

# Contextual data for the European Social Survey

## An overview and assessment of extant sources

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## Preface

This report has been prepared for the European Social Survey (ESS) and examines the availability and comparability of extant sources of contextual statistics that may be of interest to users of ESS data.\* It is organised in two main parts. In Part 1 we examine the comparability and quality of some widely used contextual statistics, with the aim of illustrating common problems of comparability that users of the data should be aware of. In Part 2 we offer a more schematic presentation of 50 different sources of contextual data. The purpose of this part is twofold. Most importantly, the overview in Part 2 forms the basis for our assessment of the current availability and coverage of contextual data sources. But we also believe that the overview can be of interest as a user's guide for researchers looking for contextual data to incorporate in their analyses. In the Introduction we explain the background and objectives of the report in further detail, and present some tentative conclusions.

The report was written by Lars Tore Rydland, Sveinung Arnesen and Åse Gilje Østensen, all at the Norwegian Social Science Data Services (NSD). Rydland wrote the Introduction, most of the chapter on regional-level data (Chapter 1), parts of the chapter on GDP statistics (Chapter 2), the chapters on unemployment statistics (Chapter 3) and political indicators (Chapter 5), and 27 of the sections in Part 2. Arnesen wrote most of the chapter on GDP statistics (Chapter 2), the chapter on education data (Chapter 4), and 19 of the sections in Part 2. Østensen wrote the section on electoral districts in Chapter 1, and four of the sections in Part 2.

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# Introduction

## 1. Background and objectives

Contextual data describe the environment in which individuals reside and behave (Johnson, Shively and Stein 2002: 220), and include a wide range of macro statistics such as data on demography, employment, economic development and characteristics of the political system.<sup>1</sup> This kind of data may be a valuable supplement to the survey data collected by the European Social Survey (ESS), since individual behaviour in many cases is contingent upon the social environment. By combining micro-level data from the ESS with information about the social context in the same analysis, it is possible to examine how external factors influence the attitudes and choices of individuals.<sup>2</sup>

Scholars have long recognised the potentially great advantages of combining contextual variables with individual-level data. Linz (1969: 107), for example, has emphasised “the need to specify further many of our generalizations by taking into account contextual variables (...) in understanding individual attitudes and behaviour”. Similarly, Dogan (1994: 58) has claimed that “Survey data and aggregate data should be combined whenever possible.” In recent years, renewed interest in hierarchical analysis and multilevel modelling has further underscored the potential in linking individuals with their social environment.<sup>3</sup>

The survey data collected by the ESS are particularly useful in this context, since the availability of comparable individual-level data for a wide range of countries now makes it possible to carry out multilevel analyses covering a large number of countries.<sup>4</sup> However, a fruitful combination of contextual and individual-level data is contingent upon the quality and comparability of the former, and several scholars have expressed their doubts about the

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<sup>1</sup> We use the terms “contextual”, “macro” and “aggregate” interchangeably throughout this report, even though not all the macro data we discuss are aggregates in the strict sense of the word. The term aggregate data usually refers to “data or variables for a higher level unit (for example, a group) constructed by combining information for the lower level units of which the higher level is composed (for example, individuals within a group)” (Diez-Roux 2002: 588). Many political indicators, such as institutional variables and regime indices, are not based on summaries of the properties of lower-level units, but measure characteristics of the higher-level units themselves. See Diez-Roux (2002) for definitions of concepts and terms used in multilevel analysis.

<sup>2</sup> See Steenbergen and Jones (2002: 219-221) for a discussion of the advantages of combining contextual data with survey data. In addition to theoretical reasons for combining data from multiple units of analysis, an important statistical motivation is the need to control for group effects in the survey data that may be difficult to detect otherwise.

<sup>3</sup> See Achen (2005) and Steenbergen and Jones (2002) for discussions of hierarchical and multilevel models.

<sup>4</sup> In fact, one of the proposed Eurocores programmes, the HumVIB, specifically addresses the great potential in combining contextual variables with individual-level ESS data in cross-country comparisons. See the HumVIB website for further details about the programme:

<http://www.esf.org/activities/eurocores/programmes/humvib.html> (28 August 2007).

availability and quality of aggregate statistics (e.g., Eberstadt 1995; Herrera and Kapur 2007; Maddala 1999: 431; Srinivasan 1994).

This report addresses the challenge of providing comparable macro statistics that can be used in combination with ESS data. The report has two main objectives. First, it provides an overview of extant sources of contextual data that may be of interest to ESS users. And second, it examines the comparability and quality of some widely used contextual statistics.

The objectives can be further specified in four questions: are contextual data easily available for most topics that could be of interest to ESS users? Is the coverage of the data sufficient? Is the quality and comparability of the data good enough? And finally, is the documentation of the data adequate? In the following pages we elaborate on these questions and explain the reasoning behind our answers.

### **2. Availability of contextual data**

The availability of contextual data has improved appreciably over the last couple of decades, a development that has been noted and welcomed by several scholars (e.g., Atkinson 2002: 12; Collier 1999: 1; Harkness 2004: 1). Cheibub (1999: 21), for example, argues that “there has been an explosion of cross-national studies examining all sorts of relationships; relationships that, only a few years ago, would have been definitely beyond systematic scrutiny for lack of data.” This trend is also reflected in the overview of extant sources of contextual data presented in this report. We have examined 50 different sources that, taken together, offer data on most of the major areas of research in the social sciences. International organisations such as Eurostat, the OECD, the United Nations and the World Bank publish a wide range of general background statistics on topics such as demography, education, economic development and finance, the labour market, communication and culture, living conditions and welfare, minorities and immigrants, and health conditions. In addition, non-governmental organisations and individual research projects provide data on a host of other issues, including political institutions, elections and electoral systems, political parties, ethnic and religious minorities, corruption, human rights, and political regimes.<sup>5</sup>

Hence ESS users who wish to incorporate contextual background data in their analyses can choose between numerous sources that provide data on a variety of topics. What is more, most of the data sources are freely available on the internet. Of the 50 different sources we have

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<sup>5</sup> See Section 51 in Part 2 for a list of topics covered by various data sources, and an index of relevant sources for each topic.

examined, only a few require payment.<sup>6</sup> And since most of the major sources of contextual statistics make their data available online, scholars anywhere in the world can easily download the data they are looking for.

However, this positive assessment of the current situation of data availability must be qualified in five important respects. First, the technical solutions for disseminating data are sometimes cumbersome and lack flexibility. Second, there are still several areas where there is a lack of data. Third, the coverage of some of the datasets is rather limited, in both temporal and geographical terms. Fourth, the quality and comparability of many widely used datasets in cross-country comparisons have been challenged. And fifth, the documentation of the data is often inadequate, making it difficult for users to examine independently the comparability and quality of the data.

The first of these caveats is arguably the least important, but it is not insignificant. Some of the databases are very intuitive and easy to use, and allow users to individually specify the variables, units and years that are to be included in a dataset before downloading it.<sup>7</sup> But other databases are more cumbersome to use. For example, the data in Eurostat's Dissemination database are stored in various subfolders and tables, and it is not possible to select variables from different folders or tables and download them in a single file. Instead, users must download data from each table separately, making it unnecessarily time-consuming to construct a single dataset with various types of data.<sup>8</sup> It should be noted, though, that Eurostat's database is fairly straightforward to use, and in most cases it is possible to create subsets of data from a single table by specifying various dimensions. Many other sources are less flexible still, and only provide users with the option of downloading the entire dataset in a single file, typically as an Excel spreadsheet or an SPSS file. Though it is very easy to download the data in this manner, it is not very flexible for users who are only interested in a couple of variables for selected units and years.

The second caveat is a more significant problem: there are still several areas where there is a lack of data, especially of the detailed sort.<sup>9</sup> While the sources examined in this report publish data on most *topics* that may be of interest to ESS users, the data are often only made available at a highly aggregate level. Hence users looking for *detailed series* may find the data published by

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<sup>6</sup> The databases that require payment are the Cross-National Time-Series Data Archive, the IMF's International Financial Statistics, the World Bank's World Development Indicators and the World Christian Database. In addition, some of the datasets published by the OECD and the International Labour Organisation (ILO) must be purchased, but these two organisations also provide data free of charge.

<sup>7</sup> Examples of databases that are easy and flexible to use are the United Nations Statistical Division's Common Database, the CIRI Human Rights Dataset and the World Bank's World Development Indicators.

<sup>8</sup> Another example of this problem is the OECD's SourceOECD database.

<sup>9</sup> Cheibub (1999: 23), for example, notes that "sometimes we simply lack the data, even on the most basic, observable, uncontroversial political events such as elections and incumbency."

international organisations inadequate: such data are often only available from national statistical offices, which generally hold more comprehensive statistical collections. Furthermore, the contextual data in international databases are usually only available at a highly aggregate level in a *geographical* sense as well. In most cases, international organisations only publish statistics at the country level; the only international agencies that provide *regional data* are Eurostat and, to a lesser extent, the OECD.<sup>10</sup> Comprehensive data collections, including both country-level and regional-level statistics, are thus frequently only available from national statistical offices. Yet for an individual researcher to compile a dataset with information from the national statistical offices in all European countries would be both difficult and time-consuming, given the number of national agencies, language difficulties and differences in definition and data collection. Hence the only feasible alternative is, in many cases, to make do with the collections stored in international databases.

### 3. Coverage of contextual data

The availability of data varies significantly across countries. Many scholars have pointed out that data on key variables of interest to scholars are either incomplete or not collected at all, especially in developing countries (Herrera and Kapur 2007: 368; see also Srinivasan 1994, and Widner 1999). This brings us to the third qualification: coverage is rarely, if ever, complete. Generally speaking, the availability of data is a lot better for developed countries, i.e. the western European member states of the OECD and the European Union. For these countries, the OECD and Eurostat publish data on most topics, often covering a fairly long time period and sometimes at a lower level of aggregation than the nation-state. Thus, even though there are many instances of missing data also in Eurostat's statistical collections, it is reasonable to say that the geographical and temporal coverage of contextual data is fairly good for western Europe.

However, the availability of data is more limited for eastern European countries, some of which also participate in the ESS.<sup>11</sup> Data on many central variables are either not collected at all or are only available for a limited time period. Even though there are several organisations that publish data for eastern European countries, their data series are generally less detailed than the

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<sup>10</sup> See Chapter 1 in Part 1 for a discussion of regional-level data.

<sup>11</sup> See Part 2 for further information about which ESS countries that are poorly covered or not covered at all in the various data sources. Generally speaking, the countries that are the most problematic in terms of coverage are Israel, Russia, Turkey and Ukraine. But in some cases coverage is also rather poor for other eastern European countries, such as Bulgaria and Romania.

ones published by Eurostat for western Europe, and in many instances information is missing for several countries.<sup>12</sup>

Since the majority of countries participating in the ESS are covered by the OECD's and Eurostat's databases, one possible solution to the problem of limited coverage could be to supplement these sources with other data whenever necessary. For example, scholars could use data from Eurostat as a starting point, and complement these with information from national statistical offices and organisations such as the United Nations Economic Commission for Europe (UNECE) and the United Nations Statistical Division, which have a broader geographical scope. Yet combining data from different sources may be problematic if the data are of different quality. According to Herrera and Kapur (2007: 371), the combination of data from sources with different degrees of measurement error may lead to biased and inconsistent results if the measurement error is correlated with other variables of interest, and perhaps also with the dependent variable. Scholars should therefore be careful when mixing seemingly comparable data from various sources, since there may be significant differences between them even when they purport to measure the same thing. This leads us to the fourth and probably most important caveat: the quality and comparability of the available contextual data.

#### **4. Quality and comparability**

Most sources of contextual statistics present their data in a common framework and in standardised tables. But this does not necessarily imply that the data are truly comparable – in the sense that they are measuring the same overarching concept – nor does it mean that the data are of a high quality.<sup>13</sup> In fact, several scholars have argued that many of the most commonly used datasets with contextual statistics are very unreliable, suffering from problems of inaccuracy and a lack of comparability. Writing in the mid-1990s, Srinivasan (1994: 23-24) reached the conclusion “that the situation with respect to the quality, coverage, intertemporal and international comparability of published data on vital aspects of the development process is still abysmal in spite of decades of efforts at improvements.”<sup>14</sup> Even though some have argued that the quality of contextual data has improved in recent years (e.g., Atkinson 2002: 12; Harkness 2004: 6), a recent

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<sup>12</sup> Examples of organisations that publish data for eastern Europe countries are the United Nations Economic Commission for Europe (UNECE), the United Nations Statistical Division, the World Bank and several other specialised agencies of the United Nations. In addition, some of Eurostat's collections contain data for eastern Europe.

<sup>13</sup> See Gerring and Thomas (2005) for a discussion of the concept of comparability.

<sup>14</sup> For expressions of similar arguments, see Cheibub (1999), Dogan (1994) and Maddala (1999: 431).

review found that there are still many instances of inaccuracy or outright errors in widely used datasets (Herrera and Kapur 2007).<sup>15</sup>

Problems of comparability and data quality affect most kinds of data, though some statistics are more susceptible than others. In some areas, such as national accounts and labour force statistics, international guidelines exist that specify how central concepts are defined and how data should be collected. As a result, the definition of variables such as the gross domestic product (GDP) and the unemployment rate are now broadly similar across countries. Nonetheless, as we discuss in chapters 2 and 3 (Part 1), even for these highly standardised variables there are some differences in definition and measurement between countries. Hence even in cases where international organisations have spent decades to coordinate how data should be defined and collected, problems of comparability remain. Similar and sometimes even more serious problems affect the quality of other socio-economic statistics in areas such as income inequality (Atkinson and Brandolini 2001), social indicators (Strauss and Thomas 1996), education (Chapter 4; see also Behrman and Rosenzweig 1994, and de la Fuente and Doménech 2006), demography (Chamie 1994), poverty and inequality (Fields 1994), and social welfare spending (De Deken and Kittel 2007; Kühner 2007; Siegel 2007). In short, socio-economic variables, though often perceived as objective and equivalent across countries, may upon closer examination turn out to be less comparable than they first appear.

There are, then, problems of comparability and quality even in areas where national governments and international organisations have strived to improve the situation. It is therefore not surprising that data may be even more uncertain on issues that governments have not tried to measure quantitatively. This is clearly reflected in datasets trying to measure political issues such as human-rights violations, corruption, political institutions and political regimes. Such datasets are usually produced by individual research projects or non-governmental organisations, which have limited resources. In some areas, such as human-rights conditions and corruption, it is nearly impossible to get reliable data; other topics are difficult to measure objectively because of lack of consensus on the definition of basic political concepts (see Chapter 5 for a discussion of political indicators).

The studies cited above are mainly concerned with the quality of quantitative data for developing countries, and the situation is better when it comes to developed countries in western Europe. In general, according to Dogan (1994: 41), “the lower the level of development, the lower is also the validity of quantitative data.” Yet low data quality is not exclusive to poor

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<sup>15</sup> For example, Herrera and Kapur (2007: 370) find that there are often “discrepancies either within the data produced by a single organization or between different organizations claiming to measure the same thing”. Furthermore, “many government statistical offices do not fare much better than [international organizations]” (ibid.).

countries (Harkness 2004: 11; Herrera and Kapur 2007: 377). For example, in an analysis of the comparability and quality of social expenditure data, De Deken and Kittel (2007: 99) conclude that “even our best sources for internationally comparable data (the OECD social expenditure database and [Eurostat’s] ESSPROS database) are conceptually ambivalent and inconsistent to an extent which seriously undermines the conceptual validity of the indicators used.” Scholars should therefore be mindful of problems of comparability even when using data from Eurostat and the OECD.

Still, the central question is: how important are the problems of quality and comparability? Are the existing data good enough? Claiming that data quality is important would seem like stating the obvious. Yet some scholars argue that researchers generally do not care much about the quality of the data they use. Herrera and Kapur (2007: 366), for example, claim that “Inattentiveness to data quality is, unfortunately, business as usual in political science.” Srinivasan (1994: 4), in a similar vein, maintains that “it would appear that researchers are either not aware of or, worse still, have chosen to ignore the fact that the published data, national and international, suffer from serious conceptual problems, measurement biases and errors, and lack of comparability over time within countries and across countries at a point in time.”

Ignoring deficiencies in the data is clearly not a good way to do science. Yet whether or not the existing data sources are satisfactory in terms of quality and comparability depends on the research question at hand. Some scholars argue that reliability problems should not discourage researchers from doing quantitative analyses,<sup>16</sup> and in some respects it seems reasonable to claim that the available contextual data are, indeed, good enough for many ESS users. If a researcher is simply interested in some background information in order to interpret the survey data within a broader social context, it will not matter much that the aggregate data are not measuring the variable of interest with absolute precision. For example, whether the unemployment rate in the Netherlands in 2005 was 5.2, as the ILO (2007) reports, or 4.6, as the OECD (2007: 245) says, does not matter much for a researcher interested in comparing people’s attitudes in countries with different levels of unemployment; the Netherlands’ unemployment rate in 2005 was significantly lower than Poland’s whichever way you measure it.<sup>17</sup>

Another reason for treating the existing and deficient contextual data as satisfactory is that it is sometimes unrealistic to expect that better data can be collected. Many of the most significant aspects of political and social life cannot be measured with precision, but this does not

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<sup>16</sup> Temple (1999), in a review of the literature on economic growth in developing countries, argues that even though cross-country data are often subject to problems of mismeasurement, quantitative cross-section analyses can still provide valuable insights (ibid: 130).

<sup>17</sup> The unemployment rate in Poland in 2005 was 17.7 according to the ILO (2007) and 17.8 according to the OECD (2007: 245).

mean that measures are worthless (Dogan 1994: 54). Issues such as human-rights violations and corruption, for example, can never be measured with accuracy, but it is possible to obtain rough estimates that can still be useful. As Tukey (1962: 13-14) notes: “Far better an approximate answer to the *right* question, which is often vague, than an *exact* answer to the wrong question, which can always be made precise.”

This is not to say that scholars should be inattentive to problems of data quality and comparability. The validity and reliability of contextual variables are important even when they are only used to put survey data in a broader social context. And in cases where scholars are primarily interested in properties of the contextual data themselves, such as in pooled time-series cross-section analysis, the quality of the data becomes all the more important. As we discuss in chapters 2 and 5, differences between datasets purporting to measure the same thing may sometimes lead to significantly different results. Various ways of estimating GDP at purchasing-power parity, for example, may lead to different estimates of the GDP of poor countries relative to rich ones (Hill 2000), and the impact of different variables on regime type varies depending on which democracy index you use (Casper and Tufis 2003).

ESS users who incorporate contextual data in their analyses should, therefore, take the question of data quality seriously. First, they should take the uncertainty of the data into account when they interpret their results, possibly by factoring the measurement error into an estimate of the degree of confidence attached to the data. Second, they should try to find data that are of as high a quality as possible, and if existing data are not good enough, they should try to collect primary data themselves. And third, they should engage the data critically to examine whether supposedly comparative data really are comparable.

Yet the effort required to resolve the last two tasks is substantial (Cheibub 1999: 23; Widner 1999: 18), and it is therefore not surprising that many researchers choose the simple option of downloading easily accessible, ready-made datasets without paying too much attention to the quality of the data. This option becomes all the more tempting since many of the datasets are already widely used and/or are published by highly regarded institutions, thus giving “the data sets a badge of credibility” (Herrera and Kapur 2007: 381). In order to help researchers avoid this common problem, existing data sources should provide them with enough information to examine the data critically. Unfortunately, this is not always the case; hence the final caveat: the documentation of extant sources of contextual data is often insufficient.

## 5. Documentation

In fact, the sources examined in this report vary greatly when it comes to how much documentation they provide. All sources provide some information on the definition of variables and the sources on which the data are based. Some datasets also provide easily accessible and detailed information on methodology and sources, allowing independent users to examine how the data were collected and sometimes also replicate the results. The CIRI Human Rights dataset, for instance, is documented in a codebook that gives a detailed description of how each variable is coded, what sources are used and how instances of ambiguity are treated. Another example of fairly good documentation standards is Eurostat's Dissemination database, which provides easily accessible metadata online, although the detail of the documentation varies between topics.

But in many cases the documentation is either too sketchy or too difficult to get access to. Sometimes the documentation is so limited that it is outright misleading. For example, the documentation of the adult literacy variable in the World Bank's World Development Indicators is limited to a short definition of literacy that presumably is the same for all countries in the database. The primary sources of the data are not listed; the documentation merely states that the data are taken from UNESCO's Institute for Statistics (UIS). Hence a user who accepts the documentation provided by the World Bank at face value would assume that the adult literacy rate really reflects "the percentage of people ages 15 and above who can, with understanding, read and write a short, simple statement on their everyday life."<sup>18</sup> But the documentation of the same variable in the UIS's online database reveals a different picture: the definition of literacy varies across countries, and sometimes over time within the same country. For some countries, such as Afghanistan and Zambia (in 1999), the definition does not require people to be able to write; anyone who can "read easily or with difficulty a letter or a newspaper" is defined as literate.<sup>19</sup> Furthermore, the data are based on self-declaration or household-declaration, and the primary sources of the data vary from country to country. In most cases the data are taken from population censuses, but labour force surveys, household surveys and even estimates calculated by the UIS are also used. Thus the quality and comparability of the data are a lot shakier than one would think when reading the documentation provided by the World Bank.

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<sup>18</sup> Definition of adult literacy rate in the World Bank's World Development Indicators. <http://devdata.worldbank.org/dataonline/> (4 September 2007).

<sup>19</sup> The definitions used in various countries are documented in an Excel spreadsheet that can be downloaded from the UIS online database. Note that the literacy rate for Zambia in 1990 is based on a definition that classifies as literate only people who can both read and write. The change of definition is not documented by the World Bank. [http://stats.uis.unesco.org/ReportFolders/ReportFolders.aspx?CS\\_referer=&CS\\_ChosenLang=en](http://stats.uis.unesco.org/ReportFolders/ReportFolders.aspx?CS_referer=&CS_ChosenLang=en) (4 September 2007).

Even in cases where the documentation is sufficient (albeit limited), the metadata may be difficult to get access to, and inattentive users may treat as comparable data that are not. For example, the UNECE's Statistical Database contains a table with unemployment rates for various European countries. The general note to the table states that "The UNECE secretariat presents time series ready for immediate analysis," and the definition of the unemployment rate is allegedly based on the recommendations of the ILO.<sup>20</sup> The footnote to the table also states that not all countries provide data according to this definition, but many users may be misled to believe that the data in the table are actually comparable. It is only when looking at another webpage, linked to the footnote, that one sees that the table contains a mix of data based on labour force surveys and administrative data. Data from these two sources cannot be treated as comparable (see Chapter 3), and it is highly misleading to present them in the same standardised table.<sup>21</sup>

These examples show that the documentation of extant sources of contextual data is sometimes inadequate, making it difficult for external users to find out whether the data are really comparable. ESS users who wish to use contextual data in their analyses must therefore be prepared to spend some time examining the data in order to find out whether they can be used. This will often be quite time-consuming and may involve comparing data from different organisations, studying the available documentation carefully and consulting independent reviews of the data sources.

## 6. Room for improvements

To summarise, the assessment of existing sources of contextual data reveals a rather mixed picture. The availability of data is fairly good for many topics, and most sources provide their data free of charge. Furthermore, some sources have good technical solutions for disseminating data, cover a large number of countries and a fairly long time period, publish data of good quality, and provide detailed documentation that allows for independent review. Nonetheless, the coverage of existing sources is, by and large, not good enough, and the quality and comparability

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<sup>20</sup> UNECE Statistical Database. <http://w3.unece.org/pxweb/Dialog/Default.asp> (5 September 2007).

<sup>21</sup> A similar problem pertains to some of the OECD's data collections. OECD data can be accessed in various ways, using different websites and applications. Some of these provide very little documentation. For example, when we accessed the OECD Economic Outlook Database (Economic Outlook: Annual and quarterly data, Vol. 2007, release 01) through SourceOECD to find unemployment rates, the documentation said nothing about which definition of unemployment that was being used. But when we compared the rates for Sweden with data published by Statistics Sweden, we could see that the rates published by the OECD was based on the national Swedish definition of unemployment, and not the OECD's own standardised definition. However, when we used the OECD.Stat database, we found the OECD's standardised unemployment rates with fairly detailed documentation easily accessible in the online database (<http://puck.sourceoecd.org/> and <http://stats.oecd.org/wbos/>, 5 September 2007).

of many types of data are questionable. In addition, the documentation of problems of quality and comparability is often inadequate. There should therefore be plenty of room for improvements when it comes to providing comparable, high-quality contextual data with a broad geographical and temporal coverage.

There is, admittedly, little that can be done with the most fundamental problems, at least within the short term. The main reasons for the unsatisfactory current situation are that the definitions and data collection procedures of national statistical offices often differ, and that primary data in many cases simply do not exist. Solving these problems requires a coordinated and continuing effort by national statistical offices and international organisations.<sup>22</sup>

Nonetheless, there are two things that can be done that would improve data availability for ESS users considerably. First, contextual statistics can be made more accessible by storing data that are of particular relevance to ESS users in one place. This would involve developing a new database that could, in addition to bringing together data from different sources, provide users with a more flexible and user-friendly way of accessing data. Ideally, such a database should include a system for appending contextual data as background variables directly to the ESS survey data, both at country level and in accordance with the regional classification used in the survey. This would make it a lot easier for ESS users who are interested in contextual data to incorporate such information in their analyses, especially since the regional breakdown used in the survey varies across countries. Furthermore, a new database, specifically designed to accommodate the needs of ESS users, would draw attention to the many possibilities that exist for combining macro and micro data, possibilities that many users are unaware of.

