Chapter 1

Headline Social Indicators

Introduction

In the 1970s and 1980s, social indicators were developed to provide a better tool than conventional market income indicators for the assessment of living and working conditions. Today the various issues of *Society at a Glance* provide rich information on social conditions in different OECD countries and on the measures taken to improve them. This richness, however, comes at a price. It is difficult for readers to get a concise picture of how social conditions compare across countries and evolve over time from a quick scan of *Society at a Glance*.

A sub-set of headline indicators gives a more parsimonious representation of social conditions. This sub-set serves an important communication function, rapidly alerting users to some of the critical challenges in the social field confronting various OECD countries, and highlighting comparative progress.[1]

This chapter presents the headline indicators as an integral part of *Society at a Glance*. It then describes the approach used to select and construct the set of headline social indicators.

Headline social indicators across the OECD

Tables 1.1 and 1.2 present the eight selected headline indicators, two for each of the four organising dimensions used in *Society at a Glance*. These tables allow readers a bird-eye scan of social conditions across countries, both at a point in time (Table 1.1) and in terms of changes over time (Table 1.2).

In Table 1.1 "Traffic lights" characterise the most recent performance at a point in time of each OECD country (Table 1.1). "Green circle" lights are used for countries that are in the top three deciles of performance, "red diamond" lights for those that are in the bottom three, and "yellow triangle" lights for those in the middle four deciles.

In Table 1.2 "Arrows" describe changes in performance over a recent period compared with other OECD countries. "Green arrows pointing up" characterise countries in the top three deciles of performance, "red arrows pointing down" refer to those in the bottom three deciles of performance, and "yellow arrows pointing to the right" highlight those countries whose change in performance put them in the middle four deciles.

As the information provided is qualitative, indicator values are not shown.[2] As contextual indicators, the tables also include (on the right) net national income (NNI) in United States dollars (USD) at purchasing power parity (PPP) rates (Table 1.1) and growth in real GDP per capita (as real NNI growth is only available for 17 countries) (Table 1.2).

Table 1.1 shows a variety of patterns. Most countries display *levels* of performance spanning the full range of results (green, yellow and red). Only Australia, Austria, Finland, France, Germany, Norway and Sweden do not record any "red lights". Germany, Mexico, Turkey, the United Kingdom and the United States do not record any "green lights". No country has all green lights, but Denmark, New Zealand and Norway have the highest number, five.

Table 1.1. **Headline social indicators for the most recent period**

These symbols describe countries performance at a point in time, with "green circle" denoting countries in the top three deciles, "red diamond" those in the bottom three, and "yellow triangle" those in the middle four

	Self-sufficiency		Equity		Health		Social cohesion		Income
	Employment to population ratio, total	Share of students with insufficient reading competences	Gini coefficient of income inequality	Gender wage gap	Life expectancy at age 65, men	Infant mortality	Subjective well-being	Crime victimisation	NNI per capita, at USD PPPs
	Levels 2007	Levels 2006	Levels 2004-05	Levels 2006	Levels 2006	Levels 2006	Levels 2006	Levels 2005	Levels 2006
Australia	green	green	yellow	yellow	green	yellow	green	yellow	yellow
Austria	yellow	yellow	green	yellow	yellow	green	yellow	green	yellow
Belgium	red	yellow	green	green	yellow	yellow	green	yellow	yellow
Canada	green	green	yellow	yellow	green	red	green	yellow	green
Czech Republic	yellow	red	green	yellow	red	green	yellow	..	red
Denmark	green	green	green	green	red	yellow	green	red	green
Finland	yellow	green	green	yellow	yellow	green	green	yellow	green
France	yellow	yellow	yellow	green	green	yellow	yellow	green	yellow
Germany	yellow	yellow	yellow	yellow	yellow	yellow	yellow	yellow	yellow
Greece	red	red	yellow	yellow	yellow	yellow	red	green	yellow
Hungary	red	yellow	yellow	green	red	red	yellow	green	red
Iceland	green	yellow	yellow	yellow	green	green	yellow	red	yellow
Ireland	yellow	green	red	yellow	yellow	yellow	yellow	red	green
Italy	red	red	red	yellow	yellow	yellow	red	green	yellow
Japan	yellow	yellow	yellow	red	green	green	yellow	green	yellow
Korea	yellow	green	yellow	red	red	red	red	..	red
Luxembourg	red	red	green	green	yellow	green	yellow	yellow	green
Mexico	red	red	red	..	yellow	red	yellow	red	red
Netherlands	green	green	green	yellow	red	yellow	green	red	green
New Zealand	green	green	yellow	green	green	yellow	green	red	yellow
Norway	green	yellow	yellow	green	green	green	green	yellow	green
Poland	red	yellow	red	green	red	red	red	yellow	red
Portugal	yellow	red	red	yellow	red	green	red	green	red
Slovak Republic	red	red	green	red	red	red	red	..	red
Spain	yellow	red	yellow	yellow	green	yellow	yellow	green	yellow
Sweden	green	green	green	yellow	yellow	green	yellow	yellow	green
Switzerland	green	yellow	green	yellow	green	yellow	green	red	green
Turkey	red	red	red	..	red	red	red	..	red
United Kingdom	yellow	yellow	red	yellow	yellow	yellow	yellow	red	yellow
United States	yellow	yellow	red	yellow	yellow	red	yellow	yellow	green

