also on that of other household members. By measuring income at the household level, we are implicitly assuming that all individuals within the household are equally well off and therefore occupy the same position in the income distribution. In practice that might not be true, but it is the least arbitrary assumption that we can make based on the available data.

The *OECD Income Distribution Database* provides information on the *equivalised* disposable (i.e. net) income. 'Equivalising' means adjusting a household's income for its size, so that we can look at the income of all households on a comparable basis. The needs of a household grow with each additional member but – due to economies of scale in consumption– not in a proportional way. Needs for housing space, electricity, etc. will not be four times as high for a household with four members than for a single person. With the help of equivalence scales each household is assigned a value in proportion to its needs. The equivalence scale used in the *OECD Income Distribution Database* divides household income by the square root of the household size. This implies that, for instance, a household of four persons has needs twice as large as one composed of a single person.

To bring back data at the household level, we then multiply income statistics available in the *OECD Income Distribution Database* by the square root of the household size. For instance, in the case of a household consisting of a couple with two children, we multiply the income data from the *OECD Income Distribution Database* by two (i.e. square root of four).

How is the poverty line computed?

We compute the income needed to be considered non-poor as half the median income of households of the same size of the respondent's. The median income is the income that divides the income distribution into two equal groups, half having income above that amount, and half having income below that amount.

Data on median income come from the *OECD Income Distribution Database*.

How are 'income diagrams' computed?

In order to further compare the perceived inequality in a society with the actual distribution of income, we divide the population into seven income classes. The 'lower-income' class (lowest bar) covers all individuals with a net income below 50% of median income of the total population. Therefore, the demarcation of the lowest group is equal to the definition of poverty used in this tool. The 'average-income' class covers all individuals with a net income between 50 and 150% of the median income and spans three bars: from 50 to 80% of the median income; from 80 to 110% of the median income; and from 110 to 150% of median income. Similarly, the 'higher-income' class identify all individuals with a net income above 150% of the median income and covers the three highest bars of the diagrams: from 150 to 200% of the median income; from 200 to 250% of the median income and above 250% of the median income.

Obviously, the demarcation of classes remains somewhat arbitrary. However, the demarcation of single groups is not the focus of our analysis. The intention of the definition of these income classes is basically the graphical illustration of the density function of incomes.

Drawing such income diagrams requires information on income at the percentile level, which is currently not available in the *OECD Income Distribution Database*. For most countries, information on income percentiles have been provided to the OECD by national data providers, and is based on those national sources that are deemed to be most representative for each country. Such information is currently not available for four OECD countries: Chile, Japan, Korea and Turkey.

To which year do data refer?

The information available in the *OECD Income Distribution Database* is more up-to-date when compared to information available through many other statistical sources, but still reflects the long time-lags that characterise data collection in this field in most OECD countries. For most countries data on income and poverty shown in this tool refer to 2016 or 2015. To bring the figures up to date, we have adjusted them in line with changes in the consumer price index for all goods up to 2017.

Information on perceptions of social mobility drawn from the *Pew Research Center's Global Indicators Database* refers to 2017 for the first question and to 2012 for the second question.