Second, the problems of comparability and data quality can be better documented. This can be done either by developing a better documentation standard in a new database, or by describing problems that users of contextual data should be aware of in some sort of user's guide. As Dogan (1994: 38) notes, the problem of poor data quality is not so much the nature of evidence as its uncritical use. By alerting researchers of the potential deficiencies of the contextual data they use, the common practice of drawing too firm conclusions from shaky data can be discouraged.

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<sup>22</sup> In fact, several international organisations already work to coordinate the collection of comparable statistics across countries and to enhance the statistical capabilities of national statistical offices. Important projects in this regard include Eurostat's (2007) European Statistical System, the World Bank's (2007) Statistical Capacity Building, the UNSD's (2007a) Good Practices on National Official Statistics, and the United Nations' Committee for the Coordination of Statistical Activities (see UNSD 2007b).

## 7. Outline of the report

The rest of the report is organised in two main parts. In Part 1 we examine the comparability and quality of contextual data in some detail. Since these issues vary greatly between different types of statistics (and between data producers), we only examine a limited number of variables and indicators. A full discussion of the comparability of all relevant statistics is beyond the scope of this report. The purpose of Part 1 is therefore only to *illustrate* and *exemplify* problems of comparability that users of contextual data should be aware of. Then, in Part 2, we provide an overview of extant sources of contextual data that may be of interest to ESS users. We give a brief summary of 50 sources, detailing the contents of the datasets and explaining how users can get access to them.

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## **Part 1: Comparability and quality of contextual data**

The purpose of this part of the report is to illustrate some problems of comparability and data quality that users of contextual data may encounter. By examining a limited number of variables and indicators, we seek to demonstrate that even widely used statistics from reputable sources can be prone to comparability problems. Even though we only examine a few types of data in detail, the chapters in this part exemplify a more general argument: countries frequently use slightly different definitions and methodologies when they collect contextual statistics, and users of such data should therefore interpret differences across countries and regions with caution.

The part is organised in five chapters, the first of which is concerned with regional-level data. After a brief presentation of the European Union's system for classifying regions at various levels, the chapter discusses some of the problems of comparability that affect regional-level data in general.

The next three chapters focus on three widely used statistics collected by national statistical offices: gross domestic product (GDP) data (Chapter 2), unemployment rates (Chapter 3), and education statistics (Chapter 4). In all these areas, national governments and international organisations have spent decades coordinating the collection of data in order to ensure comparability across countries. Yet as we show in our review, some differences remain when it comes to how countries define and measure GDP, unemployment and education. Our discussion of these topics thus illustrates that ESS users should be mindful of comparability problems even when using highly standardised contextual data.

Nonetheless, the reliability problems associated with these three statistics are small compared with the data we examine in the final chapter. In Chapter 5 we turn to indicators of various aspects of political systems, an area where governments generally do not collect much data. Datasets with political indicators are therefore usually compiled by non-governmental organisations and individual research projects. However, scholars frequently disagree when it comes to how central political concepts should be defined and measured, hence political indicators are subject to some specific problems of comparability and data quality.

## Chapter 1: Regional-level data

Most countries are characterised by internal diversity (Dogan 1994: 41-42), and many users of ESS data will therefore find contextual data at a regional level useful.<sup>23</sup> Furthermore, regional-level data are of particular relevance to ESS users, since the surveys contain information on the respondents' region of residence. Most of the data sources examined in this report publish data at country level only, but some also provide data on lower levels of aggregation. For practical purposes, the main source of regional data in Europe is Eurostat, which strives to compile statistics that are comparable across countries and regions.<sup>24</sup> Still, producing comparable regional-level data poses some specific problems that users of the data should be aware of.

### 1.1 The NUTS system

Eurostat (and some other data sources) publishes regional data according to the nomenclature of territorial units for statistics, which is usually referred to by the French acronym NUTS (nomenclature des unités territoriales statistiques). The nomenclature was established in the early 1970s in order to provide a single, coherent system for dividing up the then European Community's territory.<sup>25</sup> The main purpose of the system was to facilitate the production of comparative regional statistics (Eurostat 2002: 3), in large part in order to address the needs that arose as the community started to develop regional policies. A community regulation adopted in May 2003 gave the NUTS system legal status in EU countries (Eurostat 2007a: 4). Several other countries, such as members of the European Free Trade Association (EFTA) and candidate countries for the EU, have adopted similar regional classifications.

When the regional breakdown was established in the 1970s, the categorisation was largely determined by the political needs to differentiate between the main administrative divisions of France and Germany, the two dominant states in the European Community at the time (Casellas and Galley 1999: 552). Hence the classification divides countries into three main regional levels: NUTS 1 (corresponding to German *Länder*), NUTS 2 (French *régions*) and NUTS 3 (French *départements*). The various levels are organised in a nested hierarchy, so that each country is subdivided into a whole number of regions at level 1, each of these is then divided into regions at

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<sup>23</sup> In this report, the term "region" or "regional" is generally used to denote a subdivision of a sovereign state, e.g. German *Länder* or French *régions*. A region is thus a tract of land with marked boundaries, which may (but need not) serve as an administrative unit below the level of the nation state (Eurostat 2007a: 2). Note that many international agencies use the term in reference to a group of countries or an entire continent, e.g. eastern Europe or Africa.

<sup>24</sup> The primary source of Eurostat's regional data is usually national statistical offices.

<sup>25</sup> Lists with codes and names and occasionally maps of NUTS regions were published in internal Eurostat papers from 1981 onwards. Complete lists of codes and names, as well as maps, have been made available to external users since 1995 (Eurostat 2002: 3).

level 2, which again are divided into regions at level 3.<sup>26</sup> A particular territorial unit may be classified as several levels; Hamburg in Germany, for instance, is a region at levels 1, 2 and 3 (Eurostat 2007c). At the beginning of the 1990s, two further levels were defined in accordance with the same principles: local administrative unit (LAU) 1 and 2.<sup>27</sup> Only the last and smallest of these – LAU 2, usually corresponding to the concept of municipality – has been fixed for all member states of the European Union (Eurostat 2007a: 6).

The division of a country into NUTS regions is largely determined by two factors: population size and existing administrative units. The regulation adopted in 2003 specifies the minimum and maximum thresholds for the average population size of regions at the three levels in a country, as shown in Table 1.1.

**Table 1.1: Average population size of regions**

Level	Minimum	Maximum
NUTS 1	3 million	7 million
NUTS 2	800.000	3 million
NUTS 3	150.000	800.000

*Notes:*  
The table shows the minimum and maximum thresholds for the average size of NUTS regions, as laid down in the 2003 NUTS regulation.  
*Source:* European Union (2003: 3)

If the population size of a country is below the minimum threshold for a given NUTS level, the whole country is classified as one territorial unit for this level (European Union 2003: 3).

The regional classification is to a large extent based on the administrative divisions applied in the various countries, mainly because these are often used by the national statistical offices for data collection and dissemination. Hence when applying the NUTS system to a particular country, the first step is an analysis of its administrative structure. If the average size (mainly in terms of population) of the territorial units at an administrative level corresponds more or less with one of the NUTS levels, the administrative structure is adopted in its entirety as the regional breakdown for this level. If, on the other hand, no administrative structure has an average size similar to the thresholds laid down in the regulation, a non-administrative level is created by grouping together smaller administrative units (Eurostat 2007c: 7).

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<sup>26</sup> This has not always been the case. In an earlier version of the nomenclature, not all level 1 regions in Belgium were divided into a whole number of level 2 regions. Brussels was a separate region at levels 1 and 3, but part of the province of Brabant at level 2 (Dunford 1993: 733). In the present version, Brussels is a separate region at all three levels.

<sup>27</sup> Prior to July 2003, LAU 1 and 2 were denoted NUTS 4 and 5 respectively (Eurostat 2007e), but references to the old denotations still abound.

The larger EU countries usually have functional administrative units corresponding to two of the three NUTS levels. This may be, for example, at levels 1 and 3 (respectively the *Länder* and *Kreise* in Germany), or at levels 2 and 3 (*comunidades autónomas* and *provincias* in Spain). In order to complete the breakdown, a third level is created in each country. This additional level may be based on a regional structure that is less extensively used for administrative functions, or it may be created solely for statistical purposes (ibid: 6). The smaller states often have administrative units only at one of the three levels; hence two additional, non-administrative levels must be created in an ad hoc fashion. This is the case, for example, with Bulgaria and Portugal.

Table 1.2 shows the number of regions in the 27 member states of the EU according to the 2003 version of the nomenclature, and the average population size of the regions. Non-administrative levels are in grey. The table also contains information on the statistical regions in some other European countries.

**Table 1.2 Number of statistical regions and average population size in thousands**

Country	Level 1		Level 2		Level 3	
	No.	Av. pop. Size	No.	Av. pop. size	No.	Av. pop. size
<i>EU member states:</i>						
Austria	3	2 736	9	912	35	234
Belgium	3	3 482	11	950	43	243
Bulgaria	2	3 881	6	1 294	28	277
Cyprus	1	749	1	749	1	749
Czech Republic	1	10 221	8	1 278	14	730
Denmark	1	5 411	1	5 411	15	361
Estonia	1	1 347	1	1 347	5	269
Finland	2	2 618	5	1 047	20	262
France	9	6 903	26	2 390	100	621
Germany	16	5 156	41	2 012	439	188
Greece	4	2 771	13	853	51	217
Hungary	3	3 366	7	1 443	20	505
Ireland	1	4 109	2	2 055	8	514
Italy	5	11 692	21	2 784	103	568
Latvia	1	2 306	1	2 306	6	384
Lithuania	1	3 425	1	3 425	10	343
Luxembourg	1	455	1	455	1	455
Malta	1	403	1	403	2	201
Netherlands	4	4 076	12	1 359	40	408
Poland	6	6 362	16	2 386	45	848
Portugal	3	3 510	7	1 504	30	351
Romania	4	5 415	8	2 707	42	516
Slovakia	1	5 385	4	1 346	8	673
Slovenia	1	1 998	1	1 998	12	166
Spain	7	6 148	19	2 265	52	828
Sweden	1	9 011	8	1 126	21	429
United Kingdom	12	4 975	37	1 613	133	449
EU 27	95	5 159	267	1 836	1284	382
<i>Non-EU countries:</i>						
Croatia	1	4 444	4	1 111	21	212
Iceland	1	294	1	294	1	294
Liechtenstein	1	35	1	35	1	35
Norway	1	4 606	7	658	19	242
Switzerland	1	7 415	7	1 059	26	285
Turkey	12	6 005	26	2 772	81	890

*Notes:*

Number of NUTS regions at levels 1, 2 and 3 in EU member states according to the 2003 NUTS regulation, and average population size of the regions on 1 January 2005 (in thousands). Population data for France and the United Kingdom from 1 January 2004. Non-administrative levels are in grey. For non-EU countries, the table shows the number of statistical regions at the corresponding levels as of 2007, and average population size of the regions in 2005 (in thousands). Information on non-administrative levels is not provided for non-EU countries.

*Sources:*

Adapted from Eurostat (2007a: 7-8), supplemented with information from Eurostat (2007c). Population data from the General and regional statistics-domain in Eurostat's (2007b) Dissemination Database.

## 1.2 Comparability of regional data

There are at least three problems associated with the use of the NUTS system in comparative analysis. First, even though the classification is supposed to form a coherent system of regional units, it remains very heterogeneous in character. With some exceptions – notably countries that are too small to be subdivided into regions at levels 1 and 2 – the average size of the regions in the countries fall within the upper and lower thresholds specified by the regulation (see Table 1.2). However, within each country, the size of regions at the same level varies considerably. For example, of the 277 level 2 regions for which population figures are available for 2004, 39 had a population of over 3 million, while 70 had fewer than 800.000 inhabitants. Thus, nearly 40% of the regions at level 2 fall outside the thresholds set for the average size of regions at this level. The differences between the biggest and smallest regions (in terms of population size) are even more striking: the two most populous regions – Lombardi in Italy and Île de France – have about 10 million inhabitants, while the three least populous ones have less than 100.000 (the Finnish autonomous region of Åland and the Spanish autonomous regions of Melilla and Ceuta).<sup>28</sup>

Regions at the same level are often markedly different in other respects as well. Casellas and Galley (1999: 553) note that the level 2 units encompass a wide range of different geographical areas: cities and metropolitan areas (Hamburg, Île de France, Greater London), small countries (Luxembourg, Denmark), agglomerations of small islands (Voreio Aigaio, Åland), remote territories (Guyane, Réunion) and huge rural regions (Calabria, Alentejo). Several scholars have pointed out that it is problematic to treat these units as comparable, and that the regional classification may have negative implications for cross-sectional analyses (e.g., Boldrin and Canova 2001: 212-213; Dunford 1993: 727). Casellas and Galley (1999), for example, find that the regional disparities within the EU are overstated as an artefact of the regional definitions laid down in the NUTS system.<sup>29</sup>

A second and related issue concerns the accuracy of certain types of data. In some cases the borders between territorial units are drawn in such a way that regional data are quite misleading. For example, GDP statistics may sometimes leave the impression that large cities have a much higher income per person than is actually the case. The example of the city of Hamburg, pointed out by Boldrin and Canova (2001: 212), is illustrating. Hamburg is a level-2

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<sup>28</sup> The data cited in this paragraph were retrieved the General and regional statistics-domain in Eurostat's (2007b) Dissemination Database.

<sup>29</sup> For ESS users, this problem is exacerbated by the fact that the regional level assigned to the respondents in the surveys varies across countries. See Appendix A for information on the regional level used to code the region variable in each country (this information can also be found in the ESS documentation reports, which can be downloaded from the ESS website, <http://ess.nsd.uib.no>). See Eurostat (2007c) for an overview of the regional levels 1-3 in EU, EFTA and candidate countries.

region with one of the highest incomes per person in the EU. But a substantial amount of the work force in the city commutes from the nearby regions of Schleswig-Holstein and Lower Saxony, thus contributing to the GDP of Hamburg without residing there. As a result, the GDP per person of Hamburg is overstated by about 20% relative to its effective population, while that of the neighbouring regions is understated. Similar arguments could be repeated for most metropolitan areas and many other types of data (ibid.).

And third, there have been a number of changes in the NUTS structure over the years. The reliance on the administrative divisions of countries means that changes in these lead to changes in the corresponding NUTS level. The regulation adopted in 2003 sought to limit the frequency of changes in the statistical regions, and amendments to the structure can now be made only every three years (European Union 2003: 1, 3). Still, past and future changes in the regional breakdown may cause problems for the comparability of regional data over time. Even though most agencies that publish regional data try to compile statistics in accordance with a stable regional breakdown, it is sometimes difficult to do this in practice. For example, all data in Eurostat's Regio Database respects the latest version of the NUTS, at least in principle.<sup>30</sup> Countries where the regional breakdown has changed between the latest and earlier versions are asked to supply Eurostat with historical data according to the latest classification. But national statistical offices are, unfortunately, often negligent about sending historical data, hence certain regional statistics may be lacking for some regions (Eurostat 2005: 14).

Furthermore, even when regional statistics are published in accordance with a stable regional classification, it may be difficult for ESS users to use them as contextual data. In the ESS datasets, the region variable, which places respondents by their region of residence, usually follows the nomenclature that was valid when the survey was carried out. This means that it may be difficult to get access to contextual data corresponding with the classification in the ESS datasets in cases where the regional breakdown in a country has changed after a survey has been conducted. For example, in the ESS 2002/2003 survey, the region variable is coded in accordance with the 1999 version of the NUTS structure, in which Finland was divided into six regions at level 2. After a major rearrangement of the regional division in Finland in 2003, the number of level 2 regions was reduced to five and the borders of most regions were redrawn (Eurostat 2005: 9). Since Eurostat only publishes regional data following the current version of the NUTS system, the changes in Finland means that it is now difficult to find contextual data

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<sup>30</sup> Similarly, the CivicActive project's election statistics are published in accordance with the 2003 version of the NUTS system.

that corresponds with the regional breakdown in the 2002/2003 survey.<sup>31</sup> This problem is likely to persist in the future, as the NUTS structure will change from time to time. A new nomenclature that will enter into force on 1 January 2008 will entail changes in several countries, leading to some differences between the regional breakdown in the first three rounds of the ESS and the classification that Eurostat will follow from 2008 onwards. The number of regions in each EU member state according to the new NUTS version is shown in Table 1.3.

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<sup>31</sup> Regional data corresponding with the former regional breakdown can still be found in databases maintained by Statistics Finland. But given the number of countries in Europe, differences in definition and language difficulties, using national statistical offices does not appear to be a feasible alternative for ESS users in general (see below).

**Table 1.3 Number of NUTS regions in EU countries and average population size, 2006 regulation**

Country	Level 1		Level 2		Level 3	
	No.	Av. pop. size	No.	Av. pop. size	No.	Av. pop. size
Austria	3	2 736	9	912	35	234
Belgium	3	3 482	11	950	<b>44</b>	237
Bulgaria	2	3 881	6	1 294	28	277
Cyprus	1	749	1	749	1	749
Czech Republic	1	10 221	8	1 278	14	730
Denmark	1	5 411	<b>5</b>	1 082	<b>11</b>	492
Estonia	1	1 347	1	1 347	5	269
Finland	2	2 618	5	1 047	20	262
France	9	6 903	26	2 390	100	621
Germany	16	5 156	<b>39</b>	2 115	<b>429</b>	192
Greece	4	2 771	13	853	51	217
Hungary	3	3 366	7	1 443	20	505
Ireland	1	4 109	2	2 055	8	514
Italy	5	11 692	21	2 784	<b>107</b>	546
Latvia	1	2 306	1	2 306	6	384
Lithuania	1	3 425	1	3 425	10	343
Luxembourg	1	455	1	455	1	455
Malta	1	403	1	403	2	201
Netherlands	4	4 076	12	1 359	40	408
Poland	6	6 362	16	2 386	<b>66</b>	578
Portugal	3	3 510	7	1 504	30	351
Romania	4	5 415	8	2 707	42	516
Slovakia	1	5 385	4	1 346	8	673
Slovenia	1	1 998	<b>2</b>	999	12	166
Spain	7	6 148	19	2 265	<b>59</b>	729
Sweden	<b>3</b>	3 004	8	1 126	21	429
United Kingdom	12	4 975	37	1 613	133	449
EU 27	<b>97</b>	5 053	<b>271</b>	1 809	<b>1303</b>	376

*Notes:*

Number of NUTS regions at levels 1, 2 and 3 according to the 2006 NUTS regulation, and average population size of the regions on 1 January 2005 (in thousands). Population data for France and the United Kingdom from 1 January 2004. The 2006 regulation will enter into force on 1 January 2008, and entails changes in the number of regions at one or more levels in eight countries (Belgium, Denmark, Germany, Italy, Poland, Slovenia, Spain and Sweden; changes indicated by figures in **bold**). Non-administrative levels are in grey.

*Sources:*

Adapted from Eurostat (2007a: 7-8). Population data from the General and regional statistics-domain in Eurostat's (2007b) Dissemination Database.

A possible solution to this problem could be to harmonise (e.g., aggregate or disaggregate) the available contextual data to bring them in accordance with the regional classification in the ESS surveys. But this would require detailed information on the changes in the nomenclature over the years, and such information is, unfortunately, not always available. Changes in the period 1981-99 are documented in Eurostat (2002), information on changes implemented as a result of the

adoption of the 2003 version of the NUTS system can be found on a separate Eurostat website,<sup>32</sup> and some of the subsequent changes are documented in Eurostat's annual series *European Regional and Urban Statistics: Reference Guide*. However, it is not always possible to trace from which region to which region a territory has been moved, nor is it possible to document the extent of the changes in terms of surface area or population. Furthermore, there have been a number of territorial changes that have not been reported, and though Eurostat has tried to compile a list of such changes this list is not complete (Eurostat 2002: 5).<sup>33</sup> It is therefore difficult to find a method of harmonising regional data in a way that would bring Eurostat's regional-level contextual data in accordance with survey data from the ESS.

### 1.3 The NUTS system and electoral districts

The harmonisation problem is further accentuated when it comes to regional election data. Not only are electoral districts subject to their own changes; they also rarely correspond with the NUTS structure. In a few cases, such as Norway, the electoral districts coincide with the NUTS 3 level, and in some cases electoral districts correspond with a lower level of the nomenclature, such as LAU 1 or 2. But electoral districts frequently maintain an entirely separate structure. Still, election authorities often publish results according to counties or municipalities, and as a result it is usually possible to get hold of data corresponding to the NUTS structure.

In order to adjust election data to the nomenclature, it is often necessary to aggregate or disaggregate the data. For some countries this is a fairly straightforward procedure, as in the case of Greece where 56 electoral districts can be aggregated to form the 51 level 3 units. In other cases, such as Belgium, both disaggregation and aggregation at fairly low levels must be performed only to attain results at level 2. But for some countries it is simply not possible to adjust election data to the NUTS system, since there is no overlap in electoral and administrative structures. Ireland is a case in point: the country is divided into two level 2 units and eight level 3 units, while electoral districts vary according to census polls.<sup>34</sup>

Aggregation of LAU 1 or LAU 2 data not only requires knowledge of which electoral units belong to which NUTS unit, but it can also easily become quite time-consuming, especially in the case of larger countries. Working with electoral data in a NUTS context thus poses the

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<sup>32</sup> See Eurostat (2007d). From the website it is possible to download a detailed correlation table from NUTS 1999 to NUTS 2003 and vice versa.

<sup>33</sup> This will probably be less of a problem with future changes, since the NUTS regulations oblige EU member states to inform Eurostat of any changes in the regional breakdown (European Union 2003: 3).

<sup>34</sup> Ireland and Malta periodically delimit their electoral districts, as the single transferable vote electoral system operates best with uniformly small multimember constituencies (IFES 2006).

dual challenge of both adjusting data and keeping track of changes in the boundaries of electoral districts.

## 1.4 Sources of regional data

Researchers can find regional data in two ways: either directly from national statistical offices, or from international organisations and statistics agencies. Many national statistical offices publish regional statistics on the internet, often free of charge. However, due to the number of national agencies, language difficulties, differences in definition and data collection and so forth, this does not appear to be a feasible alternative for most researchers. To most individual researchers, compiling a dataset with contextual data for all countries that participate in the ESS would simply be too time-consuming.

The easiest way to get hold of regional data is therefore to consult the data collections compiled by international organisations.<sup>35</sup> In general, international organisations do not publish data on a regional level, but Eurostat and the OECD are notable exceptions. Eurostat's Regio Database seems to be a particularly useful source, as it contains a fairly wide range of regional data.<sup>36</sup> The standard level of data availability is NUTS level 2. For certain variables, level 3 is also available, but generally this is the exception. The OECD has also compiled regional statistics, but the number of variables is much more limited.

Still, a potentially significant problem with using Eurostat as a source of regional data is that the geographical scope of the Regio Database is restricted: it contains data mainly for EU member states and, to a lesser extent, EFTA countries and candidate countries for membership in the EU. The availability of regional data for several eastern European countries – including some that participate in the ESS – is therefore rather limited. Researchers who need regional data for these countries must therefore consult the data collections maintained by the national statistical offices.<sup>37</sup>

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<sup>35</sup> Some research projects have also compiled regional statistics. CivicActive's elections archive, for instance, contains regional data on elections in over 30 European countries. See Section 4 in Part 2 for further details.

<sup>36</sup> The database covers the following areas: agriculture, demography, economic accounts, education, labour market, migration, science and technology, structural business, health, tourism, transportation and energy, and the environment. An overview of the available data is published annually in *European Regional and Urban Statistics: Reference Guide*.

<sup>37</sup> A list of national statistical offices, with links to their websites, is available from a website maintained by the United Nations Statistics Division, see ([http://unstats.un.org/unsd/methods/inter-natlinks/sd\\_natstat.asp](http://unstats.un.org/unsd/methods/inter-natlinks/sd_natstat.asp)).

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## Chapter 2: GDP statistics

This chapter examines some issues affecting the use of gross domestic product (GDP) data for comparative purposes, both over time and across countries. GDP is a widely used statistical measure and perhaps the most frequently used statistic for measuring economic growth. The measure has direct implications on political issues such as economic aid to countries and regions, and it is also commonly used as a proxy for assessing the development and level of well-being. Despite the progress that has been made in improving the comparability of GDP across countries, some differences in measurement persist (Ahmad et al. 2003:7). An assessment of the comparability of GDP can therefore be used to illustrate issues that are also relevant to other statistical measures.

After a brief outline of the definition and use of GDP, the chapter continues with illustrations of some of the comparability issues connected to the measure. Though there is a common conceptual framework with regards to how GDP should be measured, the implementation of this standard varies across countries. The following sections then consider some specific problems, such as attempts to measure the non-observed economy, procedures for converting national currency units into a common currency, the use of GDP as a proxy for well-being, and problems of measuring regional GDP.