NNI: Net national income.

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There are also different patterns between countries when looking at changes in these indicators of social conditions. As shown in Table 1.2, most countries span the full range of changes across fields, with Denmark, Finland, Ireland, and Greece recording no red arrows; Austria, Canada, the Czech Republic, and Iceland recording no green arrows; and Poland, Slovakia and Turkey recording no yellow ones. Poland has six green arrows, making strong progress on all headline fronts where there is Polish data.

Table 1.2. **Relative progress in headline social indicators for the most recent period**

Arrows describe changes in performance over time, with "green arrows pointing up" denoting countries in the top three deciles of performance, "red arrows pointing down" denoting those in the bottom three deciles of performance, and "yellow arrows pointing to the right" those in the middle four deciles of performance.

Legend: ↑ = green arrow (up), → = yellow arrow (right), ↓ = red arrow (down), .. = data not available.

	Self-sufficiency		Equity		Health		Social cohesion		Income
	Employment to population ratio, total	Share of students with insufficient reading competences	Gini coefficient of income inequality	Gender wage gap	Life expectancy at age 65, men	Infant mortality	Subjective well-being	Crime victimisation	Real GDP per capita
	Change 2007/2003	Change 2006/2003	Change 2004-05/2000	Change 2006/ early 2000s	Change 2006/2000	Change 2006/2000	Change 2006/2000	Change 2005/2000	Change 2006/2000
Australia	↑	→	↑	↓	↑	↓	→	↑	→
Austria	→	→	..	→	→	→	↓	→	→
Belgium	→	→	..	..	↑	→	↑	↓	↓
Canada	→	→	↓	→	→	↓	↓	→	→
Czech Republic	→	↓	↓	→	→	→	→	..	↑
Denmark	→	↑	→	→	→	→	→	→	↑
Finland	↑	↑	→	→	↑	↑	↑	↑	↑
France	↓	↓	→	↓	↑	→	→	↑	↓
Germany	↑	↑	↓	↓	↑	→	↑	→	↓
Greece	↑	→	↑	..	→	↑	→	..	↑
Hungary	↓	→	→	↑	↓	↑	↓	..	↑
Iceland	→	→	..	..	↓	→	..	..	↑
Ireland	↑	→	..	..	↑	↑	→	..	↑
Italy	→	↓	↓	..	↓	↓	↑	→	↓
Japan	→	↑	..	↓	→	↓	↑	↑	↓
Korea	↓	↑	..	→	↑	↓	→	..	↑
Luxembourg	↓	→	→	..	↑	↑	↑	↓	→
Mexico	→	↑	↑	..	↓	↑	↓	↓	↓
Netherlands	→	↓	↑	↑	↑	→	↑	↑	↓
New Zealand	↑	→	→	↓	→	→	..	→	→
Norway	→	↓	↓	..	↑	↓	↓	↓	→
Poland	↑	↑	..	↑	↓	↑	↑	↑	↑
Portugal	↓	↓	..	..	→	↑	↓	→	↓
Slovak Republic	↑	↓	..	..	↓	↑	↑	..	↑
Spain	↑	↓	..	..	↑	→	→	↑	↑
Sweden	→	→	↑	↓	↓	↓	→	↑	→
Switzerland	↓	↑	..	→	↑	↓	↑	↓	↓
Turkey	↓	↑	..	..	↓	→	↑	..	↑
United Kingdom	↓	↓	↑	↑	→	↓	→	→	→
United States	↓	→	↓	↑	↓	↓	↓	↓	→

Note: The time periods for examination of changes differ somewhat because of data availability. Changes refer to arithmetic differences except for crime victimisation (average annual changes). Some criminal victimisation country data starts earlier than 2000. See the discussion for CO3 in Chapter 8 below. These facts mean that comparability is less than for the levels data.