It should be noted at the outset that the overall accuracy and comparability of GDP data are generally believed to be high, at least when it comes to developed countries. Ahmad et al. (2003:3) find that even though there are several measurement problems associated with the use of GDP, these do not affect the assessment of aggregate productivity patterns in the OECD area.<sup>38</sup>

### 2.1 Definition, use and sources

The gross domestic product is a measure of the value of all final goods and services produced by the residents of a country or region during a given time period (OECD 2006: 131). The most common way of understanding GDP is the expenditure approach, where GDP equals private consumption, plus investment, plus government spending, plus net exports (Begg, Fischer and Dornbusch 2003: 136-138). The starting point is an estimate of the value of output at current prices, or nominal GDP. Volume (real) GDP is corrected for year-to-year changes in the average

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<sup>38</sup> The problems do, however, influence more detailed assessment, e.g. concerning the separate accounts that make up GDP.

price level of the goods and services. In this way effects of price changes are eliminated, and it is possible to derive a consistent measure of changes in output.

The absolute level of GDP is used for calculating policy-level indicators such as the ratio of government deficit to GDP, and the ratio of research and development (R&D) expenditure to GDP. To measure economic performance, users normally look at the rates of growth of GDP, while for comparing relative well-being the level of GDP *per capita* is used.

Several international agencies publish GDP figures on a regular basis. The most widely used sources are the International Monetary Fund (IMF), the OECD, the World Bank, the Penn World Table, Eurostat, the United Nations Economic Commission for Europe (UNECE) and the United Nations Statistical Division (UNSD).<sup>39</sup> The scope is global for the World Bank, the IMF, the Penn World Table and the UNSD, while the OECD, the UNECE and Eurostat publish figures for their member states and sometimes some non-member states.

The figures published by the various institutions are generally fairly consistent with each other, but some scholars have pointed out that there may sometimes be fairly large discrepancies (Herrera and Kapur 2007: 370). A comparison of figures for GDP growth from five different sources illustrates this point. We collected similarly defined data for the annual change of real GDP in 40 European countries over the years 1995-2005, and examined whether there were any major differences between the figures.<sup>40</sup> In general, the data published by Eurostat (2007b), the OECD (2007), the UNECE (2007), the UNSD (2007) and the World Bank (2007) were consistent with each other. We ran a series of bivariate correlations, and in each instance the data from one source were highly correlated with the data from all the other sources.<sup>41</sup> However, there were many cases of small discrepancies between the sources. The data we collected contained information for 40 countries and 11 years, or 440 country-years. In 81 (or 18.4%) of these country-years, the difference between the figures published by at least two of the sources was greater than 0.6 percentage points.

The differences between the sources are illustrated by the figures for GDP growth in Estonia, Finland and Poland over the 1997-2005 period, shown in Table 2.1. In most instances, the figures published by the five agencies are very similar, and in the case of Poland they are almost identical. But for some countries there are marked differences between the various sources for a couple of years. For example, according to Eurostat, Estonia's GDP grew by 10.8%

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<sup>39</sup> Not all of these institutions calculate GDP independently. See Part 2 of this report for further information about the institutions and how to get access to their data.

<sup>40</sup> The comparison of the data is only meant to illustrate differences between the sources, and should not be interpreted as a systematic comparison of GDP data from various institutions.

<sup>41</sup> We ran 10 bivariate correlations and the weakest relationship, between the data from the UNECE and the UNSD, had a correlation coefficient of .965. The data we used and the results of all the correlations are available in Appendix B.

in 2000, almost 3 percentage points higher than the estimates published by the UNECE, the UNSD and the World Bank. The differences are generally so small that they would not have any significant effect on the results in a comparative analysis. Still, the comparison shows that there are some discrepancies between sources, so ESS users may want to check GDP data for consistency before incorporating them in their analyses.

**Table 2.1: Annual GDP growth rate in Estonia, Finland and Poland, 1997-2005. Percentages**

Country/source	1997	1998	1999	2000	2001	2002	2003	2004	2005
<u>Estonia</u>									
Eurostat	11,1	4,4	0,3	<b>10,8</b>	<b>7,7</b>	<b>8,0</b>	7,1	8,1	<b>10,5</b>
OECD	n.a.	n.a.	n.a.	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	n.a.	n.a.	<b>n.a.</b>
UNECE	11,1	4,4	0,3	<b>7,9</b>	<b>7,7</b>	<b>8,0</b>	7,1	8,1	<b>10,5</b>
UNSD	11,1	4,4	0,3	<b>7,9</b>	<b>6,5</b>	<b>7,2</b>	6,7	7,8	<b>9,8</b>
World Bank	11,1	4,4	0,3	<b>7,9</b>	<b>7,7</b>	<b>8,0</b>	7,1	8,1	<b>10,5</b>
<u>Finland</u>									
Eurostat	6,1	5,2	3,9	5,0	<b>2,6</b>	<b>1,6</b>	<b>1,8</b>	3,7	<b>2,9</b>
OECD	6,1	5,2	3,9	5,3	<b>2,5</b>	<b>1,6</b>	<b>1,9</b>	3,5	<b>3,0</b>
UNECE	6,1	5,2	3,9	5,0	<b>2,6</b>	<b>1,6</b>	<b>1,8</b>	3,7	<b>2,9</b>
UNSD	6,3	5,0	3,4	5,1	<b>1,1</b>	<b>2,2</b>	<b>2,4</b>	3,7	<b>2,1</b>
World Bank	6,2	5,0	3,4	5,0	<b>1,0</b>	<b>2,2</b>	<b>2,4</b>	3,6	<b>2,1</b>
<u>Poland</u>									
Eurostat	7,1	5,0	4,5	4,3	1,2	1,4	3,9	5,3	3,6
OECD	7,1	5,0	4,5	4,3	1,2	1,4	3,9	5,3	3,6
UNECE	7,1	5,0	4,5	4,3	1,2	1,4	3,9	5,3	3,6
UNSD	7,1	5,0	4,5	4,2	1,1	1,4	3,8	5,3	3,2
World Bank	7,1	5,0	4,5	4,2	1,1	1,4	3,8	5,3	3,5

*Sources:*

Eurostat (2007b), OECD (2007: annex table 1), UNECE (2007), UNSD (2007) and the World Bank (2007).

*Notes:*

Differences between at least two of the sources greater than 0.6 percentage points indicated by **bold**.

Eurostat: Real GDP growth rate (growth rate of GDP volume, percentage change on previous year).

OECD: Real GDP, percentage change from previous year.

UNECE: GDP growth rate over previous year (expenditure approach, national currency).

UNSD: GDP annual rate of growth (World Bank estimates).

World Bank: Annual percentage growth rate of GDP at market prices based on constant local currency.

## 2.2 Differences in estimating procedures<sup>42</sup>

The comparability of nominal GDP expressed in national currency units relies on the use of a common conceptual framework for measurement, the 1993 version of the international System of National Accounts (SNA 93), which has been produced under the joint responsibility of the United Nations, the IMF, the Commission of the European Communities, the OECD and the

<sup>42</sup> This section is based on Ahmad et al. (2003) if not indicated otherwise.

World Bank. This standard is now largely accepted and used throughout the world, with a few exceptions.<sup>43</sup> For the transition economies in central and eastern Europe, the years around 1990 represented a change in national accounting and price collection methods as a result of the shift from planned economy to market economy and the SNA 93 standard. For these countries there are often big jumps in the data from this time period. These jumps probably overstate real changes on the ground, but they do represent presently available national accounts information.

The European version of the SNA is the 1995 European System of Accounts (ESA 95), which is broadly consistent with the SNA 93.<sup>44</sup> The ESA is focused more on the circumstances and data needs in the European Union. Like the SNA, the ESA is harmonised with the concepts and classifications used in many other, social and economic statistics. Cases in point are statistics on employment, statistics on manufacturing and statistics on external trade. The ESA can therefore serve as the central framework of reference for the social and economic statistics of the European Union and its member states.

However, despite the existence of a common conceptual framework, some differences exist in the degree of implementation of the SNA/ESA. This is particularly the case between the United States, Europe and Japan, but differences also exist within the EU. Some of the main differences are outlined below.

*The treatment of financial intermediation services.* Banking services are a difficult area for statistical measurement since most services are not explicitly priced. In the SNA/ESA, the value of these services is estimated using the difference between interests received and paid, known as Financial Intermediation Service Indirectly Measured, or FISIM. This procedure is fairly uncomplicated; the problem is breaking it down between final consumers (households and governments) and intermediate consumers (businesses). Only the former has an impact on overall GDP, since only *final* goods and services are included when estimating the statistic. The SNA recommends that FISIM be broken down between final and intermediate consumers, but in practice different procedures have been followed in various countries. The United States, Canada and Australia have estimated such a breakdown for some time: in Europe and Japan the implementation of a breakdown was due to be implemented only in 2005. Various European countries implemented procedures for breaking down FISIM at different points in time, and as of June 2006, Cyprus, the United Kingdom, Croatia and Turkey had yet to adopt the practice. Eurostat has estimated that allocating FISIM to user sectors will contribute to an upward level

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<sup>43</sup> In Europe, Turkey still uses the older SNA 68 as standard.

<sup>44</sup> The ESA 95 was given a legal basis by the Council of the European Union in the form of a Council regulation on June 25, 1996. As of 2006, all OECD member countries except Turkey had adopted the new manual as the basis of their national accounts.

shift of roughly 0.5-2.0% in GDP. Some organisations, such as the OECD, provide adjusted figures that allow for comparison between countries.

*Measurement of investment in software* is another major issue when comparing GDP across countries. The SNA recommends that software expenditures be treated as investment when purchases satisfy conventional asset requirements. However, there are significant differences between countries when it comes to how this is done in practice, causing differences in software capitalisation rates and overall GDP estimates. While the amount of total software expenditures may be more or less similar, the amount of expenditures recorded as investment – and thus included in the GDP – may be significantly higher in some countries than others for purely methodological reasons.

*Military expenditure.* After 1996, the United States has included a wider range of expenditures on military equipment as government investment than recommended by the SNA. Other OECD countries follow the SNA on this matter, and only capitalise military expenditures that can also be used for civilian purposes. This has resulted in a systematic increase in the level of US GDP at current prices of approximately 2%.<sup>45</sup>

Measurement of nominal GDP, then, causes some problems when it comes to comparability across countries. Measuring real (or volume) GDP is harder still, as price and quality changes are taken into consideration. Two issues are of particular concern when estimating real GDP over time.

*Adjusting for quality change.* The US and some European countries apply very different methodologies when computing price indices for information and communication technology (ICT) products. The problem is to account for quality changes in these products in an adequate way, and unfortunately the procedures for quality adjustments are not based on internationally agreed-upon standards. This may affect the comparability of GDP across countries.

*Measuring real outputs in services* may be particularly demanding. First, it is difficult to measure exactly what, say, a lawyer produces, and how rapid changes in pricing schemes in the service sector should be compared over time. Second, in many countries important parts of the service sector – notably in education and the health and social services – do not operate on a market basis. Accordingly, the observed prices and fees do not cover costs to any significant degree, and measuring government output is therefore particularly difficult when estimating GDP (Boarini, Johansson and Mira d’Ercole 2006: 7). All countries have procedures for estimating the value of services produced, but there are some differences in their methodologies.<sup>46</sup> Thus, given

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<sup>45</sup> The OECD adjusts for this difference in methodology in the official annual national accounts.

<sup>46</sup> For a discussion of different approaches to measuring government output, see Atkinson (2005).

the nature of the service sector and given the difficulty in obtaining appropriate price and volume measures, it seems plausible that at least some of the differences in GDP are due to measurement differences.

### **2.3 Output and costs omitted in GDP**

The comparability of GDP is not only affected by differences in methodology across countries and over time. It is also affected by difficulties in incorporating factors that, in theory at least, should be included when calculating GDP.

Perhaps the most important issue in this respect concerns the non-observed economy (NOE), that is, the “economic activities which should be included in the GDP but which, for one reason or another, are not covered in the statistical surveys or administrative records from which the national accounts are constructed” (Blades and Roberts 2002: 4). The SNA is based on a broad view of economic activity – e.g. not making any distinction between legal and illegal activities – and in principle a wide range of activities that are difficult to observe should nevertheless be included in GDP estimates. Reasons why some activities are not recorded in statistical surveys or administrative files include:

1. Attempts to avoid paying taxes, social charges or other costs associated with the activity.
2. Activities involving illegal goods and services (e.g. narcotics and prostitution).
3. Production of goods for own use.
4. The “statistical underground”: statistical surveys and administrative records providing the basic data for the national accounts are sometimes incomplete.

Yet “non-observed” does not mean “non-measured” (ibid: 5). A wide range of techniques designed to measure the various activities that make up the NOE have been developed. These include making use of household expenditure surveys, tax audits and household electricity consumption (ibid; Lackó 2000). However, the fact that the non-observed part of total GDP has to be estimated using second-best methods, raises questions about the accuracy of total GDP figures. Also, the non-observed activities’ share of GDP varies significantly across countries, which may affect the comparability of GDP estimates.

Moreover, some studies assert that there are significant differences in the size of the “shadow economy” across countries. The shadow economy is all economic activity that has not been registered in the officially calculated (or observed) gross national product (Schneider 2002).

These macro-economic methods estimate the entire NOE using a single model. One such example is a currency demand model, which assumes that any growth in the cash to deposit ratio in excess of changes that can be explained by factors such as interest rates, changes in payment habits or growth of income levels, is due to the growth of the shadow economy. Another model suggests that the “true” GDP – the measured plus the “shadow” parts – grows in line with electricity consumption.

These methods estimate the non-observed economy to have a considerably greater share of GDP than the official estimates suggest. While the official non-observed share of GDP in 1998 for Ireland was estimated to 4% (UNECE 2003), Schneider’s (2002) macro-economic model estimated that an additional 16% was not accounted for in the GDP. The numbers for Latvia were 17 and 40%, respectively, and most countries in Schneider’s study showed similar discrepancies. Not only will the non-observed share of GDP vary considerably depending on which method is used to estimate it, but so will also the actual GDP, since the shadow economy is not measured in the official estimates. The macro-economic methods are controversial and most GDP figures do not take such estimates into account (Blades and Roberts 2002: 5), but they illustrate that it is important to study how GDP is calculated before making spatial comparisons.

Another issue that in theory should be included in estimates of GDP concerns *environmental pressures*, such as the state of biodiversity, declining fish stocks, lower quality of groundwater and urban air, and greater concentrations of chemicals in the environment and of greenhouse gasses in the atmosphere (Boarini, Johansson and Mira d’Ercole 2006: 23). GDP does not measure the sustainability of growth, and the costs incurred by environmental damages that may inhibit long-term growth are generally not recorded. Methods for adjusting national income for changes in the environment have been developed for national accounts, but are not widely used (OECD 2006: 142). This affects the quality of GDP as an accurate measure of economic growth. It also concerns the comparability of GDP across countries, since environmental damages are greater in some countries than in others.

Furthermore, even the economic impacts of global environmental problems, such as global warming, are likely to differ markedly across countries. The economic consequences of global warming are difficult to measure, and many of the most important issues have not been satisfactorily quantified for macro-economic analysis. Still, attempts at estimating the impact of climate change on GDP generally find noticeable differences across countries (e.g., Mendelsohn et al. 2000; Nordhaus and Boyer 1999; Stern 2006). Most studies find that low-income countries

suffer the most significant costs, while some high-income countries may actually benefit from a modest rise in average temperatures, at least on a temporary basis.<sup>47</sup>

## 2.4 Comparing national currency units

The use of GDP for comparative purposes depends on how national currency units are converted into a common currency. In general, two options are feasible: either the GDP figures of different countries can be converted into a common currency (e.g. US dollars) at *market exchange rates*, or they can be converted by taking the real *purchasing power* of national currencies into account.

For some purposes, such as assessing a country's capacity to repay foreign debt or its economic strength on the international market, GDP converted at market exchange rates may be the preferable statistical measure (Dowrick and Akmal 2005: 201). However, this solution is unsatisfactory for many other purposes – for example in measuring inequalities in living standards – since exchange rates reflect many more influences than the direct price comparisons that are needed to make meaningful comparisons of GDP between countries (Schreyer and Koechlin 2002: 1). International currency markets tend to undervalue the domestic purchasing power of currencies of low-income countries. As a result, prices are usually lower in poorer economies, meaning that a dollar of spending in for example China is worth a lot more than a dollar in the United States. On an exchange-rate-based comparison, the share of China in world GDP in 2003 was close to 4%, while a computation based on purchasing-power parities (PPPs) puts the figure at around 12% (Castles and Henderson 2005: 21). Supported by examples of China's share in global output in selected products and services in agriculture, industrial commodities, communications and energy, Castles and Henderson (2005) claim that the PPP calculation is the more accurate in showing the real size of the Chinese economy.<sup>48</sup>

According to Schreyer and Koechlin (2002: 1), PPPs, in their simplest form, can be thought of as “price relatives, which show the ratio of the prices in national currencies of the

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<sup>47</sup> Nordhaus and Boyer (1999) estimates that the impacts of a 2.5 °C global warming range from a net benefit of 0.7% of output for Russia to a net damage of almost 5% for India, though they emphasise that attempts to estimate impacts of climate change remain highly speculative. Mendelsohn et al. (2000) find that the largest benefits as a fraction of GDP occur in Asia, the former Soviet Union and North America, while western Europe, Africa, Latin America and Oceania are more likely to suffer damages. However, a more recent review by Stern (2006) finds that the monetary cost of climate change may be expected to be higher than suggested by these studies. Stern argues that earlier estimates omit several important factors and that they base their calculations on levels of global warming that may be too low (ibid: 146-149). Stern, while emphasising the uncertainty of the calculations – estimates that the cost of climate change may lie in the upper part of the range 5-20%, and that poor countries will suffer the highest costs (ibid: 144).

<sup>48</sup> For example, China produced 12% of the world's energy and accounted for 18% of the world's mobile phone subscribers in 2002 (Castles and Henderson 2005).

same good or service in different countries.” The PPPs used by international statistics agencies are generally calculated on the basis of so-called benchmark studies, which are surveys of identical sets of goods and services in many countries.<sup>49</sup>

Based on the survey results, price parities are computed for a number of detailed categories covering all the sub-components of GDP. The estimates of each country’s detailed-category expenditures are then used as weights in some form of aggregation procedure to calculate various countries’ overall PPPs and the price parities of the components of GDP (Heston and Summers 1996: 20).

However, it is important to note that there is no “right” and universally acknowledged way of measuring PPP (Rogoff 1996: 649). Dowrick and Akmal (2005: 224-225) maintain that “[there] is no unique concept of purchasing power, and there are substantial differences in the methods underlying the construction of widely used data sets which attach this label to their income measures”. Commenting on the use of national accounts statistics at PPP from the Penn World Table (PWT), one of the major sources of PPP data, Neary (2004: 1424) argues that while many researchers have used the table, few “have asked what exactly the numbers mean, and those who have considered the question have mostly advocated very different methods for calculating real or purchasing-power-parity-corrected incomes”. Though the technical definitions of PPP may seem mundane, they are of great significance. The European Union makes the allocation of its structural funds on the basis of PPP-converted GDP per capita. These funds, which aim to reduce economic disparities between and within the EU’s member states, make up more than a third of the union’s total budget. How the PPP is calculated therefore has direct political implications.

Several studies have found fairly large discrepancies between different estimating procedures (Ackland, Dowrick and Freyens 2004; Dabán, Doménech and Molinas 1997; Dowrick and Akmal 2005; Hill 2000; Neary 2004).<sup>50</sup> An example illustrates this point. The most common additive method of computing PPP is the Geary-Khamis (GK) method, used by the PWT and previously also by the OECD and the International Comparison Programme (ICP). Hill (2000: 145) defines a PPP method as additive “if its quantity indices literally add up over

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<sup>49</sup> The first benchmark study was conducted around 1970, after the establishment of the International Comparison Programme (ICP) in 1968 as a joint venture of the United Nations and the International Comparisons Unit of the University of Pennsylvania. Since then, the ICP has coordinated benchmark studies in a large number of countries at five-year intervals (Heston and Summers 1996: 20). In addition, Eurostat conducts surveys on an annual basis and the OECD on a three-yearly basis (Schreyer and Koechlin 2002: 6). There are also examples of much less complicated ways of computing PPPs, such as The Economist’s Big Mac Index, in which the “Big Mac PPP is the exchange rate that would leave a burger in any country costing the same as in America” (“Food for thought”, The Economist, 29 May 2004).

<sup>50</sup> The discrepancies are greatest between countries at different levels of development; countries at the same income-level are less sensitive to differences in methodology (Heston and Summers 1996: 22).

different levels of aggregation when measured in value terms”. Additivity is a useful property if international comparisons are made at varying levels of aggregation, for example in national accounts comparisons (ibid: 148). However, the so-called Gerschenkron effect implies that additive PPP methods are systematically biased, in that they tend to overestimate the per capita GDP of “countries whose relative prices differ substantially from the reference prices used in comparison” (ibid: 152). If the reference price is similar to that of a high-income country – as in the Geary-Khamis method – inequalities expressed as GDP at PPP will tend to be underestimated. Several studies thus find that the PWT overestimates the per capita GDP of low-income countries relative to high-income countries, in some cases by as much as 70% (Hill 2000; see also Dowrick and Akmal 2005).

Ackland, Dowrick and Freyens (2004: 31) therefore conclude that PPP measures that rely on the Geary-Khamis method are not appropriate measures of global poverty. Instead, they favor the non-additive EKS method currently used by Eurostat and the OECD, which, they argue, does not exhibit any “systematic bias and appears to be appropriate for assessing the extent and distribution of poverty” (ibid.) Nevertheless, the choice between the various methods is not necessarily that simple. The *ICP 2003-2006 Handbook* argues that

When comparing GK and EKS results (...) the difference between them should not automatically be entirely attributed to bias in the GK index. Given the difficulty in establishing firm general theoretical conclusions about multilateral indices, some caution needs to be exercised when trying to justify the use of one kind of multilateral index rather than another by appealing to the supposed theoretical properties of the indices. (ICP 2007: Chap.12: 19)

There are also other problems associated with estimating PPPs, some of which may have an impact on the comparability between countries (Heston and Summers 1996: 21-24). First, the quality of the benchmark comparisons is dependent upon the quality of the countries’ national accounts and the quality of the benchmark studies’ price surveys. Second, the great variation in goods and services across countries makes it difficult to find identical or equivalent products to compare in all countries. Third, not all countries are included in the benchmark studies, and some countries that have been included have only participated in some of them. The estimates for the non-benchmark countries are even more uncertain than those for benchmark countries, and Heston and Summers (1996: 24) reckon that they are probably subject to double the errors inherent in the benchmark ones. In general, taking both benchmark and non-benchmark countries into account, they find that “rich countries comparisons are likely to be correct within say 5-10%; comparisons of poor countries with rich ones may be subject to errors twice as great”

(ibid: 22). Furthermore, comparisons over time often face the problem of changing products and consumption patterns, especially when the years of comparisons are remote (Shcreyer and Koechlin 2002: 2).

Nonetheless, the problems should not discourage researchers from using national accounts statistics measured at purchasing-power parity. Even though there is some uncertainty associated with the estimation procedures, GDP converted by using PPPs is generally better suited for comparative purposes than GDP converted at market rates.

## **2.5 GDP as a proxy for well-being**

GDP is frequently used to measure a country's economic performance, yet on many accounts it is seriously flawed when used as a proxy for well-being. "Well-being" is a complex concept and definitions differ, but it is generally associated with concepts such as prosperity, health and happiness (OECD 2006: 130). As such, it is clear that there is no a priori reason to assume that GDP should be the best measure of general well-being in a country. In fact, it is not even the best indicator of the monetary aspects of living standards. A better measure would be gross national income (GNI), which is computed by adding net income from abroad to GDP. Most countries' rank by GNI per capita is similar to that by GDP, but there is at least one important exception in the OECD area: Ireland's GDP per capita is one of the highest in the OECD, but because of large net outflows of investment income, its GNI per capita is only around the OECD average (Boarini, Johansson and Mira d'Ercole 2006: 8).

Furthermore, even GNI is an imperfect measure of people's welfare. When incorporating other aspects of well-being – e.g. income inequality, equity, health, social cohesion and happiness – the use of GDP becomes even more problematic. While there is often a positive correlation between GDP and alternative measures of well-being, on some dimensions the association is not very strong (ibid.). This implies that when used as a gauge of living standards in general, the comparability of GDP is open to discussion even in cases where there are no differences in methodology or errors in the estimating procedure of GDP as such.

## **2.6 Regional GDP**

Regional GDP is based on unit transactions that are within a specific regional territory. Eurostat calculates regional GDP for the EU-27 plus Norway and Switzerland at NUTS levels 2 and 3. How regional GDP is conceptualised and measured can be of great political importance. As mentioned earlier in this chapter, the European Union spends a large share of its budget on the

Structural and Cohesion Fund. For the period 2007-2013 the budget is €308 billion, representing over a third of the overall EU budget (ESF 2007). The objectives of the fund are to support economic convergence of the poorest member states and regions, encourage cross-border and transnational cooperation, and improve skills and competitiveness in the union's regions. When the European Commission decides which regions are eligible for economic aid, it is based on regional GDP per capita.

Regional GDP is either calculated through top-down methods, bottom-up methods, or a mix of the two. With the top-down methods, national accounts are spread out on the country's regions by means of a distribution key which reflects as closely as possible the feature to be estimated (European Union 1996). Bottom-up estimation methods make use of information on units that are resident in the region, and ascend by addition until the regional value of the aggregate is established. In practice, a mix of the methods is applied. In the EU, it may occur that the bottom-up method only is available at the NUTS 1 level, while regionalisation of the NUTS 2 and NUTS 3 levels must be calculated by applying top-down methods.