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Eight headline indicators

Concisely summarising social conditions through a set of headline indicators is a challenge. In all cases, the goals are: *i)* to describe *outcomes*; *ii)* to inform about the *broad* set of measures included in the four dimensions of the OECD social indicators taxonomy (self-sufficiency, equity, health and social cohesion); *iii)* to cover the *largest possible number* of OECD countries; and *iv)* to allow monitoring of how social status *evolves over time*.

The *selection* of indicators may be based on a statistical analysis. For example, one approach might involve looking at the correlations between all outcome indicators covered in *Society at a Glance*, selecting those characterised by the highest correlation with other indicators within each domain. An alternative approach could rely on some type of factor analysis to indentify suitable combinations of elementary indicators within each domain.

Once selected, decisions are needed as how best to *present* these indicators. Indicators could be "normalised" so that they all conform to a 0-1 scale. Such normalisation also readily permits creation of composite indices for each of the four domains of social indicators, or an aggregate one across the four domains.[3] Normalisation, however, causes a loss in terms of transparency and hence hampers communication.

Meeting the goals described above is also constrained by data availability. First, changes in definition and sources mean that fewer of the indicators of *Society at a Glance* are available in a consistent form over time. Second, many of these indicators are not updated frequently or even at predictable intervals and have limited country coverage. Last, many of these indicators focus on very specific outcomes (*e.g.* suicides) whose effect is already partly captured by others (*e.g.* life expectancy).

Because of these constraints, rather than using statistical criteria the selection of headline indicators is based on a cross-country consensus arising out of a member country consultation process. To meet their communication function, the selected indicators are presented in their raw form, without any normalisation. However qualitative markers are used to ease interpretation of their numerical values. To achieve the desired parsimony, indicators were limited in number for each dimension.

Based on the above considerations, two headline indicators were selected for each of the four dimensions of social indicators (self-sufficiency, equity, health and social cohesion). This makes a total of eight headline indicators to compare social conditions across countries and to assess how conditions have been evolving. The qualitative considerations that have guided the headline indicator selection are described below.

Self-sufficiency

People's self-sufficiency mainly depends on access to jobs and on their skills. With respect to work, a suitable indicator of labour market outcomes is the **employment rate for the working-age population**. This indicator, based on comparable labour force survey definitions, is available yearly for all OECD countries. Relative to other measures of labour market slack like unemployment rates, the employment rate is less affected by people's decisions to withdraw from the labour market when job prospects are poor.

The most comprehensive measure of peoples' skills and competences currently available is the average years of schooling of working-age people. This indicator, however, ignores human capital formation provided outside schools, and neglects schooling quality.[4] Further, to the extent that the skills of people of working age affect their labour market outcomes, these skills are partially captured by employment rates. There are good

reasons for focusing on the competencies of people *before* they enter the labour market. Pre-employment competencies provide an indication of future labour market prospects and life opportunities. Measures of these competencies for 15-year-olds are available through the OECD *Programme for International Student Assessment* (PISA). These measures are based on comparable survey modules fielded every three years and cover all OECD countries. The indicator used is the **share of students aged 15 with reading competencies at levels 1 or below**, *i.e.* below the minimal level needed to perform normal activities in daily life. Compared to other (PISA) measures of students' competences, this indicator has the advantage of focusing on those youths who, upon reaching adulthood, are more likely to be unemployed, in low-paid jobs, or dependent on social assistance.

Equity

Equity is a concept relevant to a broad range of outcomes, such as income, health, and education. But few of the equity measures currently available have broad country coverage, good comparability, and are available at regular intervals. The two indicators selected focus on income inequality and on pay differences between men and women.