A disadvantage concerning the top-down methods is that the estimate of the regional value is not calculated from direct data, but from a key that is assumed to correlate with the subject of interest. Bottom-up methods are closer to the subject of interest, but challenges are present here as well, with regards to conceptualisation. First, for multiregional institutional units – i.e. units where economic interests exceed one region – balancing items correctly may be hard. Many corporations are in this situation. For some units it is impossible, as is the case for most distributive and financial transactions.

Second, households are in ESA 95 defined as uniregional units with economic interest in the region where they live, and not the region where they work. This definition allows the GDP per inhabitant figures to be significantly influenced by commuter flows. Net commuter inflows in major European city regions push up production to a level that could not be achieved by the active resident population on its own. The result is that GDP per inhabitant can be overestimated in these regions and underestimated in regions with commuter outflows. In 2004 the three top ranking level 2 regions were Inner London (303% of average), Grand Duchy of Luxembourg (251%), and Brussels (248%), while the poorest regions were Nord-Est (24%) in Romania, and Severozapaden, Yuzhen Tsentralen, and Severen Tsentralen in Bulgaria (all 26%) (Eurostat 2007a). The difference between top- and bottom-ranking regions would have been smaller if commuters had not boosted the per capita GDP of the richest regions.

## 2.7 Summary

This chapter has shown that several factors affect the comparability of a GDP across countries. Although internationally standardised estimation procedures have been agreed upon, there are still some differences across countries with regards to the implementation of these procedures. The comparability of GDP is also affected by the difficulties of incorporating the non-observed economy into the GDP figures, as well as the method used to convert national currency units into a common currency. Particular estimation difficulties exist for regional GDP as commuters cross their region of residence for work, and multiregional institutions have economic interests in more than one region.

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## Chapter 3: Unemployment statistics

Unemployment statistics are widely used in international comparisons, for example as a measure of economic performance and as an indicator of the extent of social problems.<sup>51</sup> However, unemployment is frequently defined and measured differently in various countries, and it is therefore necessary to adjust national unemployment data to a common standard in order to ensure comparability. This chapter examines how national unemployment figures are adjusted, and discusses briefly to what extent the resulting standardised or harmonised data are truly comparable across countries. The purpose is not to describe all the differences in definition and measurement that may affect comparability across countries. Rather, the purpose is to illustrate and exemplify how national standards vary, and how these differences may be adjusted to a common basis.

The chapter is organised in three sections. Section 1 explains how unemployment is defined and measured according to the international definition. Section 2 illustrates how national unemployment figures at country level are adjusted to the common standard, while the third section examines unemployment data at a regional level.

### 3.1 Measuring unemployment

#### 3.1.1 The ILO definition of unemployment

Generally speaking, labour force statistics can be collected in two ways: through sample surveys of households or individuals (often called labour force surveys, LFS) or through establishment surveys and administrative records. There is general agreement that labour force surveys constitute the desirable source for international comparisons of unemployment, since administrative records do not cover all persons who may be unemployed and since administrative regulations differ greatly across countries (Sorrentino 2000: 6).<sup>52</sup> Yet even when labour force surveys are used, the question of how best to define and measure unemployment is controversial (Battistin, Rettore and Trivellato 2007; Brandolini, Cipollone and Viviano 2006; Jones and Riddell

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<sup>51</sup> The European Union, for instance, uses unemployment statistics (in addition to GDP data) as an indicator of regional disparities in well-being within and across its member states (Stewart 2005).

<sup>52</sup> Consider the unemployment rates of Armenia and Azerbaijan as an example. According to the UNECE database, the unemployment rate in the two countries – based on administrative records data – was 11% (in 1997) and 1.4% (2003), respectively (UNECE 2007). Labour force surveys, however, put the figures substantially higher, at 36.4% in Armenia and 10.7% in Azerbaijan in the same years (Nesporova 2002: 16; IMF 2004: 5). Still, data from administrative records may be useful in some cases, such as studies of regional differences within the same country (see, for example, Maierhofer and Fischer 2001). See Pember (1998) for a discussion of labour statistics based on administrative records.

1999), and there are significant differences when it comes to how countries resolve this issue (Capdevielle and Sherwood 2002; Sorrentino 2000).

In order to facilitate comparisons across countries, the International Labour Organisation (ILO) provides recommendations on definitions and measurement of unemployment. The ILO criteria divide the adult population into three mutually exclusive groups: the employed, the unemployed and the inactive (i.e., people not in the labour force). The *employed* comprise people who, during a specified reference period, were engaged in paid employment or self-employment, or who were temporarily absent from such employment (Husmanns 2007: 8-9). The *unemployed* are defined as people above a specific age who (a) were not in paid employment or self-employment during the reference period, (b) were immediately available (i.e., able and ready) to start working, and (c) had taken specific steps to seek paid employment or self-employment (ibid: 13-14). People who were neither employed nor unemployed during the reference period are considered *inactive* and are excluded from the labour force.

The ILO guidelines have become the accepted norm in many countries, and the classifications used in most labour force surveys are now broadly similar in outline, though not in all of their details. Since the guidelines are decided by periodic international conferences of labour statisticians attended by representatives from national governments and NGOs, they are sometimes deliberately vague or provide options in order to achieve consensus (Holmlund 2005: 9-10; Sorrentino 2000: 4). This has led to some differences in the way the criteria are implemented and interpreted in various countries, in particular concerning how to distinguish between the unemployed and the inactive. Furthermore, in some areas the ILO definition has not been followed at all by some countries.<sup>53</sup> As a consequence, official labour market statistics, such as national unemployment rates, are not necessarily comparable across countries. Even within Europe, some EU member countries deviate from the interpretation of the ILO standard recommended by the EU when producing their own official unemployment statistics (Capdevielle and Sherwood 2002: 8).

### 3.1.2 International unemployment statistics

The ILO recommends that countries that choose to deviate from the international definitions collect data that permit conversion from national to international standards. Although not all

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<sup>53</sup> The most important areas where the criteria are either interpreted differently or not followed at all regard the treatment of students, persons on layoff, persons with future engagements and unpaid family workers. In addition, there are some differences when it comes to the length of the reference period, the lower age limits, the number of hours worked during the reference period to be classified as employed, the interpretation of “current availability”, and the treatment of conscripts and career members of the armed forces (Lepper 2004: x).

countries do this, it is often possible to adjust data from the national statistical offices to a common conceptual basis. The resulting standardised or harmonised labour market statistics are intended to provide a better basis for comparisons across countries than the figures published by the national statistical offices (ibid: 3).

Four organisations – the US Bureau of Labor Statistics (BLS), the OECD, the ILO and Eurostat – have established international comparison programmes in order to provide more comparable unemployment data.<sup>54</sup> As far as possible, these organisations adjust national data on unemployment to a common conceptual basis. The BLS programme adjusts the data to US concepts, while the other three adjust their data to ILO concepts, with some variation in interpretation. In the past, the standardised data published by the four organisations were quite different for some countries, but in recent years the rates have converged and are now nearly identical.

The BLS programme is the longest running – starting in the 1960s – but it has the smallest coverage, currently including only ten developed countries. Eurostat's harmonised unemployment rates series, which was first published in the late 1980s, covers the member states of the EU and EFTA and some EU candidate countries. Eurostat has introduced a European Union Labour Force Survey (EU LFS), and in recent years a more harmonised questionnaire has been implemented in the member countries.<sup>55</sup>

The OECD's standardised unemployment rates (SURs) were first published in the early 1980s, and cover most of the organisation's member countries. In 1996, the OECD adopted the comparable unemployment rates produced by Eurostat for the EU countries (and later also for Norway) and revised its historical series to be in accord with Eurostat. The OECD SURs are therefore, in theory, identical with the Eurostat harmonised unemployment rates for these countries. The SURs are the only OECD labour force data that are adjusted for comparability (Capdevielle and Sherwood 2002: 13).

The ILO's comparable unemployment rates series is unique in its coverage of both developed and developing countries, currently 30 countries in all. The data are available online in the Laborsta database and published in the *Bulletin of Labour Statistics*. The programme presents a set of 11 basic indicators in relation to employment and unemployment, collected from national labour force surveys. For each country, documentation is provided on the source, concept

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<sup>54</sup> The information on the four programmes presented here is based on an overview in Sorrentino (2000: 17-20), if not specified otherwise.

<sup>55</sup> The introduction of the harmonised questionnaire has, however, caused a break in the time-series in some countries. See, for example, Statistics Norway (2006) and Johansson (2005).

differences between the national and international definition, and the adjustments made by the ILO to calculate the comparable figures.

Several other organisations and agencies also provide data on unemployment, collected from national statistical offices through standardised questionnaires and presented in a common framework.<sup>56</sup> The data are usually published with some documentation on sources and methods. However, users of the data should note that a standardised presentation of unemployment statistics does not always imply that the data are truly comparable. Important differences exist between countries in the matter of general concepts, classification and data collection, and, with the exception of the four organisations mentioned above, unemployment figures are rarely adjusted for comparability (Capdevielle and Sherwood 2002: 11). Hence seemingly comparable unemployment rates are often presented in the same table or variable, when in fact there are substantial differences in definitions and methods of data collection across countries. Some organisations even present unemployment figures based on labour force surveys and administrative records in the same table, even though data from the two sources cannot be meaningfully compared across countries.

The adjusted figures published by the BLS, the ILO, the OECD and Eurostat are therefore the only unemployment data that are suited for comparative purposes. Still, a major drawback with the statistics published by the four organisations is that the geographical coverage is limited to western European and some central European countries. Hence the availability of comparable unemployment data for countries in the Balkans and eastern Europe is rather limited. The only organisation with a fairly comprehensive coverage of these regions is Eurostat, which publishes general statistics on eastern European countries in a separate domain in the Dissemination Database.<sup>57</sup> However, there are some problems with the unemployment data published in this domain. First, Eurostat only publishes rates, not absolute figures. Second, data are only available at country level, not at regional level. And third, the documentation is not very detailed, making it difficult to assess whether the data are comparable with statistics for EU member countries.

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<sup>56</sup> Organisations providing international labour market data include the World Bank, the UNECE, and the UNSD. See Part 2 for a presentation of data providers.

<sup>57</sup> The OECD's SURs are only available for OECD member countries, while the ILO comparable estimates do not cover a number of western and eastern European countries. The countries covered in Eurostat's separate domain for eastern Europe and the Balkans are: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Kosovo, Macedonia, Moldova, Montenegro, Romania, Russia, Serbia, Turkey and Ukraine.

### 3.1.3 The comparability of harmonised unemployment statistics

How comparable are the harmonised unemployment statistics published by the BLS, the OECD, the ILO and Eurostat? All the comparative programmes acknowledge that some differences in definition remain for which adjustments are not made. This can be either because they are believed to be too small to have a significant impact, or because there are insufficient data to make regular and reliable adjustments (Capdevielle and Sherwood 2002: 8-9; Sorrentino 2000: 3). Another problem that may influence comparability is that the quality of the data compiled from national statistical offices sometimes varies. Like all sample surveys, labour force surveys are subject to problems of reliability (Bound, Brown and Mathiowetz 2001: 3791-3799), and if there are substantial differences in data quality across countries, the comparability of the data is likely to be affected. Users of the data should therefore bear in mind that even the harmonised unemployment data are not necessarily strictly comparable.

Furthermore, even in cases where unemployment is defined and measured in the same way across countries, several *non-conceptual* differences may have an impact on comparability. First, the division of the non-employed into unemployed and inactive may sometimes be rather arbitrary and ambiguous: several studies have shown that this issue is sensitive to minor differences in questionnaire design and the respondents' circumstances (Jones and Riddell 1999: 148). Second, differences in economic cycles may also affect comparability. In countries with persistent high unemployment, people without jobs may stop looking for a job – and hence be counted as inactive rather than unemployed – because they believe no jobs are available (*ibid.*).

And third, some scholars argue that measurement of unemployment is highly sensitive to social arrangements and norms outside the labour market. For example, in many less developed countries, a low unemployment rate may mask a large number of persons in unstable, marginal jobs. Low unemployment may therefore reflect the need for people to subsist through any work at all, rather than a situation of full employment. In more developed countries, such work may not be understood as real employment, and unemployment is considered to be a situation that can be sustained for a longer period of time. Accordingly, it may be difficult to interpret differences in unemployment rates between countries at different levels of development (Howell 2004: 4-7).<sup>58</sup>

In sum, then, both conceptual and non-conceptual differences may affect the comparability of unemployment statistics. Nonetheless, the harmonised unemployment figures

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<sup>58</sup> See Martin (2000) for an analysis of how this issue affects the comparability of unemployment rates between Mexico and the United States.

published by the BLS, the OECD, the ILO and Eurostat are clearly the best data available for comparative purposes.

### **3.2 Harmonising unemployment statistics**

The process by which unemployment data are harmonised across countries is best illustrated by an example. This section will therefore examine to what extent national unemployment rates diverge from the harmonised rates, and how the national data are adjusted to a common conceptual standard.<sup>59</sup> Table 3.1 presents the unemployment rates in the Sweden, Norway and the Netherlands in selected years in the 1995-2006 period, according to five different sources (four for Norway).

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<sup>59</sup> The unemployment rate represents unemployed persons as a percentage of the total number of active persons in the labour market.

**Table 3.1 Unemployment rates in Sweden, Norway and the Netherlands, selected years. Yearly averages**

Country/source	1995	2000	2002	2004	2006
<u>Sweden</u>					
Statistics Sweden	7,7	4,7	4,0	5,5	5,4
ILO	9,2	5,9	5,2	6,6	n.a.
OECD	8,8	5,6	4,9	6,3	7,0
Eurostat	8,8	5,6	4,9	6,3	7,0
BLS	9,1	5,8	5,1	6,6	7,0
<u>Norway</u>					
Statistics Norway	4,9	3,4	3,9	4,5	3,4 (b)
ILO	4,9	3,4	3,9	4,5	n.a.
OECD	5,4	3,4	3,9	4,4	3,5
Eurostat	4,9 (b)	3,4	3,9	4,4	3,5
<u>Netherlands</u>					
Statistics Netherlands	n.a.	n.a.	4,1	6,5	5,5
ILO	7,1	2,9	3,2	5,1	n.a.
OECD	6,6	2,8	2,8	4,6	3,9
Eurostat	6,6	2,8	2,8	4,6	3,9
BLS	7,1	2,9	3,2	5,1	4,5

*Notes:*

Eurostat: Harmonised unemployment rates

OECD: Standardised unemployment rates (SURs)

BLS: Comparative unemployment rates (BLS does not calculate unemployment rates for Norway)

ILO: ILO-Comparable unemployment rates

National statistical offices: Unemployment rates, national definition

(b) Break in series (as indicated by the source)

*Sources:*

Eurostat (2007a), OECD (2007), BLS (2007), ILO (2007), Statistics Sweden (2005b, 2007), Statistics Norway (2007) and Statistics Netherlands (2007).

At first glance, two things are worth commenting on this table. First, the unemployment rates published by Statistics Sweden and Statistics Netherlands consistently deviate from the harmonised and standardised rates, while the rates published by Statistics Norway are virtually identical with them. This is due to the fact that the Norwegian definition of unemployment follows the ILO standard closely, while the other two countries have decided to deviate from the

international definition.<sup>60</sup> Second, the comparable figures published by the ILO, the OECD, Eurostat and the BLS are broadly similar, but not always identical.<sup>61</sup>

The national unemployment rates for Sweden are in each instance significantly lower than the rates adjusted to the international definition. The difference varies from 0.8 to 1.6 percentage points, and is usually around 1 point. The main reason for this is that full-time students who satisfy the criteria for being classified as unemployed (i.e., without work, available for work and seeking work) are not classified as unemployed according to the national Swedish definition of unemployment. Instead, this group is included in the figures for the economically inactive. However, data on full-time students seeking work are collected in the Swedish LFS, and this makes it possible to adjust the unemployment rates to the international definition. As Table 3.2 shows, the discrepancy between the ILO and Statistics Sweden data on the total labour force and the number of unemployed is almost<sup>62</sup> completely identical with the number of full-time students seeking work.

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<sup>60</sup> There are some minimal differences in the Norwegian way of measuring unemployment and Eurostat's recommendations, at least before the introduction of a new, EU harmonised LFS in 2006. The adoption of the new LFS entailed a change in the lower age limit from 16 to 15 years. In addition there were some changes concerning the interpretation of the availability criterion and the work-seeking criterion, and in the way persons on layoff and persons with future engagements were treated (Statistics Norway 2006).

<sup>61</sup> The OECD and Eurostat figures are identical, with the exception of the data for Norway in 1995. The reason for the close similarity is that OECD adopted the comparable unemployment rates produced by Eurostat for the EU countries (and later also for Norway) in 1996.

<sup>62</sup> There are small dissimilarities in the figures for 2002 and 2005.

**Table 3.2 Labour force data, Sweden 2001-2005. Thousands**

Variable/source	2001	2002	2003	2004	2005
<u>Total labour force</u>					
Statistics Sweden	4 414,0	4 421,0	4 450,0	4 459,0	4 533,0 (b)
ILO	4 465,0	4 478,0	4 496,0	4 512,0	4 622,0 (b)
Eurostat	4 542,0	4 552,5	4 574,7	4 585,6	4 706,5 (b)
<u>Total employment</u>					
Statistics Sweden	4 239,0	4 244,0	4 234,0	4 213,0	4 263,0 (b)
ILO	4 239,0	4 244,0	4 234,0	4 213,0	4 263,0 (b)
Eurostat	4 318,1	4 323,9	4 314,4	4 290,0	4 346,7 (b)
<u>Full-time students seeking work</u>					
Statistics Sweden	51,0	57,0	46,0	53,0	89,0 (b)
<u>Unemployed</u>					
Statistics Sweden	175,0	176,0	217,0	246,0	270,0 (b)
ILO	226,0	234,0	263,0	299,0	360,0 (b)
Eurostat	223,9	228,6	260,3	295,5	342,8 (b)

*Notes:*

Statistics Sweden: Population covered: all persons aged 16-64 years, including career and conscript members of the armed forces. Data according to national definition.

ILO: Population covered: all persons aged 16-64 years, including career and conscript members of the armed forces. Data adjusted to the ILO definition.

Eurostat: Population covered: all persons aged 15-74 years, including career but excluding conscript members of the armed forces. Data adjusted to Eurostat's definition.

(b) Break in series (as indicated by the source)

*Sources:*

ILO (2007), Eurostat (2007a) and Statistics Sweden (2002, 2003, 2004, 2005a, 2006).

The discrepancies between the figures published by Eurostat and Statistics Sweden are caused by several differences in definition and measurement, and not only the inclusion or exclusion of full-time students. The age coverage of Eurostat's figures is broader than that of Statistics Sweden (and the ILO): the former includes persons aged 15 to 74 years, while the latter only includes persons aged 16 to 64. Another difference between the sources is that Statistics Sweden and the ILO, in line with the ILO criteria, include both career and conscript members of the armed forces as employed, and thus as part of the total labour force. Eurostat only includes career members of the armed forces.<sup>63</sup> There is also a difference in the primary source used by the

<sup>63</sup> Until April 2005, there was also another difference between the Swedish and the international measurement of unemployment. Before that date, respondents were asked whether they would have wished to have a job during the reference week. Respondents who answered no to that question were not asked any further questions about employment/unemployment, and consequently they were not classified as unemployed. With the introduction of a new, EU harmonised LFS in April 2005 this filter question was removed (Johansson 2005: 1). However, since the old LFS did not ask this group any further questions about employment, it was not possible to adjust for this difference.

various agencies: Eurostat relies mainly on the European Union Labour Force Survey (the EU LFS), and only uses the national labour force surveys as supplements to this survey. Nonetheless, the overall trend is the same in the ILO and Eurostat data: the inclusion of full-time students seeking work among the unemployed entails that the level of unemployment is substantially higher according to the harmonised figures than according to the national definition.

While the unemployment rates by the Swedish national definition are consistently lower than the international one, the reverse is the case with the Dutch data. This is due mainly to two differences between the Dutch and the ILO definitions of employment and unemployment. First, since 1992, Statistics Netherlands has used a definition of employment that includes only persons who work 12 hours or more per week and a definition of unemployment that includes only persons seeking 12 hours of work or more per week. Those working from one up to 12 hours, or seeking only such work, are not classified in the labour force. The second difference pertains to the availability criterion. The international definition requires prompt (within two weeks) availability for the labour market; according to the Dutch definition a period of three months is allowed (Statistics Netherlands 2007).

The first difference lowers the number of both employed and unemployed in the Statistics Netherlands data in comparison with the international data, while the second difference increases the number of unemployed. This can be seen in Table 3.3, which shows data from Statistics Netherlands, Eurostat and the ILO for the size of the total labour force and the total number of people in employment and unemployment.

**Table 3.3 Labour force data, the Netherlands 2001-2005. Thousands**

Variable/source	2001	2002	2003	2004	2005
<u>Total labour force</u>					
Statistics Netherlands	7 272,0	7 337,0	7 401,0	7 398,0	7 401,0
Eurostat	8 251,5	8 399,5	8 431,9	8 492,9	8 513,1
ILO	7 964,0	8 126,0	8 187,0	8 200,0	8 214,0
<u>Total employment</u>					
Statistics Netherlands	7 020,0	7 035,0	7 001,0	6 919,0	6 918,0
Eurostat	8 068,7	8 168,0	8 121,4	8 105,8	8 110,9
ILO	7 830,0	7 867,0	7 830,0	7 782,0	7 784,0
<u>Unemployed</u>					
Statistics Netherlands	252,0	302,0	399,0	479,0	483,0
Eurostat	182,9	231,5	310,5	387,1	402,1
ILO	221,0	259,0	357,0	419,0	430,0

*Notes:*

Statistics Netherlands: Population covered: all persons aged 15-64 years, including career and conscript members of the armed forces. Data according to national definition.

ILO: Population covered: all persons aged 16-64 years, including career and conscript members of the armed forces. Data adjusted to the ILO definition.

Eurostat: Population covered: all persons aged 15-74 years, including career but excluding conscript members of the armed forces. Data adjusted to Eurostat's definition.

*Sources:*

ILO (2007), Eurostat (2007a) and Statistics Netherlands (2007).

The table shows that in comparison with the international definition, the size of the labour force is smaller and the number of unemployed is larger when measured according to the national definition. Hence the higher unemployment rate in the official figures from Statistics Netherlands. The table also shows, however, that there are some differences in the numbers according to the international definition published by Eurostat and the ILO. As with the Swedish case, this is due to minor differences in definition and the primary source: Eurostat has broader age coverage, excludes conscripts from the labour force, and relies mainly on the EU LFS.

### 3.3 Regional unemployment statistics

Apart from the national statistical offices, Eurostat and the OECD are the only institutions that regularly publish labour force statistics at a regional level. Eurostat publishes data at NUTS levels 1, 2 and 3, though for some variables data are only available at level 2.<sup>64</sup> Down to level 2, the labour force data are derived directly from the EU LFS. The procedure is somewhat different

<sup>64</sup> See the Chapter 1 for a description of the NUTS system.

when it comes to data on level 3. The national statistical offices or other relevant institutions provide Eurostat with data on unemployment and the economically active population, broken down by sex and age. The distribution of these data is then used when attributing LFS NUTS level 2 figures to level 3. The best source of the level 3 data varies between countries, and can be LFS annual average figures, LFS three-year average figures, reliable register data or some other reliable sources. The choice of source is made in cooperation between Eurostat and the relevant national agencies (Eurostat 2007b: 21). In most cases the total is the same whether data are aggregated from level 2 or level 3, except when data are missing for one or more units at level 3.

How comparable are the labour force statistics published at a regional level, and how do they correspond with country-level data? The regional data are harmonised to Eurostat's version of the ILO criteria, and are primarily based on the EU-wide labour force surveys. The regional labour force series should therefore be comparable across countries and regions, even though they obviously share the same problems of comparability as the data published at country level. However, the data published at the country and regional levels are compiled by different teams at Eurostat (Eurostat 2007b: 12-13), using slightly different primary sources.<sup>65</sup> As a result, the aggregate regional figures do not always correspond with figures originally published at country level. This can be seen in tables 3.4 and 3.5, which show two figures for each labour force statistic in Sweden and Norway: one originally published at country level, and one aggregated to country level from a lower regional level. Where available, data from the national statistical offices are also included.

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<sup>65</sup> Until 2004, country-level annual data were based on data from the EU LFS conducted during the spring, usually the second quarter. From 2005 they are annual averages of quarterly data. The regional series are annual averages of quarterly data. However, the convergence to identical results in the two sets of data had not yet been reached for all countries in the 2005-data (personal correspondence with Eurostat official, 22 May 2007).

**Table 3.4 Regional and country-level labour force data, Sweden 2001-2005. Thousands**

Variable/source	Level	2001	2002	2003	2004	2005
<u>Total labour force</u>						
Statistics Sweden	Aggregate	4 415,0	4 420,0	4 452,0	4 460,0	4 532,8 (b)
	Country	4 414,0	4 421,0	4 450,0	4 459,0	4 533,0 (b)
Eurostat	Aggregate	4 538,1	4 554,7	4 574,1	4 589,6	4 687,3 (b)
	Country	4 542,0	4 552,5	4 574,7	4 585,6	4 706,5 (b)
<u>Total employment</u>						
Statistics Sweden	Aggregate	4 241,0	4 243,0	4 235,0	4 213,0	4 262,6 (b)
	Country	4 239,0	4 244,0	4 234,0	4 213,0	4 263,0 (b)
Eurostat	Aggregate	4 318,2	4 323,8	4 314,4	4 289,9	4 336,5 (b)
	Country	4 318,1	4 323,9	4 314,4	4 290,0	4 346,7 (b)
<u>Unemployment</u>						
Statistics Sweden	Aggregate	176,0	176,0	218,0	246,0	270,0 (b)
	Country	175,0	176,0	217,0	246,0	270,0 (b)
Eurostat	Aggregate	219,4	230,4	259,4	298,7	350,6 (b)
	Country	223,9	228,6	260,3	295,5	342,8 (b)

*Notes:*

Country: Data originally published at country level by Eurostat/Statistics Sweden.

Aggregate: Data originally published at NUTS level 2, aggregated to country level by the authors.

Eurostat: Population covered: all persons aged 15-74 years, including career but excluding conscript members of the armed forces. Data adjusted to Eurostat's definition. Country-level data from the harmonised unemployment series; aggregate figures from regional labour market series.

Statistics Sweden: Population covered: all persons aged 16-64 years, including career and conscript members of the armed forces. Data according to national definition.

(b) Break in series (as indicated by the source)

*Sources:*

Eurostat (2007a) and Statistics Sweden (2002, 2003, 2004, 2005a, 2006).

In general, Eurostat's regional and country-level data on total employment are virtually identical in both countries. The discrepancies in the unemployment data are somewhat bigger, especially when it comes to the Norwegian statistics and the 2005-data for Sweden. Table 3.4 shows that the regional and country-level data for Sweden on total employment are practically the same. The difference in the unemployment data, however, is about 4.000 in the figures for 2001 and 2004, and nearly 8.000 in 2005.

**Table 3.5 Regional and country-level labour force data, Norway 2001-2005. Thousands**

Variable/source	Level	2001	2002	2003	2004	2005
<b>Total labour force</b>						
Statistics Norway	Aggregate	2 361,0	2 377,0	2 376,0	2 383,0	2 400,0
	Country	2 361,0	2 378,0	2 375,0	2 382,0	2 400,0
Eurostat	Aggregate	2 347,8	2 364,6	2 352,8	2 365,4	2 387,2
	Country	2 349,7	2 367,3	2 364,2	2 372,4	2 393,4
<b>Total employment</b>						
Statistics Norway	Aggregate	2 277,0	2 287,0	2 271,0	2 274,0	2 288,0
	Country	2 278,0	2 286,0	2 269,0	2 276,0	2 289,0
Eurostat	Aggregate	2 265,3	2 275,4	2 257,6	2 266,6	2 282,6
	Country	2 265,3	2 275,5	2 257,6	2 266,5	2 282,6
<b>Unemployment</b>						
Eurostat	Aggregate	82,5	89,0	95,1	98,8	104,6
	Country	84,4	91,8	106,6	105,9	110,7

*Notes:*

Country: Data originally published at country level by Eurostat/Statistics Norway.

Aggregate: Data originally published by Eurostat and Statistics Norway at NUTS levels 2 and 3, respectively. Aggregated to country level by the authors.

Eurostat: Population covered: all persons aged 16-74 years, including career but excluding conscript members of the armed forces. Data adjusted to Eurostat's definition. Country-level data from the harmonised unemployment series; aggregate figures from regional labour market series.

Statistics Norway: Population covered: all persons aged 16-74 years, including career and conscript members of the armed forces. Data according to national definition. Statistics Norway does not publish unemployment figures at NUTS level 3 due to uncertain data.

*Sources:*

Eurostat (2007a) and Statistics Norway (2007).

Table 3.5 shows labour force data for Norway. The data on total employment are practically the same for all years, but there are major differences when it comes to the unemployment figures. The number of unemployed persons is consistently higher in the country-level data compared with the aggregated regional data, in one case by as much as 11.500 people (2003). This is a non-trivial difference: based on the regional-level data, the unemployment rate in Norway in 2003 would be 4.0%, while the country-level data put the rate at 4.5%.

### 3.4 Summary

This chapter has examined the comparability of labour market statistics, with particular focus on unemployment figures. To summarise, ESS users who wish to incorporate aggregate measures of the level of unemployment in their analyses should note three issues. First, unemployment data taken directly from the national statistical offices are generally not suited for cross-country analysis, since countries frequently define and measure unemployment differently. Second, the

harmonised unemployment figures published by institutions such as the OECD, the ILO and Eurostat are clearly the best data available for comparative purposes, even though both conceptual and non-conceptual differences may affect their comparability. And third, data published at regional level are as yet not always entirely coherent with data published at country level. Though the differences are usually insignificant, they may be substantial in some cases.

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## Chapter 4: Education statistics

Rapidly changing labour markets and education demands have generated a growing need for valid and comparable educational data that can assist policy makers to plan and manage the supply of educational services and to monitor educational progress (Schleicher 1995: 216). However, international education comparisons are difficult to make because educational systems vary considerably across countries. Even if data are reasonably accurate and adequate for national purposes, they may not be comparable at an international level because of, for example, differences in national definitions and classifications.

The main providers of European education statistics are Eurostat, UNESCO and the OECD. These three institutions cooperate on the UOE Database (short for UNESCO/OECD/Eurostat Database), which contains a wide range of education statistics collected according to international standards, definitions and classifications. The database itself is located at an OECD website, but education data are also presented at each of the institutions' websites. Other sources of education data are national statistical offices.<sup>66</sup>

Two education topics that have received academic attention are the expenditure level and education level of a country's population. In this chapter we will take a closer look at some of the challenges related to comparisons across countries and over time for those topics.

### 4.1 Education level

The education level of a population has a very central place in many social science studies and analyses, often as a background variable together with other variables. The variable is frequently used in international comparisons, for example as an indicator of human capital or a country's living standard.

There are today international guidelines defining how much education is required to be classified at a certain level of education. These guidelines are known as the International Standard Classification of Education (ISCED), and are maintained by UNESCO. Initially established in the 1970s in order to facilitate statistical comparison of education across countries, the ISCED 1997 revision provides the current international standard for all organised and sustained learning activities (UIS 2007).

Although the international standards are clear, it is sometimes problematic for countries to integrate those standards with the national systems. Countries vary with regards to what they

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<sup>66</sup> See Part 2 for further information about what data are available and how to access them.

define as education, and these “borderlands” of education tend to cause comparability problems (Smith et al. 1997). These borderlands include pre-primary education and day care, special education, adult education, vocational/technical education and proprietary education.

What’s more, not all countries follow the ISCED guidelines when it comes to putting a person at a certain education (i.e. skill) level. This leads to some uncertainty concerning the validity of the data. According to de la Fuente and Doménech (2006), poor quality of education data may distort analyses to such a degree that education variables frequently turn out to be insignificant or to have the “wrong” sign in growth regressions. By removing sharp breaks in the data, which resulted from changes in classification criteria, their new analyses revealed a sizable and clear significance of human capital coefficients on growth regressions.

A Norwegian revision of their education-level data illustrates to what extent changes in classification criteria may affect the values on certain variables. In 2006 Statistics Norway revised the definitions of education level, aligning them with the international standard. The main discrepancy between the Norwegian and the international standard was that ISCED required more years of education at a certain level than what the Norwegian standard required. For a person to fall into the fourth skill level (university degree or equivalent), he or she would have to have completed courses worth at least 120 ECTS credits.<sup>67</sup> By comparison, according to Norwegian standards it would suffice to have completed one single course at the university level or equivalent (Jørgensen 2006). Similar definition differences appeared in the lower ISCED levels as well. This led to considerable changes in the reported education level of the Norwegian population. While the country previously ranged in the very top of the global list together with Japan, Canada, the United States and the other Nordic countries, the score has now been lowered noticeably.

Table 4.1 shows the population of 16 years of age and older, displayed after education level and age. As we can see, the numbers of the old and the new standard are quite different on the primary and secondary level, while tertiary education remains about the same.

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<sup>67</sup> The European Credit Transfer and Accumulation System is a student-centered system based on the students’ workload required to achieve the objectives of a programme, objectives preferably specified in terms of learning outcomes and competences to be acquired. <http://www.cruis.it/CRUI/ECTS/english/index.htm> (31 August 2007).

**Table 4.1: Education level of the Norwegian population, old and new standard. Persons 16 years of age and older. 2005. Percentages**

Age	ISCED 0-3		ISCED 4		ISCED 5		ISCED 6	
	Old standard	New standard						
Total	19,0	32,8	56,7	42,4	18,8	19,3	5,5	5,5
16-19	37,6	88,4	62,4	11,6	0	0	0	0
20-24	5,7	30,0	82,8	54,3	11,3	15,5	0,2	0,2
25-29	43,5	20,2	58,8	40,4	30,4	32,8	6,6	6,6
30-39	5,9	19,1	56,5	43,2	28,3	28,5	9,2	9,2
40-49	9,8	27,2	59,9	42,5	23,5	23,5	6,9	6,9
50-59	17,4	25,0	55,6	48,1	20,5	20,4	6,5	6,5
60-66	26,0	31,4	52,4	47,0	15,9	15,9	5,7	5,7
67+	45,5	47,3	42,7	40,8	8,9	8,9	3	3

*Source:* Jørgensen (2006)

As Table 4.2 shows, Norway slipped considerably in comparison with the other OECD countries, especially on the ISCED 4 level. This example shows the uncertainty associated with education-level statistics, and how rather subtle differences in definitions have an impact on comparisons across countries.

**Table 4.2: OECD countries. Persons aged 15-64. Education level, 2004. Percentages**

Country	ISCED 0-3	ISCED 4	ISCED 5-6
Norway, old	11	56	32
Norway, new	24	45	31
Sweden	17	48	34
Poland	16	69	16
United States	13	49	38
France	35	42	24
United Kingdom	15	56	29
Austria	20	62	18

*Source:* OECD (2006)

## 4.2 Education expenditures

Comparing national expenditures on education may prove difficult because the data are dependent on a number of factors, including the size of the economy, the population structure and enrolment rates (Hanushek 1996, Smith et al. 1997: 322-323). In addition, the coverage and character of the education expenditure data that countries submit to the OECD vary somewhat. Sometimes an individual expenditure item may be included in the expenditure data from one

country, but may not be included in those from another. Below is a discussion of some of the problems that exist in comparing education expenditures across countries.

Because GDP levels are the measure against which education expenditures are compared in this indicator, a country's wealth has a significant effect on the amount of resources that can be devoted to education. Similarly, the size of the youth population (age 5-29) influences how much a country needs to invest in education and training.

Enrolment rates also affect the amount of resources a country needs to spend on education. The proportion of persons between the ages of 5 and 29 who are enrolled either full time or part time in pre-primary, primary, secondary or tertiary education varies widely across countries. For example, this proportion ranges from less than 55% in the Czech Republic, Greece, Mexico and Turkey, to more than 67% in Australia, Belgium, Canada and New Zealand.

Discrepancies in expenditure data arise because one country may collect certain kinds of data that another either does not, or does not collect in its "education" data collections. Or, one country may define what constitutes an education expenditure differently than another country does. Smith et al. (1997: 322-323) identifies four general domains in which discrepancies between which expenditure items are included in one country's expenditure figures and not in another's tend to arise: (1) non-instructional (ancillary) services, (2) private expenditures, (3) the "boundaries" of education, and (4) university research.

#### Ancillary services

Some countries have lower education expenditures because they provide fewer ancillary services in their schools. Ancillary services are services like school cafeterias, dormitories and intramural school sports programs, school health clinics or visiting school nurse services, attendance services, and speech or psychological therapy services. US schools tend to subsidise relatively more ancillary services through their education budgets than do schools in most other countries. In some countries, such as Germany, many schools do not provide any of the aforementioned services at the primary or lower secondary levels.

#### Private expenditures

Some countries' education systems receive large private contributions. The most common forms of private contributions to education are student tuition or fees; organisational subsidies, such as those provided by religious denominations to their own schools; and corporate in-kind contributions, such as those provided by German and Austrian firms to fund vocational courses on the shop floor for participating youth apprentices. Most national collections of education

statistics attempt to include estimates for such expenditures. However, other private expenditures can seem more ephemeral to education data gatherers. Students' or parents' own spending on school supplies, or community organisations' charitable grants and loans to individual students, for example, can only be estimated with the help of household expenditure surveys and diligent perusal of statistical collections outside the domain of traditional educational institutions.

#### The boundaries of education

Fewer inconsistencies arise when comparing just the *instructional* expenditures for *primary* and *secondary* public education in the *academic* track. But the borderlands of education, in particular, tend to cause comparability problems. As mentioned earlier in this chapter, these borderlands are pre-primary education and day care, special education, adult education, vocational/technical education and proprietary education. For example, in some countries private or public day care is not managed by education authorities, but is rather the responsibility of human services department.

#### University research

Comparing expenditures on higher education may often be misleading, as university spending includes substantial expenditures on research. The proportion of total university spending invested in research varies widely, especially because of variations in the proportion of total national research and development (R&D) that is performed within the domain of higher education institutions.

In addition to variations among countries regarding the investment in R&D, countries have not reported their research spending to the same extent when submitting data. While some countries exclude, for example, separately funded or budgeted research, others include nearly all research outlays by institutions of higher education when reporting higher education expenditure figures.

Even these four domains do not include all the possible comparability problems. There remain, for example, inconsistencies in how different countries treat public contributions to teacher retirement and fringe benefits, student financial aid, and hospitals.

### **4.3 Summary**

As education structures vary quite considerably across countries, comparisons on topics such as education level and education expenditures are somewhat problematic. Conditions have

improved with regards to education level after the ISCED was introduced, but the data provided by some national statistical offices to the UOE are still not perfectly in line with the international standard. Education expenditure comparisons across countries are also complicated, all the while countries differ widely concerning ancillary services, private expenditures, the definition of education and to what degree university research is considered education.

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## **Chapter 5: Political indicators**

National governments have long been involved in the generation of data on a wide range of economic, demographic and social issues, and several cross-country databases containing such data have been compiled by inter-governmental organisations. By contrast, much less effort has been devoted to the generation of comparable data on politics. Still, some notable efforts have been made, in particular by non-governmental organisations (NGOs) and scholars, and a number of indicators and indices have been developed to measure the basic characteristics of political systems. In recent years, the generation of comparable cross-country data on political systems has become a growth industry, and several datasets are now available (Munck 2005: 427).

However, there is still little agreement on how political issues should be measured, and few measuring instruments have gained broad consensus in the scholarly community (ibid: 428). In fact, most or all existing political indicators have been challenged for the way they define, operationalise and measure central political concepts. The existing datasets should therefore be used with caution, and users should take note of several issues that may affect their comparability and quality. This chapter examines some of these issues, focusing in particular on how indicators conceptualise, operationalise and measure various aspects of political systems. The chapter is organised in five main sections: Section 1 examines indicators of political institutions, Section 2 looks at democracy indices, Section 3 deals with measures of corruption and Section 4 considers human-rights indicators. The final section summarises and highlights some issues users of political indicators should bear in mind.

### **5.1 Political institutions**

#### **5.1.1 Quantitative data on political institutions**

The exact meaning of the term “institution” is hotly debated in the academic literature (Ostrom 1986), but it commonly refers to formal and informal structures that in some way influence or constrain the behaviour of individual actors. The term political institution may thus refer to a number of attributes of the political system, such as the electoral rules, the branches of government and the relationship between them, and federalism and decentralisation.

The analysis of political institutions constitutes one of the major research areas in political science, and one study has found that the largest number of articles in leading comparative politics journals focus on democratic and state institutions (Munck and Snyder 2007: 8). Many of the studies in this field make use of quantitative research designs and a number of indices and

indicators have been developed to measure various aspects of institutions. Existing indicators range from simple and descriptive classifications – e.g., counting the number of parties in parliament or classifying electoral systems as either majoritarian or proportional – to the more sophisticated indices, such as the Laakso-Taagepera (1979) index of the effective number of parties or the Gallagher (1991) index of the degree of disproportionality of electoral systems.

Political institutions indicators are usually produced for specific research projects and are not always easily available to other researchers, at least not in electronic format. Still, the availability of institutional indicators has improved considerably over the past few years, mainly for two reasons. First, it has become increasingly common for students of institutions to make their datasets publicly available online, in order to make it easier for independent researchers to replicate the analyses. A number of such datasets from independent research projects are examined in Part 2 of this report.<sup>68</sup> And second, some projects have worked to compile more general political databases and made them available online. The most prominent examples are the Database of Political Institutions (Beck et al. 2001), the Comparative Political Datasets (Armingeon et al. 2006, 2007; Armingeon and Careja 2004) and the Quality of Government Datasets (Teorell, Holmberg and Rothstein 2007). These general databases, which are also examined in Part 2, are regularly updated and combine data from NGOs and various research projects. Some of them also produce their own variables. The Comparative Political Datasets cover nearly all European countries while the other two cover most of the countries in the world. The easiest way for ESS users to get access to institutional data for European countries is therefore to consult one of these databases. However, the geographical coverage of specific variables may be more limited, and some of the databases contain a fairly large number of missing data points.<sup>69</sup>

### 5.1.2 Conceptualisation, operationalisation and measurement

Quantitative data on political institutions are frequently considered to be based on “objective” information (e.g., Beck et al. 2001: 166), and are therefore sometimes treated as less prone to problems of comparability and reliability than many other types of contextual data. Yet a closer

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<sup>68</sup> Examples include Evelyne Huber et al.’s Comparative Welfare States Dataset, Witold Heinsz’s Political Constraint Index Dataset, Rafael La Porta et al.’s Judicial Checks and Balances and Matt Golder’s Democratic Electoral Systems Around the World.

<sup>69</sup> Note also that the Comparative Political Datasets is actually made up of three datasets. CPDS I covers OECD countries for the period 1960-2004, CPDS II covers 28 post-communist countries for the period 1989-2006, while CPDS III covers 35 OECD and/or EU member countries for the period 1990-2004. On some variables, the three datasets operationalise the same concepts differently, making it more difficult to use them in comparative analyses including all European countries. The CPDS III was published after this chapter was written, so when we mention the Comparative Political Datasets, we generally mean CPDS I or CPDS II.

examination of widely used indicators shows that institutional data may often turn out to be less objective than they first appear. Users of such data should therefore consider carefully how the indices define, operationalise and measure institutions.

The initial task in the measurement process concerns *conceptualisation*, or the explicit formulation of the concepts to be measured (Munck 2005: 429). This task almost always involves a certain degree of subjective judgement, and various scholars frequently define the same basic concepts differently. As a consequence, the same case may be coded in different ways, depending on how the concept that is being measured is defined. There is, for example, some disagreement when it comes to how the concept “presidential system of government” should be defined, and borderline cases are often classified differently. France is a case in point here: the Comparative Political Datasets classify the French system of government as presidential, the Database on Political Institutions as parliamentary and the Quality of Government Dataset as semi-presidential.<sup>70</sup> This does not mean that one of the classifications is correct and the others are wrong. But it does show that a seemingly straightforward classification of a political institution is not always that clear-cut, and that users of institutional data must make sure that an indicator’s definition of a concept corresponds with their own understanding of it.

Users of existing datasets on political institutions must also consider how the *operationalisation* task has been dealt with, that is, the process of specifying the observables that are to be used to measure a concept and determining how they should be quantified. The same underlying concept is often operationalised differently by various scholars; hence there is usually more than one indicator available to measure the same thing. For example, various indices have been proposed to measure the disproportionality of electoral systems, such as the Loosemore-Hanby (1971), the Rae (1967) and the Gallagher (1991) indices. These indices may sometimes produce significantly different results, and scholars should therefore consider carefully which index is the most appropriate for the research question at hand (Pennisi 1998).

A third issue that users should be aware of concerns the *measurement* process itself: the collection of empirical information and coding of indicators. The quantitative data in political datasets are often taken, and sometimes presented, as flawless measures (Munck 2005: 435). However, it is close to impossible to measure anything without error, and political institutions are no exception. Most of the existing measures of institutions are expert-coded indicators based on a variety of source materials, such as constitutions, government documents, newspapers and

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<sup>70</sup> The Quality of Government Dataset contains several variables classifying regimes as presidential or parliamentary; the variable cited here is (gtm\_parl). Another borderline case is Finland. Various scholars have classified the country’s political system as presidential, semi-presidential and parliamentary (Elgie 1998: 223). The Quality of Government Dataset and the Database on Political Institutions classify Finland as a parliamentary system, while the Comparative Political Datasets classify it as presidential.

various academic works. It is inevitable that there will be some error in this process – either because of flaws in the primary sources or because of inaccurate coding – even in widely used political datasets.

A few examples from two of the general databases may illustrate potential problems in the measurement process.<sup>71</sup> In a review of the Database on Political Institutions, Zoco (2004) finds that it contains some instances of inaccurate data collection and some coding and measurement problems. For example, the classification of political parties according to various criteria sometimes appears to be rather arbitrary. In Spain, the Basque Nationalist Party is not coded as a nationalist party, even though it is commonly considered to be one (Guibernau 2000: 63), while Convergence and Union (a Catalan nationalist party), is coded as nationalist. In Norway, the Christian People's Party is classified as "right", the Centre Party sometimes as "right" and sometimes as "centre", and the Liberal party is classified as "centre". All three parties are usually treated as centre parties.<sup>72</sup>

The classification of parties as either government or opposition parties is also rather dubious in some cases. In Norway, the Socialist Left Party is coded as a coalition partner in the Labour governments during the years 1975-81 and 1987-89, and the Centre Party is coded as a coalition partner during the years 1991-93. Similarly in Sweden, the Communists/Left are classified as coalition partners in the Social Democratic governments during the years 1975-76, 1986-91 and 1999-2004. This is a highly unusual way of classifying the governments in Norway and Sweden during these periods; normally, the Labour and Social Democratic governments in the two countries are classified as single-party minority cabinets (see Strøm and Bergman 2005: 283-289). The decision to code the parties in this manner could reflect a practice of classifying parties that give tacit support to the government without participating in it as government parties, but this is not specified in the documentation. Furthermore, this coding convention is not followed in a consistent manner: the Danish People's Party, for example, is coded as an opposition party also during the 2001-04 period, even though the centre-right coalition government depended on the party's support to remain in office.<sup>73</sup>

The database also contains some instances of clearly wrong coding. According to the database, the Norwegian government in 2001 was a coalition of the Christian People's Party, the Centre Party and the Liberal party. In fact, Labour formed a minority government for most of

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<sup>71</sup> The individual data entries have not been examined systematically for all countries. We have only examined the countries and variables we are most familiar with. Still, the fact that even a cursory examination of some cases and variables found a number of inaccurate and debatable coding practices, indicates that there may be errant codes also for other countries and variables.

<sup>72</sup> In fact, the Liberal party is often considered to be further to the right than the other two (Heidar and Saglie 2002: 116-118).

<sup>73</sup> The Economist, "Full Fogh forward", 5 January 2005.

2001, until it was replaced by a coalition government of the Conservatives, the Christian People's Party and the Liberals in October 2001.<sup>74</sup> Another example of errant individual codes concerns the French electoral system. Electoral reform in 1985 introduced a proportional system that was used for the legislative elections in 1986, before the system was changed back to the mixed majority-plurality formula (Hiwatari 2001: 20; Clipart 1994: 16-22). Yet the database classifies the electoral system as a plurality system throughout the 1975-2004 period.

The classification of the French electoral system poses problems also in the Comparative Political Datasets, which classify the French system as modified proportional representation. In fact, the French mixed majority-plurality formula has more in common with plurality than proportional systems, and in a comparison of the degree of electoral disproportionality in 36 countries during the 1945-96 period, France has the highest degree of disproportionality of all (Lijphart 1999: 163). There are also other instances of errant codes in the Comparative Political Datasets, such as the coding of the judicial review variable. The Belgian system is classified as lacking judicial review during the years 1960-2000, ignoring the fact that constitutional revisions in 1984 and 1988 granted the Court of Arbitration the right to judicial review (*ibid*: 41).<sup>75</sup> Conversely, France is coded as a country with judicial review from 1960 onwards, even though Lijphart (1999: 227) asserts that the French Constitutional Council became a true organ of judicial review only in 1974. Another example is the coding of the federalism variable: Bosnia and Herzegovina is not classified as a federal state in the dataset, but the extent of power accorded by the constitution to the country's two main administrative divisions "would suggest that the country is at least a federation" (Bieber 2002: 209).

These examples illustrate that even widely used datasets are not flawless. This does not mean that they should be rejected as sources of political data. It does imply, however, that users of the data should take the issue of measurement error seriously, possibly by factoring it into an estimate of the degree of confidence attached to the data (Munck 2005: 435).

### 5.1.3 Documentation

Indicators of various features of political systems are thus not as objective and clear-cut as they are sometimes portrayed. The same concepts may be defined or measured differently, and individual cases may be coded incorrectly or in a dubious manner. This can lead to problems of

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<sup>74</sup> The Labour government was formed in March 2000, after the coalition government of the Christian People's Party, the Centre Party and the Liberals stepped down.