Differences in income between people living in each country are an obvious manifestation of differences in living conditions. When these differences become too large, they may conflict with shared notions of equity. Data on the distribution of household disposable income is collected by the OECD quinquennially. The data enable comparison of income inequality in all OECD countries and an assessment of changes (since 2000) for around two-thirds of them. The indicator is the **Gini coefficient of household disposable income**. This indicator provides a good summary of the entire distribution of household income, and is well correlated to relative poverty measures. However, the Gini coefficient and its changes are not *perfectly* correlated with other measures of inequality, such as poverty, at a country level (for example, Norway is an outlier in a correlation of changes in the Gini against changes in poverty). Thus choice of the Gini over these other measures of inequality can impact on country rankings in the headline indicators. Additionally Gini coefficients are not intuitively understood.

Indicators of income inequality are based on the assumption that all members of the same household share the available resources. Hence, by construction, these measures are not suited to assess differences among men and women, which are an important dimension of equity in all OECD countries. To describe these gender differences, the indicator reported is the **ratio of median earnings between women and men working full-time**. While this is only one element of the labour market penalty confronted by women, it can be more easily compared across countries, and is available at regular intervals. On the other hand, it misses equalisation on account of men and women sharing incomes within families. Data on gender wage gaps are available through the *OECD Earnings Database* for 19 OECD countries.

Health status

The two main dimensions of health status are mortality and morbidity. Unfortunately, no comprehensive, regularly available measure of morbidity currently exists.[5] For this reason, the two indicators used focus on mortality risks for people at the two extremes of the age spectrum.

With respect to older people, the indicator is **life expectancy at age 65**, which is available through *OECD Health Data*. Minor drawbacks of this indicator are that no series currently covers the entire elderly population and that for a few countries the series is not

annually updated.[6] With respect to children, the indicator is the ***infant mortality rate***, *i.e.* the number of deaths of children under 1 year of age, expressed per 1 000 live births. One potential problem with infant mortality rates is due to differences across countries in the way deaths of premature babies are registered, although the importance of this issue for data comparability may be exaggerated (see the discussion for indicator HE3.1 in Chapter 7 below).

Social cohesion

Social cohesion has both positive and negative dimensions. On the positive side, it includes people's participation into community life and their attitudes to others. On the negative side, lack of social cohesion may be revealed by a variety of pathologies such as suicides, risky behaviours or crime.

No comprehensive measure exists of people's participation in community life or of their attitudes to others. Research has however documented that several of these features – together with personal attributes – contribute to the life satisfaction of people. For this reason, the indicator measuring positive dimensions of social cohesion is ***average life satisfaction*** in different countries. Levels of life satisfaction are based on country scores in the 2006 *Gallup World Poll*. Data for measuring changes in life satisfaction comes from a variety of sources (see Box 1.1). While this indicator is, admittedly, only an indirect measure of people's participation in community life and of their attitudes to others, the other indicators available have less intuitive appeal.

Box 1.1. **Measuring life-satisfaction changes**

Time series data on life satisfaction were not available from the 2006 *Gallup World Poll*, used to examine life-satisfaction levels in *Society at a Glance* 2009. Hence data on changes in life satisfaction was constructed from other sources. The initial source was a variety of data collated by the World Database of Happiness (WDH) (see *www1.eur.nl/fsw/happiness/ hap_nat/nat_fp.htm*). Data was extracted from the WDH site on 3rd and 4th October 2008.

Changes in life satisfaction were examined over the period from 2000-06. It was thought that this was a sufficiently lengthy period for changes in satisfaction to emerge. An additional reason was that the chosen end period, 2006, also coincides with the Gallup Survey.

Data on changes in life satisfaction were available for 28 OECD countries. The WDH had 20 countries' time series data taken from the *Eurobarometer* survey. All but Turkey were European countries. Data for the United Kingdom were for Great Britain only. Another four countries had data originally from the *World Values Survey* (Canada, Korea, Mexico and the United States). Norwegian and Swiss data was from the *European Social Survey*. Australian data was from the *Australian Unity Wellbeing Index* and Japanese data was from the *Life in Nation* survey. Data were not available for Iceland and New Zealand.

The original *Eurobarometer* life-satisfaction scale was 1-4, as was the Japanese data, and the transformations provided by the WDH to a 0-10 scale were used. The original *World Values Survey* had a 1-10 scale, and again the same WDH transformation to a 0-10 scale was used. The Australian and Norwegian data needed no transformation.

The questions, translated into in English, differed marginally across surveys. The *Eurobarometer* asked: "How satisfied are you with the life you lead?", while the *World Values Survey* asked "All things considered, how satisfied are you with your life-as-a-whole right now". The Australian survey asked "All things considered, how satisfied or dissatisfied are you with your life as-a-whole these days". The Canadian, Swiss and Norwegian surveys asked the WVS question, and the Japanese survey asked the *Eurobarometer* question.