<sup>75</sup> In the newly released Comparative Political Datasets III, Belgium is coded as a country with judicial review for the years 1990-2004 (Armingeon et al. 2007).

comparability if the operationalisation is biased in some way or if the data quality is better for some countries than for others.<sup>76</sup> Accordingly, ESS users who wish to incorporate political institutions data in their analyses should examine the indicators carefully before using them, in order to find out what they really measure. This leads us to a central issue concerning the use of institutional indicators: the documentation must specify the coding rules and sources clearly and in sufficient detail to allow independent researchers to engage the data critically. Unfortunately, this is not always the case. The indicators in the three general databases identified above – the Database of Political Institutions, the Comparative Political Datasets and the Quality of Government Datasets – are all described in brief in publicly available codebooks. In some cases, the documentation is fairly detailed, and gives users of the data a good understanding of how they can be used.

However, in many cases indicators are reproduced from other sources, and the codebooks do not always specify how they are coded. Instead, they merely refer to the original source, making it unnecessarily time-consuming for users to find out how the indicators are coded and what they measure.<sup>77</sup> Furthermore, the documentation that is provided may sometimes be quite confusing. In the Comparative Political Datasets, for instance, the classification of political systems in central and eastern Europe as parliamentary, presidential or two forms of semi-presidential is allegedly based on Lijphart (1999). Yet Lijphart does not treat semi-presidential systems as a separate category, and though he discusses some of the features commonly associated with such systems, he does not specify the procedures for classifying them as semi-presidential. As a consequence, users of the dataset have no way of knowing exactly what the different categories of the variable mean. This is potentially a serious problem, since there is little agreement in the academic literature on how to classify systems of government in central and eastern Europe (see, for example, Baylis 1996, Krouwel 2000 and Metcalf 2000).

#### 5.1.4 Summary

To summarise, then, ESS users may find a wide range of institutional indicators in general political databases, available online. These databases make it fairly easy to get access to measures of various features of political systems. However, the easy access to such data can also be a

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<sup>76</sup> For example, Pennisi (1998) argues that using the same method to measure the disproportionality of electoral systems in all countries can be misleading, and that there is a close relationship between electoral formulas and indices of disproportionality.

<sup>77</sup> The original sources do not always provide sufficient documentation either. The Comparative Political Datasets reproduce many of the political variables from Huber et al. (2004), but this source says little about how variables such as federalism, presidentialism and electoral system are coded. Instead, the original source refers to several scholarly works, without specifying how these are used to code the variables.

problem, since users may treat the indicators as objective and straightforward classifications. In fact, the same concepts are often defined and measured differently by various sources, and there are also several instances of measurement error. Ideally, users should examine the documentation carefully before using political indicators in order to find the most appropriate one. But this is not always possible since the databases sometimes do not specify the coding rules in sufficient detail.

## 5.2 Democracy

### 5.2.1 Democracy indices

The study of democracy and democratisation has constituted one of the most important areas of research in political science for several decades, especially since the start of the “third wave” of democratisation in the mid-1970s (Geddes 1999; Munck and Snyder 2007: 9). As part of this research tradition, several instruments for measuring the extent of democracy have been developed, and indices of democracy are now widely used to examine the causes and consequences of democratisation. The most widely used indices are probably the Freedom House (2006a) index, the Polity index (Marshall and Jagers 2005), the ACLP<sup>78</sup> dataset (Alvarez et al. 1996) and the Polyarchy dataset (Vanhanen 2000),<sup>79</sup> but several other measures are also available.<sup>80</sup> The geographical and temporal coverage of the indices vary, but many of them cover a fairly long time period and most or all of the countries in the world.

The indices are generally highly correlated with each other, and some scholars therefore treat them as interchangeable (Casper and Tufis 2003: 3).<sup>81</sup> Yet there is evidence to suggest that this practice is unwarranted. Munck and Verkuilen (2002a: 29-30) point out that the correlation tests have been performed with highly aggregate data, and that they may mask some real systematic differences. Hadenius and Teorell (2005: 2) also criticise the use of correlation tests as evidence for the quality of existing democracy measures, and argue that the apparently strong aggregate-level correlations among different indices are weaker when calculated at different levels

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<sup>78</sup> ACLP is short for Alvarez, Cheibub, Limongi and Przeworski, the producers of the dataset.

<sup>79</sup> These and the Polyarchy and Contestation Scales compiled by Michael Coppedge and Wolfgang Reinicke are examined in Part 2. The Polyarchy dataset is usually named the Vanhanen index after its author, but was given the name Polyarchy by Vanhanen when the dataset was first made public in electronic format (Wilhelmsen 2006: 35).

<sup>80</sup> See Hadenius and Teorell (2005), Landman and Häusermann (2003) and Munck and Verkuilen (2002a) for an overview of other indices.

<sup>81</sup> In addition, the high correlations are often interpreted as a sign of the quality or accuracy of the indices, but Munck and Verkuilen (2002a: 29) argue that the correlation tests do not say anything about the *validity* of the data, only their *reliability*. The high correlations between the indices may signify that they all suffer from the same bias, in particular since they tend to rely on the same sources (*ibid.*). However, Jagers and Gurr (1995: 473-476), who were responsible for producing the Polity index, interpret the strong correlations between the indices as proof of validity.

of the democracy scale. In general, they find that the cases at the extreme ends of the scale are classified in much the same way by all the indices: Sweden is always classified as (highly) democratic and North Korea always as (highly) authoritarian. In the intermediate categories the correlations are generally weaker, and in some cases much so.<sup>82</sup> This may have implications for practical research, and Casper and Tufis (2003) show that highly correlated measures of democracy can produce different results. In an analysis of the relationship between nine socio-economic indicators and democracy, they find that only three are consistent across the various democracy indices and time periods, and only one is consistent across all the indices and robustness checks (*ibid*: 9).

The choice of a democracy index for a research project is therefore not a trivial matter. The quality and relevance of alternative indices have been hotly debated in the academic literature, and there is little agreement concerning which, if any, is to be preferred. Needless to say, this debate cannot be settled in this report. Instead, we will identify some issues that ESS users should consider before choosing a measure of democracy for their analyses. The quality of indices of democracy has been examined in detail in several studies (see in particular Munck and Verkuilen 2002a; but also Foweraker and Krznaric 2000, Hadenius and Teorell 2005, and Landman and Häusermann 2003). The remainder of this section summarises some of the main arguments in these studies, focusing on potential problems of conceptualisation, measurement and aggregation.<sup>83</sup>

### **5.2.2 Conceptualisation**

An assessment of a democracy index should start by examining how it conceptualises democracy, that is, how it defines democracy and what attributes it identifies as constitutive of the concept (Munck and Verkuilen 2002a: 7). There is no hard rule to follow here: even though most definitions of democracy are now broadly similar in spirit, there is no general agreement concerning exactly how the concept should be defined and what features should be included in a definition of it (Collier and Levitsky 1997: 433-434; Hyland 1995: 36). Scholars should therefore focus on two more general issues when choosing an index.

First, indices should avoid the extremes of including too much or too little in the definition (Munck and Verkuilen 2002a: 9). The inclusion of too many attributes in a definition of democracy may limit the analytical usefulness of an index, since it is difficult to establish what it really measures. Maximalist definitions also risk excluding several interesting research questions

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<sup>82</sup> See Bowman, Lehoucq and Mahoney (2005: 945-946) for an expression of a similar argument.

<sup>83</sup> This framework is adapted from Munck and Verkuilen (2002a).

from analysis. The Freedom House index, for example, is based on a very broad definition of democracy and includes a number of attributes not normally considered to be defining features of democracy, such as absence of pervasive corruption and equality of opportunity (Freedom House 2006a, respectively C2 and G4 on the checklist).<sup>84</sup> As a consequence, the index is of limited use in studies of, for instance, the relationship between corruption and regime type, since a low level of corruption is treated as one of the defining features of democracy. At the same time, some scholars give the Freedom House index credit for including components covering nearly the entire range of basic democratic criteria (Hadenius and Teorell 2005: 15-16). The index thereby avoids the common problem of including too little in the conceptualisation of democracy.

In fact, minimalist definitions of democracy are much more widespread than maximalist ones. The problem with such definitions is that they frequently omit attributes that are generally considered to be intrinsic to the concept of democracy. For example, neither Polity nor ACLP include universal suffrage as an attribute of democracy; the only aspect of participation they are concerned with is whether or not elections are competitive (Munck and Verkuilen 2002a: 11).<sup>85</sup> Other significant omissions can also be noted. Many indices make no effort to gauge whether civil liberties are guaranteed and respected (e.g., Polity, ACLP and Polyarchy); the question of whether elected officials actually exercise power is frequently neglected (e.g., ACLP and Polyarchy); and existing measures often do not consider whether elections are free and fair (e.g., Polity, ACLP and Polyarchy). Although it can obviously be debated whether all these features should be seen as inherent attributes of democracy, it is clear that many indices of democracy omit important aspects in their definitions of the concept. The validity of the indices is therefore open to question.

Users of existing measures of democracy should also pay attention to a second issue concerning the conceptualisation of democracy, namely how the various attributes are related to each other. Producers of indices must make sure that the attributes are related in a coherent and logical way, in order to avoid problems of redundancy or conflation (Munck and Verkuilen 2002a: 13). Problems of redundancy arise when two or more distinct attributes are used to

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<sup>84</sup> The index is not, in fact, strictly speaking an index of democracy; the survey purports to examine the level of *freedom* in a country or territory, and it thus aspires to rate “the real-world rights and social freedoms enjoyed by individuals” (Freedom House 2006a). Nonetheless, the index is frequently used as a measure of democracy, and Raymond Gastil, who produced the survey from 1973 until 1989, asserts that it is “essentially a survey of democracy” (Gastil 1991: 22).

<sup>85</sup> The notion of participation is problematic for other indices as well; even measures that include universal suffrage as a defining feature in their conceptualisation of democracy often fail to consider women’s right to vote (Paxton 2000).

measure the same overarching concept. This is the case, for example, with the Polity index, which in two instances identify a pair of attributes that grasp only one aspect of democracy (ibid: 14).<sup>86</sup>

The problem of conflation occurs when two distinct attributes are treated as if they were measuring the same thing, when in fact they are manifestations of different aspects of democracy. This is a serious problem in the case of the Freedom House index, which lumps together a large number of distinct or vaguely related attributes of democracy and makes no effort to establish the relationship between them (ibid.). In fact, the index's conceptualisation of democracy consists of so many distinct features that it is difficult to tell what it really measures.

### 5.2.3 Measurement

The components that make up a definition of democracy are rarely if ever observable variables. Producers of democracy measures must therefore relate unobservable or latent variables to observable indicators that can be used to construct a measure of democracy (Munck and Verkuilen 2002a: 15). This is a complex task, and several factors affect the quality of the measurement process. Users of democracy indices should pay attention to at least four issues in this regard.

First, it is crucial that the indicators selected to operationalise the various attributes of democracy actually measure what they purport to measure (ibid.). This may seem too obvious a statement to deserve much attention. Yet several indices are based on indicators that are, at best, poor approximations of the underlying concepts they attempt to measure. This has serious implications for the validity of the indices. For example, democracy as defined by Vanhanen (2000) in the Polyarchy dataset consists of two attributes, competition and participation. Vanhanen argues in favour of using "objective" indicators to measure both attributes; competition is measured as the percentage of votes going to the largest party and participation is measured in terms of voter turnout (ibid: 253). Several scholars find these indicators to be seriously flawed as measures of competition and participation (Hadenius and Teorell 2005: 20),<sup>87</sup> and Vanhanen's choice of indicators produces some peculiar results. Algeria, for example, is classified as democratic from 1995 onwards, and Iran is classified as a democracy in 1996. Few scholars would seriously consider either as a democracy.

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<sup>86</sup> See Marshall et al. (2002) for the Polity project's reply to the criticism raised by Munck and Verkuilen (2002a) on this and other points.

<sup>87</sup> For example, the participation indicator does not take into account the use of compulsory voting in many countries, nor does it consider the fact that the proportion who vote is smaller in countries with a young population. As for the competition measure, the indicator is biased towards countries with a high degree of party fractionalisation (Hadenius and Teorell 2005: 20).

A second issue that users should be aware of concerns measurement error. This issue is frequently neglected, but some scholars argue that miscoding based on limited knowledge of cases may be one of the most serious threats to the validity of extant indices of democracy (see, for example, Bowman, Lehoucq and Mahoney 2005). Furthermore, if the availability of sources is biased in some way – e.g., that sources are more reliable and easily accessible for some countries than for others – the comparability of the indices may suffer too (Bollen and Paxton 2000: 63).

However, it may be difficult for independent users to assess the extent of measurement error in existing indices, since the level of transparency in the coding process is often inadequate. This leads to a third issue that should be considered: whether the coding rules and sources are specified in sufficient detail to allow other researchers to replicate the results (Munck and Verkuilen 2002a: 18-19). Replicability does not in itself guarantee that the data are comparable and of a high quality, but is important to allow external users to assess alternative indices. Some of the existing measures perform rather well on this issue: the coding rules of both the ACLP dataset and the Polity index are described explicitly and in a fair amount of detail, even though the sources are not listed. Freedom House, on the other hand, does not specify the coding rules in sufficient detail and provide very little information on the coding process. It is therefore impossible for external users to assess how and why a country is scored the way it is.

A final issue that users should examine concerns the choice of measurement level, that is, whether democracy is measured using nominal, ordinal, interval or ratio scales, and how fine-grained the scales are. There is no a priori reason to say that any specific measurement level should be given preference over others. Rather, the choice of level depends on the nature of the research question, and requires both theoretical justification and empirical testing (ibid: 17). A general rule is that indices should avoid introducing distinctions that are too fine-grained, since it is implausible to assume that democracy is a concept that can be measured with millimetre precision. The Economist Intelligence Unit's democracy index (Kekic 2006) illustrates this point. The index is based on 60 indicators that are used to measure democracy on a 0 to 10 scale, with two decimal points. Depending on their score on the index, countries are placed into one of four categories: "full democracy", "flawed democracy", "hybrid regime" or "authoritarian regime". For example, Slovenia and Uruguay, with a score of 7.96, are both classified as full democracies, while South Africa (7.91) and Chile (7.89) are labelled flawed democracies (ibid.). However, because of limited information and measurement error, it is simply not reasonable to assume that the data can support such a degree of precision.

Using scales that are too coarse-grained, on the other hand, may lead to problems of variance truncation (Landman and Häusermann 2003: 10; Munck and Verkuilen 2002a: 17). This

occurs when cases that are substantially different in terms of the level of democracy are placed together. This is particularly apparent in the ACLP dataset, since it uses a dichotomous measure of democracy, classifying countries as either democracies or dictatorships. While a dichotomous index may be suited to analyse the impact of different regime types globally, it is of little relevance to ESS users since most European countries are now classified as democracies.<sup>88</sup> Variance truncation is also a problem with other measures of democracy, such as the Freedom House and Polity indices, which tend not to differentiate much between levels of democracy in European countries (Foweraker and Krznaric 2000: 767; Landman and Häusermann 2003: 10). Researchers who wish to examine differences within established democracies may therefore find it more useful to focus on measures of *democratic quality*, rather than whether or not a regime is democratic.<sup>89</sup> Unfortunately, there are as yet, to our knowledge, no quantitative indices of the quality of democracy with an extensive geographic and temporal coverage.<sup>90</sup>

#### 5.2.4 Aggregation

The third aspect that users of democracy indices should consider is how the aggregation task is dealt with. This task concerns how the values assigned to each attribute of democracy during the measurement process are combined to a single score (Munck and Verkuilen 2002a: 22).<sup>91</sup> This aspect has not received much attention, but has important analytical implications: alternative aggregation rules can produce markedly different scores on the index. There is no hard and fast rule to follow here, and no a priori reason to assume that one aggregation procedure is better than others. Users should therefore focus on more general issues when assessing alternative indices. In particular, users should examine whether the aggregation procedure is theoretically founded.

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<sup>88</sup> See Collier and Adcock (1999) and Elkins (2000) for discussions of dichotomous measures of democracy. See also Epstein et al. (2006) for a critique of Alvarez et al.'s (1996) conceptualisation of democracy.

<sup>89</sup> For a discussion of various aspects of the concept of democratic quality, see the October 2004 special edition of *Journal of Democracy*, which contains several articles on the subject: Beetham (2004), Diamond and Morlino (2004), O'Donnell (2004), Plattner (2004), Powell (2004), Rueschemeyer (2004) and Schmitter (2004). See also the Democratic Audit website ([www.democraticaudit.com](http://www.democraticaudit.com)).

<sup>90</sup> However, a joint research project between the National Centres of Competence in Research (NCCR) and the Wissenschaftszentrum Berlin für Sozialforschung (WZB) aims to produce precisely such an index. The NCCR Democracy Barometer aspires to measure the quality of democracy in advanced industrialised societies (i.e., OECD member countries) in a substantive and differentiated manner (Hardmeier et al. 2005). This initiative may turn out to be a useful research tool when the first results are published in late 2009.

<sup>91</sup> A more basic question is whether the disaggregate data should be combined to a single score at all, or whether other levels of aggregation are more appropriate. Yet most or all producers of democracy indices appear to strive for parsimony and aggregate their data to a single index. Some producers also publish the disaggregate data, allowing other users to adopt different aggregation procedures (Munck and Verkuilen 2002a: 22-23).

In fact, a prerequisite for choosing an appropriate aggregation rule is that the relationship between the various attributes have been logically organised with an explicit reference to democratic theory (*ibid.*). Hence the conceptualisation of democracy has a direct bearing on the aggregation procedure. If, for example, the definition of democracy stipulates that all the attributes of democracy are equally important, and that none of them are strictly necessary features, it would be most appropriate to simply add the scores together. If the theory indicates that all attributes are necessary features, then multiplying the scores would be a feasible option.<sup>92</sup> And if the theory states that some of the attributes are sufficient in their own right, one could pick the score of the highest scoring attribute (*ibid.*: 24).

However, existing measures of democracy frequently fail to offer any justification for their aggregation procedure. A telling example is the index produced by Freedom House (2006a). The index consists of two main components – political rights and civil liberties – that are calculated by simply adding up the scores assigned to their respective subcomponents. All the attributes of the indices are thus given equal weight. Yet no theoretical justification is offered for this practice, and it seems dubious to assume that all the aspects included in the checklist are equally important when determining whether a country should be considered as more or less democratic.<sup>93</sup> This is especially problematic given the wide range of features included in the checklist used by Freedom House to rank countries, and given the lack of a theoretical connection between the attributes (Munck and Verkuilen 2002a: 25).

The aggregation procedure used to construct the Polity index is also problematic. Polity offers clear and explicit aggregation rules in which certain components are treated as more important than others in measuring the level of democracy or autocracy. Gleditsch and Ward (1997: 361), for example, find that democracy, as measured by the Polity index, is “fundamentally a reflection of decisional constraints on the executive”. However, no theoretical justification is provided for this weighting scheme (Munck and Verkuilen 2002a: 26), and it is debatable whether one component variable alone should be accorded so much weight. A second problem pertains to the problem of redundancy noted above: since the index includes a pair of redundant attributes, aggregation involves “a fair amount of double counting that is never acknowledged or explained” (*ibid.*; see also Munck and Verkuilen 2002b: 56).

Some democracy indices have a more conscious approach to aggregation. The ACLP dataset, for instance, is based on aggregation rules that are clearly stated and explicitly grounded

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<sup>92</sup> This is the procedure followed by Vanhanen (2000: 256) in his Polyarchy dataset.

<sup>93</sup> For example, Freedom House (2006a) gives no justification for according the same weight to the question of whether the head of government is elected through free and fair elections (item A1 on the checklist) as to the question of government corruption (item C2).

in democratic theory. A country is only classified as democratic if both the chief executive and the legislature are selected through contested, multiparty elections. The most obvious indication of contestation is that incumbents actually lose elections and agree to step down, and hence alternation in power is interpreted as decisive evidence of truly contested elections (Munck and Verkuilen 2002a: 26-27). The only problem with the aggregation procedure is that no effort is made to consider the implications of using different aggregation rules (ibid.).

### **5.2.5 Summary**

This section has drawn attention to some of the issues that ESS users should consider before choosing a measure of democracy for their analyses. It is clear that there are many factors that may affect the comparability and quality of democracy indices, but it is difficult to assess which index is to be preferred. The answer will probably depend on the nature of the research project, and individual opinions about how the concept of democracy is best understood. The difficulty in assessing the indices can be illustrated by the conclusions of two independent surveys of measures of democracy. Munck and Verkuilen (2002a: 27), on the one hand, argue that “praise is most justified in the cases of Alvarez et al. (1996) [ACLP], who were particularly insightful concerning the selection of indicators and especially clear and detailed concerning coding rules.” When it comes to the more problematic indices, they make explicit reference to Freedom House and Polyarchy, “which exemplify problems in all three areas of conceptualization, measurement, and aggregation” (ibid: 27-28). Hadenius and Teorell (2005: 25), on the other hand, reach a strikingly different conclusion: “This would mean that, on balance, [Freedom House] enjoys priority over Polity, and that the latter in turn comes before ACLP.” The choice of a democracy index must therefore be left to the discretion of the individual researcher.

## **5.3 Corruption**

### **5.3.1 Corruption indices**

The challenge of finding a reliable and meaningful way to gauge the extent of corruption – commonly defined as the misuse of public office or entrusted authority for private gain – has received much scholarly attention over the past decade or so (e.g., Johnston 2000; Lacaster and Montinola 2001; Sampford et al. 2006). Publicly available quantitative measures of corruption are not as plentiful as democracy indices, but a couple of noteworthy indicators are now available to

researchers. This section discusses briefly how corruption can be measured and comments on some issues that may affect the quality and comparability of commonly used corruption indices.

The fundamental obstacle faced by all measures of corruption is that they are trying to tap into a phenomenon that is usually a clandestine activity, where few of the people involved have an interest in reporting cases to the authorities or others (Johnston and Kpundeh 2002: 34). But this does not mean that it is impossible to measure it in some way. Several measuring instruments have been proposed, and a number of indicators have been developed. Still, because of the secrecy that necessarily surrounds corruption, it is quite clear that such measures cannot aspire to offer more than rough but plausible estimates of the extent of the problem in a society.

How, then, can the pervasiveness of corruption be estimated? At a general level, two kinds of data can be used: objective “facts” or “events” and subjective perceptions. Objective measures of corruption may include a number of things, such as the enactment of anti-corruption laws, the number of people convicted on corruption charges or the number of corruption cases reported in the media. But such measures would say more about the willingness and capacity of governments and media to control corruption than about the extent of the problem itself, and are therefore unsuitable for comparative purposes. Hence most proponents of objective indicators argue in favour of using proxy measures, such as indicators that track observable changes in aspects of government and the economy that create incentives for corruption or reveal its effects (Johnston and Kpundeh 2002).<sup>94</sup> Examples of objective indicators are contract intensive money, how long it takes to clear customs or set up a business, the speed of service delivery, and telephone wait times (ibid; Knack and Kugler 2002).<sup>95</sup>

However, these objective indicators do not measure actual corruption, and can only serve as imperfect proxies. Subjective measures – that is, measures based on individuals’ perceptions of and actual experiences with corruption – are therefore often the best, and the only, indicators available (Kaufmann, Kraay and Mastruzzi 2006b). Several distinctions can be made between various types of subjective measures. For example, a distinction can be made between *internal* and *external perceptions*. In the former, the results are based on the views of respondents from within the country, in the latter they are based on the assessments of non-residents (Sudders and Nahem 2004: 11). Another distinction can be made on the basis of the type of sample population. Some

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<sup>94</sup> Such indicators are often referred to as objective measures of “governance”. The term governance is widely used in the literature and a number of publications examining the availability and use of governance indicators are available (e.g., Arndt and Oman 2006; Besançon 2003; Landman and Häusermann 2003; Malik 2002; Sudders and Naham 2004). Yet the concept is frequently so vaguely defined that pretty much any political measure could be dubbed a governance indicator (see Sudders and Naham 2004: 2 for definitions of governance), and we will therefore not use it in this chapter.

<sup>95</sup> Some of these indicators are compiled by the World Bank as part of its Doing Business survey, and published on the website [www.doingbusiness.org](http://www.doingbusiness.org).

indices are based on ratings made by country experts, others on the perceptions of people in key positions (typically business people), and yet others are based on the views of a random sample of the population.

A number of organisations and companies, such as NGOs and risk-rating agencies, conduct surveys that seek to measure people's perceptions about the extent of corruption. However, the geographical scope of many of the surveys is rather restricted and the data are often not easily accessible to the general public. Many of these surveys are therefore of limited relevance to users of ESS data. Yet two corruption indices may prove valuable to ESS users: Transparency International's Corruption Perceptions Index (CPI) and the World Bank Institute's Control of Corruption (CC) index.<sup>96</sup> Both indices – which are freely available online and cover most of the countries in the world – are aggregate measures, in the sense that they combine data from multiple sources to construct a single corruption index. The sources used to construct the aggregate indices include cross-country surveys of companies (e.g., World Business Environment Survey), public opinion polls (e.g., Gallup International's Voice of the People), expert assessment from commercial risk-rating agencies (e.g., Country Risk Review) and expert assessments from inter-governmental organisations, NGOs and think tanks (e.g., Freedom House's Nations in Transit).<sup>97</sup> The statistical methods vary somewhat between the two, but they both standardise indicators from many sources to achieve commensurability, and compute an average of them to obtain a single value for each country (Knack 2006: 16). By this procedure, measurement error is reduced, the substantive content is broadened and the geographical coverage is expanded.

Both the CPI and the CC index are widely used by policymakers and scholars, and the former is also frequently cited in the media. Nonetheless, as the producers of the indices point out, the measures are rather imprecise and should be interpreted with caution (Kaufmann, Kraay and Zoido-Lobaton 1999: 15-19; Lambsdorff 2006: 8). The remainder of this section discusses some issues concerning the indices' conceptualisation and measurement of corruption that ESS users should be aware of. It is important to note, though, that there are many other potential problems associated with the use of such indices; this section will only cover some of the more important issues, and is not meant to be a detailed examination of corruption measures.<sup>98</sup>

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<sup>96</sup> Both indices are presented in Part 2. The World Bank Institute's index is part of a dataset consisting of six governance indicators.

<sup>97</sup> See Lambsdorff (2006) and Kaufmann, Kraay and Mastruzzi (2005a) for an overview of the sources used by Transparency International and the World Bank Institute, respectively.

<sup>98</sup> The corruption indices produced by the two organisations have been subject to much criticism. See, for example, Arndt and Oman (2006), Galtung (2006), Knack (2006) and Thomas (2007). See Kaufmann, Kraay and Mastruzzi (2007) for the World Bank Institute's reply to its critics.

### 5.3.2 Conceptualisation

The World Bank Institute and Transparency International follow similar definitions of corruption, defining it as the exercise or misuse of public power for private gain (Kaufmann, Kraay and Mastruzzi 2005b: 5; Lambsdorff 2006: 3). Although there is no general consensus on how the concept is best understood, this is a common way of defining it.<sup>99</sup> Yet several scholars still find the indices' conceptualisation of corruption problematic (e.g., Galtung 2006; Knack 2006; Thomas 2007). One of the main problems is that neither organisation provides a more detailed definition of corruption: the various attributes that constitute the concept are not identified and the relationship between them is not specified. For example, is the practice of offering gifts or extra favours to potential clients to be considered corruption if the intention is to encourage informal relations with them (Søreide 2005: 3)? And if so, how much weight should such a practice be accorded when constructing a corruption index compared with, say, the payment of massive bribes to secure a contract? Furthermore, what is meant by the *extent* of corruption? Does more corruption mean that instances of corruption are more frequent, or that they involve larger sums of money (Johnston and Kpundeh 2002: 34)? Since the constructors of the indices do not offer clear guidelines for how to classify various acts as either corrupt or legitimate, and since they do not specify what they mean by "more corrupt", it is difficult to know exactly how corruption is defined.

This problem stems largely from the fact that aggregate indices almost by necessity have a rather vague definition: since they rely on data from a variety of sources, they are defined implicitly by what goes into them (Arndt and Oman 2006: 51; Knack 2006: 18). Even though both the World Bank Institute and Transparency strive to incorporate only indicators that measure some aspect of corruption, the various indicators frequently measure slightly different things. Some indicators focus on bribery in the private sector, others on misuse of public office, and yet others measure people's perceptions of the general level of corruption in a society. This is not necessarily a bad thing; by combining indicators that measure different forms of corruption, the substantive content of the aggregate indices is broadened and it is possible to get estimates of the overall level of corruption. Nonetheless, the problem remains that the definition of the concept is rather vague, and there is some uncertainty concerning exactly what the indices measure. Furthermore, since different sources are used for different countries, it is possible that corruption is implicitly defined in a slightly different manner across countries (Knack 2006: 18).

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<sup>99</sup> See Brown (2006) and Lacaster and Montinola (1997) for discussions of different definitions.

### 5.3.3 Measurement

Users of corruption indices should note at least three things concerning the measurement process. First, both indices measure people's *perceptions* about corruption, not the thing itself. It seems reasonable to assume that people's perceptions are closely related with the actual extent of the problem, but this may not always be the case. For example, the establishment of ineffective government programmes to tackle corruption may alter people's perceptions for the better without leading to a significant reduction of the problem. On the other hand, serious and effective reforms leading to new revelations, trials and convictions may cause people to believe that corruption is getting worse (Johnston and Kpundeh 2002: 34).

Second, even when it comes to measuring people's perceptions, the indices are rather imprecise. Kaufmann, Kraay and Mastruzzi (2006a: 13), who are responsible for producing the World Bank Institute's corruption index, stress that the "confidence intervals are substantial relative to the units in which governance is measured" and that "it is therefore more useful to focus on the *range* of possible governance values for each country" (emphasis in original). Even though both the World Bank Institute and Transparency warn their users against interpreting the indices as precise measures of corruption, many people still treat them as such. It is therefore pertinent to emphasise that users should take the standard errors and high-low range into account when interpreting the corruption indices.

The third issue concerns the comparability of the data over time. Year-to-year comparisons are particularly problematic in the case of Transparency's index. The index is constructed based on how the various indicators that go into it *rank* countries, and not how they score them (Lambsdorff 2006: 6). As a result, a change in the score of a particular country on Transparency's index may just as well be caused by changes in the perceived performance of other countries as changes in the country in question (Sudders and Nahem 2004: 33). In addition, changes in the sample, methodology and component indicators may also reduce the comparability of the index over time. In fact, Transparency asserts that "The index primarily provides a snapshot of the views of business people and country analysts, with less of a focus on year-to-year trends" (Lambsdorff 2006: 3). Changes over time in the World Bank Institute's index must also be made with caution, even though the methodology used to construct this index produces a measure that more easily lends itself to comparisons over time.<sup>100</sup>

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<sup>100</sup> See Kaufmann, Kraay and Mastruzzi (2005b: 12-15) for more details about margins of error and changes over time.

### 5.3.3 Summary

This section has examined how clandestine activities such as corruption can be measured. It has also pointed to some of the issues that may affect the comparability and quality of corruption indices. Subjective measures of corruption, such as the World Bank Institute's Control of Corruption index and Transparency's Corruption Perceptions Index, are valuable sources of information and should be of relevance to ESS users who are interested in measures of corruption. The World Bank Institute's index in particular appears to be carefully constructed with a mindful eye to the problems of measurement error. Still, corruption is inherently difficult to measure, and both indices must be interpreted with caution.

## 5.4 Human rights

### 5.4.1 Human-rights indicators

It is notoriously difficult to measure, in a quantitative manner, the adherence to and implementation of human rights, and some scholars have expressed doubts whether the exercise is worthwhile at all (Goldstein 1992). Nonetheless, since the early 1970s, human-rights scholars and practitioners have been developing a wide range of indicators (UNDP 2006: 2), and there are now several measures available that could be of interest to ESS users. Some indicators attempt to measure the respect for civil and political rights generally, such as the indices published in Freedom House's annual *Freedom in the World*. But most indicators have a more narrow focus, singling out specific aspects or rights for measurement: Hathaway (2002) has created indices of torture and free trial; the Political Terror Scale (PTS) measures the respect for rights associated with the integrity of the person; several organisations publish indices measuring the degree of press freedom around the world (e.g., Freedom House and Reporters sans frontières); the Minorities at Risk project track, among other things, discrimination against ethnic and cultural minorities; and the Cingranelli-Richards (CIRI) Human Rights dataset contains data on physical integrity rights and other civil rights. All these indicators cover most of the countries in the world, and some of them have a fairly long time scope and are regularly updated.<sup>101</sup>

Some of the indicators are widely used by journalists, policymakers and academics, but several scholars have challenged their quality and comparability. This section examines how

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<sup>101</sup> With the exception of Hathaway's (2002) indices, all of these datasets are described in Part 2.

existing indicators conceptualise and measure human rights, and discusses briefly some of the problems associated with human-rights measurement.<sup>102</sup>

#### 5.4.2 Conceptualisation

Many political concepts and phenomena, such as democracy and corruption, are difficult to define in an unequivocal way. In principle, there is much greater conceptual clarity when it comes to human rights, since they have been codified in a wide range of United Nations (UN) and regional treaties (Landman and Häusermann 2003: 3). In fact, the Universal Declaration on Human Rights, adopted by the UN General Assembly in 1948, and later UN treaties underlie most of the reporting on human rights (Claude and Jabine 1992: 12). The rights laid down in these treaties are often divided into two broad categories (UNDP 2006: 4). *Civil and political rights* guarantee the individual's right to participate freely in civil, economic and political society. Civil rights include (but are not limited to) personal integrity rights such as the right to life, liberty and personal security; the right to equality before the law; and the right to religious freedom and worship. Political rights include the right to speech and expression, the right to assembly and association, and the right to political participation.<sup>103</sup> *Economic, social and cultural rights*, on the other hand, promote the individual's social and economic development and cultural identity (ibid; see also Green 2001: 1067-1070).

Most scholars agree that the various aspects of human rights cannot be meaningfully understood as one monolithic concept, measured on a single scale (Goldstein 1992: 39). All extant human-rights indicators therefore focus on a limited number of more or less clearly defined rights. Usually, civil and political rights are given the most attention (Landman 2004: 928), and many studies focus exclusively on personal integrity rights (McCormick and Mitchell 1997: 510). The indicators examined in this report are mainly concerned with civil and political rights.<sup>104</sup>

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<sup>102</sup> Readers who are interested in a more detailed analysis of human rights indicators can consult a fairly large literature. For general discussions of statistical measurement of human rights, see Barsh (1993), Bollen (1986), Claude and Jabine (1992), Goldstein (1992), Green (2001), Landman (2004), Malhotra and Fasel (2005), and UNDP (2006). For assessments of some of the most widely used human rights indicators, see Becker, Vlad and Nusser (2007), Hathaway and Ho (2004), Landman and Häusermann (2003), McCormick and Mitchell (1997) and Skaaning (2006).

<sup>103</sup> The classification of various rights as political or civil differs somewhat between sources; many consider the right to assembly and free speech to be civil rights.

<sup>104</sup> The exception is the Minorities at Risk data, which monitor the status and conflicts of so-called communal groups in various countries. The focus on civil and political rights does not imply that these are more important. Human-rights advocates usually maintain that all human rights – be they civil, political, economic, social or cultural – are indivisible, absolute and inter-dependent (Landman and Häusermann 2003: 3). We focus on civil and political rights because it has proven difficult to distinguish indicators of economic and social rights from general development indicators (Green 2001: 1090; Hertel 2006). In practice, therefore, socio-economic development statistics are often used as proxy measures for these rights (UNDP 2006: 10).

Even though human rights are codified in international treaties, some room for conceptual ambiguity remains (Goldstein 1992: 38). In practice, the treaties do not define each right in sufficient detail to provide a basis for reliable measurement (Claude and Jabine 1992: 12), hence producers of indicators must clearly specify how the various aspects of human rights are defined in each instance. The available indicators differ as to how they deal with this task, and some scholars argue that there is a general lack of conceptual clarity in human-rights measurement (Barsh 1993: 99-100).

Freedom House's index of civil rights is based on a very broad conceptualisation of rights.<sup>105</sup> The index includes a large number of attributes that are clearly relevant as human-rights concerns, such as freedom of assembly and protection from unjustified imprisonment or torture (Freedom House 2006a). However, a fundamental problem with the index is that it combines so many different factors into a single scale, without specifying the relationship between them, that it is difficult to establish what it really measures (Stohl et al. 1986: 598-599). While the index may say something about the general state of the human-rights situation in a country, it is of little use in distinguishing between different forms of rights violations.

A more fruitful approach seems to be to focus on specific rights. For example, the Cingranelli-Richards dataset contains indicators of particular human-rights issues, such as the freedom of religion, the extent of torture and the use of political imprisonment. Each indicator is given a fairly detailed definition in the coder manual (Cingranelli and Richards 2004), with an explicit reference to international law. Though some may disagree on the details of the definitions, most users will have a fairly clear understanding of what the indicators are trying to measure. However, even indicators that measure a rather narrow aspect of human rights have been criticised for measuring multidimensional concepts unidimensionally. The Political Terror Scale, for example, tries to measure the level of "political terror" in various countries, focusing on the use of political imprisonment, torture and political murder (Gibney and Dalton 1996). McCormick and Mitchell (1997) argue that this conceptualisation of political terror confounds two important components of the concept – the use of imprisonment and the use of torture and killing – that are substantially different. This illustrates that scholars frequently disagree on how to conceptualise human rights, and ESS users should therefore examine carefully how the indicators they use define specific rights.

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<sup>105</sup> The Freedom House indices of political and civil rights are, as noted in Section 5.2.1 above, usually considered to be measures of democracy. However, the indices are sometimes used also to measure human rights practices (e.g., Park 1987), and Landman and Häusermann (2003: 26) and Skaaning (2006: 4) cite the Freedom House civil liberties index as an example of a human rights indicator.

Human rights can also be conceptualised too narrowly. The Cingranelli-Richards dataset, for example, is only concerned with human-rights-related actions of governments and their agents, such as the police or paramilitary forces, and it does not take violations against foreign nationals, refugees or undocumented immigrants into account (Cingranelli and Richards 2004: 5-6). The decision to focus on government-sanctioned actions can be justified on the grounds that this is an analytically distinct issue that needs to be measured separately. But the focus on citizens only seems dubious: the preamble of the International Covenant on Civil and Political Rights, on which the definitions in the dataset are based, clearly states that the rights pertain to “all members of the human family”.<sup>106</sup> There are, in other words, no legal reasons to ignore violations committed against foreign nationals, and the practice is not given any theoretical justification either.

### 5.4.3 Measuring human rights

At a general level, three aspects or dimensions of human rights can be measured: human rights in principle, human rights in practice and outcomes of government policies. *Human rights in principle* concerns the formal commitment (or lack thereof) to human rights (Landman 2004: 911-915). This aspect can be measured, for example, by counting the number of international human-rights treaties a country has ratified, or by examining how human rights are protected in national law. Information on treaty ratification can be found on several websites, for example the Office of the High Commissioner of Human Rights’ website and the Bayefsky Treaty Database.<sup>107</sup>

*Human rights in practice* relates to the rights actually enjoyed by groups and individuals, regardless of the formal commitments made by governments (ibid: 916-924). Arguably, this is a much more important aspect, since the human-rights practices of governments may diverge substantially from their official policies. It is also a much more difficult aspect to measure in a reliable and meaningful way. Governments are unlikely to provide relevant data on their human-rights record, and the more repressive a regime is, the more difficult it makes access to information on its human-rights abuses (Goldstein 1992: 45).

Still, human rights in practice can be measured. Three types of data are used for this purpose: first, *events-based* data register the number and type of human-rights violations committed against groups and individuals (Landman 2004: 918). Examples of events-based data are counts of extra-judicial killings and incidences of arbitrary arrest and torture. Second, *standards-based* data

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<sup>106</sup> See the website of the Office of the High Commissioner of Human Rights for the complete text of the covenant: [http://www.unhchr.ch/html/menu3/b/a\\_ccpr.htm](http://www.unhchr.ch/html/menu3/b/a_ccpr.htm) (25 June 2007).

<sup>107</sup> See <http://www.ohchr.org/english/law/index.htm> and <http://www.bayefsky.com/> (26 June 2007).

are typically based on experts' assessment of the human-rights situation in a country or region, translated into quantitative scales that are intended to achieve commensurability across geographical units and over time. Constructing standards-based measures thus involves applying some sort of scale to qualitative information, often relying on events-based data (ibid.). The quantitative scales are meant to provide aggregate and comparable information about how often and to what degree human-rights violations occur in various countries. Finally, *survey-based* data use samples of people who are asked questions on, say, their perception of the human-rights situation in their country, or their support for human rights (ibid.).

The third aspect of human rights concerns *the outcomes of government policies* that have a direct bearing on human-rights protection (ibid: 924-926). This aspect can be measured, for example, by using development indicators to examine to what degree governments realise the economic, social and cultural rights of their citizens.

The human-rights indicators presented in Part 2 are primarily concerned with the adherence to human rights in practice, though some of them also incorporate the formal commitment of states to specific human rights. We will therefore examine more carefully some issues that may affect the comparability of indicators that purport to measure human-rights practices across countries.

#### **5.4.4 Problems of measurement**

The main problem with measuring human-rights practices is the lack of comparable data. Since the worst perpetrators of human-rights violations do their best to conceal their crimes, official statistics are of little or no use. Hence events-based data typically make use of a number of sources, including news reports, direct reporting from victims, information from single-issue organisations, governments reporting on the human-rights situation in other countries (in particular the US State Department's *Country Reports*), regional institutions and UN specialised agencies. A particularly important source is international NGOs such as Amnesty International and Human Rights Watch, which regularly publish reports on the human-rights situation around the world (Claude and Jabine 1992: 14-15). However, while the reliability of NGO reports is reputed to be high, they do not provide a systematic and comprehensive coverage of human-rights violations (ibid: 16; Landman 2004: 923). Governmentally imposed barriers further exacerbate this problem (Goldstein 1992: 41), as do political and ideological biases of some

sources (UNDP 2006: 11).<sup>108</sup> As a result, reporting on human rights is often haphazard in nature, making it difficult to produce measures that are comparable over time and across countries.

The problems with events-based data are often translated into the standards-based data. Most producers of standardised scales use country reports from NGOs – in particular Amnesty International’s *Annual Reports* and Human Rights Watch’s *World Reports* – or the US State Department as their primary source material (Skaaning 2006: 10).<sup>109</sup> However, these sources rarely report data in quantitative form, and Amnesty, for example, explicitly refuses to rank countries based on their human-rights record (Stohl et al. 1986: 594). When such reports are used to code the human-rights performance of various countries on a standardised scale, the problems of comparability in the events-based data may be transferred into the standards-based data. Thus, strictly speaking, a change in a country’s score on a standardised scale only means that the number and/or kind of violations reported by, say, the US State Department and Amnesty have changed; it does not necessarily mean that there has been an actual change in the human-rights situation, or that the change has been in the direction indicated by the standardised scale (Barsh 1993: 100). The Cingranelli-Richards dataset, for example, codes countries based on the reports published annually by Amnesty and the US State Department. On the torture variable, Poland is given the score 2 in 1999, indicating that torture is not practiced; 0 in 2000, indicating that torture is practiced frequently; and 1 in 2001, indicating that torture is practiced occasionally (Cingranelli and Richards 2007). While it is possible that there were dramatic shifts in the degree to which torture was practiced over the three years, it seems more likely that the scores reflect variations in the *reporting* of violations, and not in the *use* of torture as such.

Another potential problem in the process of coding standardised scales concerns the choice of measurement level. As is the case with democracy indices, human-rights indicators should avoid the extremes of introducing distinctions that are either too fine-grained or too coarse-grained. Freedom House’s index of press freedom is an example of the former: based on a checklist of 23 methodology questions divided into three categories (the legal, political and economic environments), it measures press freedom using an index that ranges from 0 (best) to 100 (worst) (Freedom House 2006b). Owing to the inherent difficulty in measuring a concept like press freedom, it seems unreasonable to assume that the data can support such precise

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<sup>108</sup> The US State Department’s *Country Reports* have occasionally been charged with biased reporting, particularly during the 1980s. In a comparison of US State Department and Amnesty International reports on human rights, Poe, Carey and Vazquez (2001) find some (very limited) support for these accusations.

<sup>109</sup> The State Department’s and Amnesty’s reports are the primary sources used to code Hathaway’s (2002: 1969–1974) torture and free trial indices, the Cingranelli-Richards (2004: 4) dataset and the Political Terror Scale (Gibney and Dalton 1996: 73).

distinctions. Users of the data should therefore interpret fine-grained distinctions with caution, but unfortunately, Freedom House does not give any estimate of the margins of error of the data.

Indicators that use too coarse-grained scales are also problematic, since they are likely to force countries that differ markedly on their human-rights record into the same category. The Cingranelli-Richards dataset, which mainly uses dichotomous and trichotomous measures, illustrates this point. On the variable “freedom of assembly and association”, for example, Germany and Azerbaijan are both given the score 1 for most of the years in the 1999-2004 period (Cingranelli and Richards 2007). This score is supposed to indicate that citizens’ rights to freedom of assembly and association are limited for all citizens or severely restricted for select groups.<sup>110</sup> In the case of Germany, this score is assigned due to the government’s banning of rallies and marches by neo-Nazi groups, rightwing radical groups, terrorist organisations and other groups that advocate the violent overthrow of the government (Cingranelli and Richards 2004: 23). In the case of Azerbaijan, the score is probably assigned on the basis of governmental restrictions on the right to freedom of assembly and association in practice. According to the US State Department’s (2005) country report on human-rights practices in the country, the government only sanctioned one rally during 2004, and the authorities “repeatedly denied requests from (...) opposition political parties during the year for permits, and police frequently broke up pickets and demonstrations, at times detaining protestors”. The restrictions on the right to freedom of assembly and association in the two countries are thus substantially different in degree and kind, and it seems problematic to put them in the same category.

A final problem that users of human-rights indicators should be aware of concerns the interpretation of the data. This is a particularly challenging task in the case of human-rights measures. In fact, even if it were possible to measure human-rights violations correctly, the data would be difficult to interpret since highly different situations could be scored in the same manner. For example, none or few incidences of torture and extra-judicial killings in a country may imply that the government generally respects basic human rights. It may also imply, however, that past repression has proved so effective that the population is too terrified to dissent (Goldstein 1992: 52-53).<sup>111</sup> Similarly, a large number of journalists killed or imprisoned in a country do not necessarily imply a lower level of press freedom than in a country where no journalists are harassed by the government. In countries where journalists are merely the mouthpieces of the state, governments have no reason to harm them. Hence a rise in violence

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<sup>110</sup> Countries with virtually no restrictions are given the score 2.

<sup>111</sup> A related issue concerns the relationship between different human rights abuses: a regime that kills most of its political opponents has, obviously, no reason to imprison them afterwards. Such a regime could, in theory at least, score rather well on an indicator measuring the use of political imprisonment (McCormick and Mitchell 1997: 516).

against journalists might actually reflect their increasing freedom to report on the abuse of power by governments and other powerful institutions (Djankov et al. 2003: 366).<sup>112</sup>

#### **5.4.5 Summary**

In sum, then, human-rights issues are particularly difficult to measure quantitatively. It is difficult to say whether differences in scores across countries, or over time in the same country, reflect actual differences and changes, or whether they are simply caused by unreliable sources. All human-rights indicators are fraught with measurement errors (Hathaway and Ho 2004), and their comparability and accuracy is open to question in most instances. Moreover, even in cases where the number of abuses is known, the data may be difficult to interpret in a meaningful way, since few human-rights violations may be a result of generalised fear of the government's security apparatus.

The problems of measurement have led some to argue that human-rights indicators are of little use in comparing the situation in various countries. Goldstein (1992: 55), for example, argues that “small differences in human rights ‘scores’ between countries or across time within one country are not ever likely to be very credible as an accurate indicator of real change”. On the other hand, some scholars find measures of human rights to be highly useful. According to Poe, Tate and Keith (1999: 297), for instance, “it certainly is possible to provide meaningful estimates of the extent of human rights abuses”. Whether or not human-rights indicators should be used in statistical analyses is therefore a question that must be left to the discretion of the individual researcher. The only general advice that can be offered is to use such measures with prudence.

#### **5.5 Summary**

Even though the generation of comparable data on politics still lags behind that on other aspects of society, a large number of datasets containing measures of political issues are now available. Several organisations, research institutions and independent research projects publish political data on the internet, giving scholars easy access to quantitative data on a wide range of political topics. The available data sources provide information on, among other things, political institutions, regime type, the level of corruption and the adherence to human rights in a large number of countries, sometimes over a fairly long time period.

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<sup>112</sup> See also The Economist, “Press freedom: Prometheus unbound, a bit”, 18 December 2004.

Yet easy access to political data may also be a problem. Political indicators are sometimes taken to be objective and flawless measures, and some users may be tempted to treat them as such. When datasets are easily downloaded from the internet, researchers may use them in analyses with little regard for the inherent uncertainty that all political data are subject to. This uncertainty is caused by several factors. First, the same concepts are often defined differently in various datasets, leading to some confusion concerning what the data really measure. In many cases there is also a basic lack of clarity on conceptual matters, and some datasets fail to provide theoretically founded and sufficiently detailed definitions of the phenomena they are trying to measure. The conceptualisation of democracy is a case in point here: even though most definitions of the concept are broadly similar in spirit, they differ markedly in their details. Furthermore, many democracy indices are not explicitly grounded in democratic theory, and some also omit central features in their definition of the concept.

Second, even when the concepts that are being measured are clearly defined, the choice of indicators – that is, the observables used to operationalise various concepts – may be problematic. In several instances, existing measures fail to ensure that the indicators fully cover the meaning of the concepts that are being measured (Munck 2005: 432). Vanhanen's (2000) use of voter turnout and the largest party's share of the vote to measure, respectively, participation and competition, illustrate this point.

And third, the measurement process is often fraught with problems. Most political concepts are not directly observable, and must therefore be measured using proxy variables or alternative indicators. It is often unclear to what degree the observable indicators tap into the phenomena they are used to measure. This is particularly apparent in attempts to gauge clandestine activities such as corruption and human-rights abuses, where a general lack of data makes existing measures uncertain. Furthermore, measurement error is an inescapable part of any attempt to generate quantitative data in the social sciences, and even variables measuring seemingly objective traits of political systems contain errant values.