Box 1.1. **Measuring life-satisfaction changes** (*cont.*)

Out of necessity, change data for the Czech Republic, Hungary, Poland, the Slovak Republic and Turkey was for the period 2001-06. Mexican data was also for a five-yearly period – 2000-05. Japanese data was for the years 2001-07. Korean data was for a four yearly period 2001-05, Norwegian data for 2002-06, and Swiss data was for 200/03-2006/07. United States data was for 1999-2006. For the remainder of the countries, 17 in total, data was for the desired period, 2000-06.

Seasonality was a further limitation. The *Eurobarometer* data were mostly reported in the WDH as being collected in April or April-May 2000 and in Spring 2006, which roughly equate seasonally. The *Eurobarometer* data for the four countries where data was for the period 2001-06 were for October 2001 and Spring 2006. The Australian data compared September 2000 to October 2006. The Canadian data were for August 2000 and an unknown period during 2006. The Japanese data compared September 2000 to July 2006. The Swiss data were collected between September 2002 and February 2003 and August 2006 and April 2007. Korea data for 2001 were for November. No information was provided as to the collection period for the 2005 Korean data. Norwegian data were collected for September 2002 and August to December 2006.

Despite these differences, it was judged that the additional country observations were worth the reduction in average data quality from the various compromises mentioned above. However, the data issues need to be borne in mind by readers, and the detailed country ranking data on life-satisfaction changes should be considered with the appropriate caution.

The correlation between the end point life-satisfaction data used to calculate changes (mostly 2006, but also 2005 and 2007) was fairly strongly correlated with the Gallup Poll data (r=0.81). Major outliers included Turkey and Mexico.

The highest change reported in the data is the very large *Eurobarometer* rise in Turkish life satisfaction from 4.6 in 2000 to 6.1 in 2006. A second Turkish survey (via the *World Values Survey*), using a 1-10 life-satisfaction scale, showed a parallel, even larger rise from 5.6 in 2000 to 7.5 in 2007. The *Eurobarometer* 2006 survey ranks Turkey above Greece, Hungary, Portugal and Slovakia On the other hand, *Gallup World Poll* data show Turkey in 2006 with the lowest level of life satisfaction in the OECD.

Almost all the surveys used here involved small samples sizes (in the handful of thousands). It is not clear which of the reported changes in life satisfaction are statistically significant.
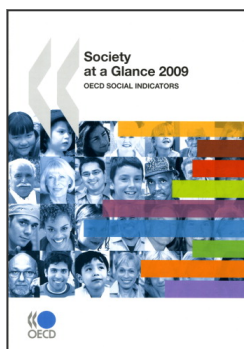
The headline indicator measuring the negative manifestations of social cohesion is crime victimisation, *i.e.* the **share of people who have been victims of a criminal offence** in the preceding calendar year. The data are drawn from the *International Crime Victim Survey* which in its most recent wave covers 26 OECD countries. The indicator used here refers to the ten crime categories that are covered in all waves of the survey.

Notes

1. Headline indicators are used in other areas of OECD work. For example, the OECD report *Environment at a Glance – OECD Environmental Indicators* includes a narrow set of (10) "key environmental indicators", endorsed by OECD Ministers as a tool for public information and communication.

2. Readers interested in numerical values of the headline indicators are referred to the relevant chapters on the detailed indicators below and on the OECD web pages (*www.oecd.org/els/social/indicators*).

3. An example of a "composite" index based on 16 OECD social indicators is presented in Chapter 2 of *Society at a Glance* 2006.

4. Measuring these competencies would require surveys covering the entire population and available for most OECD countries. The OECD *Adult Literacy and Life Skill Survey* (ALLS), run in 2003, covered only five OECD countries. The OECD *Programme for the InternationalAssessment of Adult Competences* (PIAAC) will allow an indicator of competences for the entire adult population in the future.

5. One possible measure of morbidity is provided by self-reported health. While information on this variable is available through *OECD Health Data*, these data do not allow sufficiently regular comparisons over time.

6. For this reason, the indicator presented in Table 1 below refers to elderly men *only*. Obvious alternatives would be to present an indicator of life expectancy in old age for women, or deriving a measure that combines the experience of both men and women.