This is not to say that quantitative data on politics should not be used. Clearly, statistical analyses of political institutions, democracy and corruption have contributed greatly to our knowledge of these phenomena. But it is important to bear in mind that all political indicators and indices are inherently uncertain, and they should therefore be used with care and prudence (Munck 2005: 429). ESS users who incorporate political data in their analyses should examine the indicators carefully in advance, and attempt to factor measurement error into the conclusions derived from the use of such data.

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Vanhanen, Tatu. 2000. "A new dataset for measuring democracy, 1810-1998". *Journal of Peace Research* 37 (2): 251-265. [Dataset: [http://www.prio.no/page/Project\\_detail//9244/42472.html](http://www.prio.no/page/Project_detail//9244/42472.html) (12 June 2007).]

Wilhelmsen, Lars. 2006. *A Democratic Peace Revisited: Measuring Democracy in International Relations*. Master's thesis, University of Oslo. <http://www.prio.no/page/cscw/datasets/9649/47890.html> (12 June 2007).

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## Part 2: Data sources

### General information

This part of the report contains information on 50 different sources of contextual data that may be of relevance to ESS users. The data sources vary greatly in focus and scope, and include: general databases containing social and economic data; large, general datasets with a number of political variables; indicators and indices produced by non-governmental and inter-governmental organisations; and datasets compiled by independent research projects.

The aim of the overview provided in this part is not to cover all contextual datasets that may be of relevance to ESS users. Rather, we have sought to cover most of the major data collections, such as the databases maintained by Eurostat, the OECD and the World Bank. In addition, we have included a number of datasets from more specialised institutions and independent research projects, primarily in order to illustrate the diversity of available data sources, but also because they may be of interest to many ESS users.<sup>113</sup>

The sources are listed in alphabetical order, either by the name of the institution or research project producing the data, or by the name of the dataset. In cases where we believe that the name of the institution is better known than the name of the dataset, the source is listed under the name of the institution.<sup>114</sup> Otherwise, the sources are listed by the name of the dataset.<sup>115</sup>

In Section 51, at the end of this part, we provide an overview of the various topics covered by the datasets, and list the sources that contain data on each topic.

### Sources and timeliness of information

The overview of data sources is mainly based on information published at the various institutions' and research projects' websites. We have also consulted independent reviews of databases published in journals and working papers. In addition we have, in a few cases, made direct contact with the institutions or researchers maintaining the datasets.

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<sup>113</sup> For an overview of other data sources that may be of interest to ESS users, see Internet Crossroads in Social Science Data (<http://www.disc.wisc.edu/newcrossroads>), a website maintained by the Data and Information Services Center. The website contains over 825 annotated links to data-related resources on the internet. Scholars may also find the ICPSR's International Data Resource Center (<http://www.icpsr.umich.edu/IDRC/>) useful.

<sup>114</sup> Eurostat's Dissemination Database, for example, is listed under E, not D.

<sup>115</sup> Some of the datasets compiled for specific research projects have not been given an official name. In such cases, we name the dataset after the article or book in which the results of analyses of the data were published.

Most of the sources were examined between October 2006 and May 2007, and the information should therefore be fairly up to date. We have also tried to keep track of changes that have occurred since then, though some things may have passed us by. Yet an overview of data sources available on the internet is bound to be outdated fairly soon, perhaps even before it is published: new variables are added, some old ones are removed, the name of databases are changed, dissemination systems are improved, and URLs are altered. Readers who use this report as a guide to sources of contextual data may therefore find that some of the information is no longer correct.

## Outline of the overview of data sources

Each data source is described according to a standard format, organised in six main sections:

### 1. General information

- Brief background information on the institution producing the data or on the research project for which the data were compiled.
- Contact details and link to website.

### 2. Contents

- Information about the *types of data* the source contains, for example whether the data are expert-coded, based on national accounts, taken from surveys or compiled from administrative records and official registers.
- Brief description of the *topics* covered by the source. Examples of topics are demography, education, macro-economy, employment and unemployment, elections, political institutions and human rights. In most cases, detailed lists of variables and tables are available in separate appendices, which can be downloaded from <http://ess.nsd.uib.no>.
- Geographical and temporal *coverage*, and information on whether the dataset will be *updated*. Lists of countries covered by each data source are available in appendices, which can be downloaded from <http://ess.nsd.uib.no>. ESS countries that are not covered or only partially covered by the source are listed in the text.<sup>116</sup>

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<sup>116</sup> Note that the geographical coverage of a data source may vary significantly, depending on the variable. Hence in many cases data are missing on certain variables even for some of the countries not listed as “not covered” or “partially covered”. The term ESS country refers to a country that has participated at least once in the survey. In all,

- Brief assessment of the *documentation* of the data, and information on where to find it.

### 3. Accessibility

- Information on *access conditions and costs*.
- Description (and sometimes assessment) of the *access procedures*. Some of the data sources provide access to the data through interactive applications; where relevant we explain briefly how they function and assess their user friendliness. Many data sources only provide static files, where all the data can be downloaded in a single dataset. In such cases we simply refer to the access procedure as “predefined table”.
- *Data formats* available for download.

### 4. Comparability and data quality

- We sometimes comment briefly on the comparability and quality of the data provided by the sources. However, we wish to emphasise that these issues have not been examined systematically: some sources are examined more carefully than others, and some have not been assessed in terms of data quality at all. Hence a negative assessment of a source does not necessarily mean that its data are of a poorer quality than those of other sources. Some sources are candid about problems associated with the quality of their data, while others congratulate themselves – sometimes unjustifiably – for producing data that are “the best” in terms of quality and comparability.

### 5. Relevance to ESS users

- A short comment on whether and how the source may be of relevance to ESS users.

### 6. Sources

- List of sources cited in the section.
- List of electronic resources that may be of relevance to users.

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32 countries have participated in the first three rounds of the survey: Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Sweden, Switzerland, Spain, Turkey, Ukraine and the United Kingdom. See Appendix A for details about which rounds the various countries have participated in.

- Link to the website from which the data can be downloaded.
- List of appendices available at <http://ess.nsd.uib.no>.
- Name of NSD staff who documented the data source (Sveinung Arnesen, Lars Tore Rydland or Åse Gilje Østensen).

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## 1. ACLP Political and Economic Database

### 1.1 General information

#### Research project

The ACLP Political and Economic Database was originally produced by Michael Alvarez, José Antonio Cheibub, Fernando Limongi and Adam Przeworski for the project Democracy and Development, which sought to examine the emergence and durability of democratic regimes. The project resulted in several articles (e.g., Alvarez et al. 1996; Przeworski and Limongi 1997; Przeworski et al. 1996) and the book *Democracy and Development* (Przeworski et al. 2000). In 2004, the dataset was updated and extended by Cheibub and Jennifer Gandhi to cover more countries and a longer time period.

#### Dataset

ACLP Political and Economic Database

#### Contact details and website

Website: <http://www.ssc.upenn.edu/~cheibub/data/Default.htm>

### 1.2 ACLP Political and Economic Database

#### 1.2.1 Contents

##### Data types and sources

Most of the regime variables are coded by the producers of the dataset, based on historical monographs and other source materials. The social and economic variables contain data from national accounts, official registers and household surveys.

##### Topics

The dataset contains 105 variables (including lagged variants and country identifiers). The core of the dataset is constituted by the regime variables, which classify political regimes according to several criteria. The most important variable is a dichotomous measure of democracy. In addition, the dataset contains economic indices, social variables, religious measures and other political variables. See Appendix C.1 for a list of variables.

### Geographical coverage

The original dataset covers 135 countries, including 28 European ones. Cheibub and Gandhi's updated version covers more countries. See Appendix C.1 for a list of countries.

- ESS countries not covered: Ukraine, Slovenia, Latvia, Estonia and Cyprus.
- ESS countries partially covered: Russia, Slovakia and Czech Republic.<sup>117</sup>

### Time coverage and updates

The original dataset contains data for the 1950-90 period; the Cheibub-Gandhi update covers the years 1946-2002. The frequency of updates is not stated.

### Documentation

All variables are described in brief in the codebook, which is available online. The codebook is not very detailed, and in many cases users must refer to other publications to learn how the variables were collected and coded. The dichotomous measure of democracy is described in detail in Alvarez et al. (1996) and Przeworski et al. (2000), but the coding rules for some of the other regime variables are not clearly stated. The social and economic variables are described in the original sources. The updated version is described in Cheibub and Gandhi (2004). See also Sousa (2003) for a review of the database.

## **1.2.2 Accessibility**

### Access conditions and costs

The original version of the dataset is available online, free of charge. The Cheibub-Gandhi update is not available online, but some of the regime variables can be found in other freely available datasets, such as the Quality of Government Institute's QoG Time-Series Data (see Section 37) and Pippa Norris's Democracy Indicators Cross-National Time-Series Dataset (link provided in the sources section).

### Access procedures

Predefined table. The entire dataset (original version) can be downloaded from Cheibub's website at the University of Pennsylvania or from an APSA-CP website (links provided in the sources section). The dataset is organised in country-year format.

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<sup>117</sup> Dataset covers period prior to the break-up of the Soviet Union and Czechoslovakia; these two countries are included in the dataset.

### Data formats

Cheibub's website: Excel

APSA-CP: Excel and SPSS

### **1.2.3 Comparability and data quality**

The regime variables coded by the producers of the dataset have received good reviews on methodological grounds, but they have also been subject to much criticism. In particular, the minimalist definition of democracy and the use of a dichotomous measure have been criticised. See Hadenius and Teorell (2005), Munck and Verkuilen (2002) and Chapter 5 (Part 1) for a detailed discussion of the comparability and quality of democracy indices in general.

The other variables in the dataset are collected from widely used sources such as the World Bank, the Penn World Table and Arthur Banks's *Handbook of Political Indicators*. The use of well-known sources may give the measures some credibility. However, as Sousa (2003) notes, extensive usage does not guarantee validity and reliability.

### **1.2.4 Relevance to ESS users**

The ACLP dataset may be of relevance to ESS users who wish to incorporate a measure for regime type in their analyses. It can also be used as a source of social and economic indicators, though most users will probably find the original sources better suited for this purpose.

## **Sources**

### Publications

Alvarez, Michael, José Antonio Cheibub, Fernando Limongi and Adam Przeworski. 1996. "Classifying political regimes". *Studies in Comparative International Development* 31 (Summer): 1-37.

Cheibub, José Antonio, and Jennifer Gandhi. 2004. "Classifying political regimes: a six-fold measure of democracies and dictatorships". Prepared for the annual meeting of the American Political Science Association, Chicago, September 2004

Hadenius, Axel, and Jan Teorell. 2005. "Assessing alternative indices of democracy". C&M Political Concepts Working Papers 6, IPSA (August).

[http://www.concepts-methods.org/papers\\_list.php?id\\_categoria=1&titulo=Political%20Concepts](http://www.concepts-methods.org/papers_list.php?id_categoria=1&titulo=Political%20Concepts) (5 June 2007).

Munck, Gerardo L., and Jay Verkuilen. 2002. "Conceptualizing and measuring democracy: evaluating alternative indices". *Comparative Political Studies* 35 (February): 5-34.

Przeworski, Adam, and Fernando Limongi. 1997. "Modernization: theories and facts". *World Politics* 49 (January): 155-183.

Przeworski, Adam, Michael E. Alvarez, José Antonio Cheibub and Fernando Limongi. 1996. "What makes democracies endure?" *Journal of Democracy*, Vol. 7, No. 1 (January): 39-55.

Przeworski, Adam, Michael E. Alvarez, José Antonio Cheibub and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. Cambridge: Cambridge University Press.

Sousa, Mariana. 2003. "A review of the ACLP dataset". *APSA-CP Newsletter* 14 (Summer): 27-29.

#### Electronic resources

Pippa Norris's Democracy Indicators Cross-National Time-Series Dataset:  
<http://ksghome.harvard.edu/~pnorris/Data/Data.htm>

#### Data download

APSA-CP:  
<http://www.nd.edu/~apsacp/data.html>

José Antonio Cheibub:  
<http://www.ssc.upenn.edu/~cheibub/data/Default.htm>

#### Appendices

1. List of variables
2. List of countries

#### Author of documentation

Data source documented by Rydland.

## 2. Centripetal Democratic Governance

### 2.1 General information

#### Research project

The Centripetal Democratic Governance dataset was compiled by John Gerring, Strom Thacker and Carola Moreno for a study that examined various political institutions' impact on the quality of governance. The results were published in Gerring, Thacker and Moreno (2005).

#### Dataset

Centripetal Democratic Governance (CDG) dataset

#### Contact details and website

Strom C. Thacker  
Boston University  
Email: [sthacker@bu.edu](mailto:sthacker@bu.edu)  
Website: <http://www.bu.edu/sthacker/>

## 2.2 Centripetal Democratic Governance

### 2.2.1 Contents

#### Data types and sources

Most of the political variables were coded by the producers of the dataset. The dataset also contains some variables based on national accounts, official registers and surveys.

#### Topics

The dataset consists of 42 variables. The core of the dataset is constituted by a set of political variables measuring the degree to which government institutions centralise power. In addition, the dataset contains social and economic variables and measures of bureaucratic quality, most of which are reproduced from other sources. See Appendix C.2 for a list of variables.

#### Geographical coverage

The dataset covers 225 countries, but many of the political variables are only available for countries that surpass a minimum threshold of democracy. All ESS countries are covered by the source. See Appendix C.2 for list of countries.

### Time coverage and updates

Years covered: 1960-2001.

No updates planned.

### Documentation

Short variable definitions are available in an Excel file, which also contains the actual data. The political variables constructed by the producers of the dataset are described in Gerring, Thacker and Moreno (2005), but not in sufficient detail to allow independent researchers to reproduce the results. Users must consult the original sources to get detailed information about the variables reproduced from other datasets.

## **2.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined table. The entire dataset can be downloaded in a single file, organised in country-year format.

### Data formats

Excel, Stata and TXT.

## **2.2.3 Comparability and data quality**

Not examined. See Chapter 5 for a general discussion of the comparability and quality of statistics on political institutions.

## **2.2.4 Relevance to ESS users**

The political variables may be of relevance to ESS users interested in government institutions and bureaucratic quality.

## Sources

### Publications

Gerring, John, Strom C. Thacker and Carola Moreno. 2005. "Centripetal democratic governance: a theory of global inquiry". *American Political Science Review* 99 (November): 567-581.

### Data download

Centripetal Democratic Governance:

<http://www.bu.edu/sthacker/>

### Appendices

1. List of countries
2. List of variables

### Author of documentation

Data source documented by Rydland.

## 3. CIRI Human Rights Project

### 3.1 General information

#### Research project

The Cingranelli-Richards (CIRI) Human Rights dataset is compiled under the supervision of David L. Cingranelli and David L. Richards. The dataset contains standards-based quantitative information on government respect for 13 internationally recognised human rights in most of the countries in the world, and has been used in several studies of human-rights practices, e.g. Cingranelli and Richards (1999).

#### Dataset

The CIRI Human Rights Dataset

#### Contact details and website

CIRI Human Rights Data Project

Email: [info@humanrightsdata.org](mailto:info@humanrightsdata.org)

Website: <http://www.humanrightsdata.org>

### 3.2 CIRI Human Rights Dataset

#### 3.2.1 Contents

##### Data types and sources

Expert coding. Every unit of analysis is independently coded by at least two trained coders, who meet with senior CIRI staff to resolve any disagreements. The indicators are based on US State Department and Amnesty International reports.

##### Topics

The variables in the CIRI dataset can be grouped in three main categories. The first category contains four variables dealing with violations of physical integrity rights, such as torture and extrajudicial killing. The six variables in the second category deal with other civil rights, e.g. freedom of speech and freedom of assembly, and the right to political participation. Finally, three variables cover the political, economic and social rights of women. See Appendix C.3 for list of variables.

### Geographical coverage

The CIRI database is practically global in scope, covering 200 countries (present and historical). All ESS countries are covered by the source. See Appendix C.3 for list of countries.

### Time coverage and updates

Years covered: 1981-2006.<sup>118</sup>

Updated annually (normally in August).

### Documentation

Detailed documentation of each variable is available in the coder manual (Cingranelli and Richards 2004), which can be downloaded from the website.

## **3.2.2 Accessibility**

### Access conditions and costs

Available free of charge. Registration required.

### Access procedures

The system is easy to use and allows users to individually specify the variables, countries and years that are to be included in the dataset. It is also possible to save downloads in your MyCIRI account for future use.

### Data formats

Excel and CSV.

## **3.2.3 Comparability and data quality**

The CIRI database was awarded the Dataset Award by the Comparative Politics section of the American Political Science Association in 2006, indicating that the dataset is a valuable source for human-rights statistics. Several positive aspects can be noted. The database has an extensive geographical and temporal coverage, it is updated regularly, and is well documented, and the component variables are publicly available for other scholars. Weaknesses of the dataset are potential problems concerning the validity of the indicators and variance truncation. All in all,

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<sup>118</sup> Time coverage is more limited for some countries, see Appendix C.3 for details.

however, the CIRI database appears to be one of the best sources available for quantitative data on human-rights practices. See Chapter 5 for a more detailed discussion of human-rights indicators.

### 3.2.4 Relevance to ESS users

The dataset is relevant to all ESS users who wish to incorporate measures of human-rights practices in their analyses.

## Sources

### Publications

Cingranelli, David L., and David L. Richards. 1999. "Respect for human rights after the end of the cold war". *Journal of Peace Research* 36 (5): 511-534.

Cingranelli, David L., and David L. Richards. 2004. *The Cingranelli-Richards (CIRI) Human Rights Database*. Coder manual, version 8.01.04.

<http://ciri.binghamton.edu/documentation.asp>

### Data download

CIRI Human Rights Dataset:

[http://ciri.binghamton.edu/myciri/my\\_ciri\\_login.asp](http://ciri.binghamton.edu/myciri/my_ciri_login.asp)

### Appendices

1. List of countries
2. List of variables

### Author of documentation

Data source documented by Rydland.

## 4. CivicActive

### 4.1 General information

#### Institution

CivicActive's European Election Database was established as a part of a European Commission's Sixth Framework Research Programme, concluded in 2006. The main objectives of the programme included identifying the determinants of active political participation on both the European and national levels. As part of the dissemination strategy of the CivicActive project, the Norwegian Social Science Data Services (NSD) established an online database of aggregated election statistics.<sup>119</sup>

The primary goal of the database is to facilitate comparative research on elections in Europe. Although its content is well adapted for combination with additional statistics, the database remains a source of election data only.

#### Database

European Election Database

#### Contact details and website

Norwegian Social Science Data Services

Email: [civicactive@nsd.uib.no](mailto:civicactive@nsd.uib.no)

Website: <http://extweb3.nsd.uib.no/civicactivecms/opencms/civicactive/en/>

## 4.2 European Election Database

### 4.2.1 Contents

#### Data types and sources

The database contains confirmed election data acquired from official sources.

#### Topics

As of March 2007, the database contains some 300 datasets, covering most national elections held in 30 European countries since 1990. Datasets are available for national elections of the following categories:

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<sup>119</sup> Note that the authors of this report are affiliated with NSD, but we do not believe this has biased our assessment of CivicActive's election database.

1. Parliamentary elections
2. European Parliament elections
3. Presidential elections, (in cases where two rounds are organised, results are available for both)
4. Referendums related to the European Union
5. Combined country files for all parliamentary elections and European parliamentary elections held since the 1990s (available for a number of countries)

For some countries data remain unavailable for certain types of elections due to plurality/majority electoral systems or mixed systems. This is the case for parliamentary elections in Britain and Lithuania.

The data material contains information on the number of votes per party/candidate, eligible voters, votes deposited, valid votes and invalid votes.

#### Geographical coverage

The database currently covers 30 European countries. See Appendix C.4 for a complete list.

Whenever feasible, data are presented according to the NUTS 3 level. For some countries, e.g. Austria and Poland, data are available upon request also on a lower level (LAU 1 or 2). On a few occasions data are only available at a higher level (NUTS 2) such as in the case of Belgium and Slovenia.

ESS countries not covered: Israel, Russia, Turkey, Ukraine and the United Kingdom.

#### Time coverage and updates

The database covers the period from 1990 to date and is continuously updated.

#### Documentation

The documentation of the datasets is accessed through the Abstract-link on each country specific page and from the hierarchical menu next to each table. The documentation covers original sources, study scope, methodological and processing information, as well as data files description. The CivicActive website also offers qualitative background information on political history, political parties, electoral system and the administrative division of each country.

### **4.2.2 Accessibility**

#### Access conditions and costs

Available free of charge. Registration required.

#### Access procedures

The database is easy and intuitive to use and is organised by country. Each country specific page contains an overview of the available datasets sorted by type of election, and a corresponding link to the datasets.

The data management solution used for the database offers a variety of graphics such as manipulative tables, bar charts, time-series graphs etc. These tools make it possible to manipulate data, alter the selection of data, create subsets of data and perform calculations, including correlations from the data. A drawback with the database is that it is not possible to select variables from different datasets or tables and download them in a single file; instead, users must download each table separately before merging them

#### Data formats

On-screen tables. Download available in Excel and PDF format. (SPSS files will be available for download shortly.)

### **4.2.3 Comparability and data quality**

The data published in the database are mainly collected from the official websites of national election commissions and statistical institutions. In some cases they are obtained directly from election authorities. This means that the quality and reliability of the data is generally very high. Original sources are listed in the documentation. Errors in original datasets are reported in the documentation.

The chief objective of the CivicActive database is to facilitate comparative research on elections in Europe across time and space. The accommodation of the data to the European Union's NUTS structure is done with this intention in mind. Users can choose to work with data on NUTS levels 1, 2 or 3, or on country level in order to compare domestic regions or regions across national borders. The inclusion of different types of elections in the database also allows for studies to compare and contrast participation across different types of elections. Furthermore, the correspondence between the aggregated election results and the NUTS structure facilitates studies that incorporate additional statistical indicators as most countries apply the NUTS system when gathering annual statistics (demography, labour market etc.).

#### 4.2.4 Relevance to ESS users

The CivicActive database is a good source of European national election data on a regional level. The aggregated datasets meet high standards both in terms of quality and comparability and should constitute an important source of electoral data to ESS users.

### Sources

#### Electronic resources

CivicActive project home page:

<http://www.ucd.ie/civictact/>

#### Data download

European Election Database:

<http://extweb3.nsd.uib.no/civictivecms/opencms/civictive/en/>

#### Appendix

1. List of countries

#### Author of documentation

Data source documented by Østensen.

## 5. Comparative Parties Dataset

### 5.1 General information

#### Research project

The Comparative Parties Dataset was compiled by Duane Swank and contains data on the strength of political parties by ideological group.

#### Dataset

Comparative Parties Dataset

#### Contact details and website

Duane Swank  
Marquette University  
Email: [duane.swank@marquette.edu](mailto:duane.swank@marquette.edu)  
Website: <http://www.marquette.edu/polisci/Swank.htm>

### 5.2 Comparative Parties Dataset

#### 5.2.1 Contents

##### Data types and sources

Election data.

##### Topics

The dataset contains 27 variables measuring the strength of political parties in elections, parliament and government. The political parties are classified by ideological groups, for the most part based on the classifications in Castles and Mair (1984). See Appendix C.5 for list of variables.

##### Geographical coverage

The dataset contains data for 21 countries, mainly long-established democracies. See Appendix C.5 for list of countries.

ESS countries not covered: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Iceland, Israel, Latvia, Luxembourg, Poland, Romania, Russia, Slovakia, Slovenia, Turkey and Ukraine.

##### Time coverage and updates

Years covered: 1950-2002.

Updates planned every one to two years.

#### Documentation

The variables and the classification schema are described in the codebook, which is available online.

### **5.2.2 Accessibility**

#### Access conditions and costs

Available free of charge

#### Access procedures

Predefined table.

#### Data formats

Excel.

### **5.2.3 Comparability and data quality**

Not examined.

### **5.2.4 Relevance to ESS users**

The dataset may be of relevance to ESS users who are interested in election data, though several sources provide similar statistics. The dataset does not include data for eastern European countries.

## **Sources**

#### Publications

Castles, Frances G., and Peter Mair. 1984. "Left-right political scales: some 'expert' judgements". *European Journal of Political Research* 12 (1): 147-157.

#### Data download

Comparative Parties Dataset:

<http://www.marquette.edu/polisci/Swank.htm>

Appendices

1. List of countries
2. List of variables

Author of documentation

Data source documented by Rydland.

## 6. Comparative Political Datasets

### 6.1 General information

#### Research projects

The Comparative Political Datasets (CPDS for short) are three separate datasets compiled by researchers at the University of Berne. The three datasets contain a collection of political and institutional data, but cover different countries and time periods. The dataset called CPDS I (Armingeon et al. 2006) covers the OECD countries for the period 1960-2004 and was assembled as part of the research projects *Die Handlungsspielräume des Nationalstaates* and *Critical Junctures: An International Comparison*. The second dataset, CPDS II (Armingeon and Careja 2004), covers 28 post-communist countries for the 1989-2006 period, and was compiled as part of the research project *Forms of Government: A Comparative Data Set for 28 Eastern Countries*. The third dataset, CPDS III (Armingeon et al. 2007), covers 35 OECD and/or EU member countries for the 1990-2004 period. The data in this dataset are mainly drawn from the other two, but it differs from them in some respects.

#### Datasets

1. Comparative Political Dataset I
2. Comparative Political Dataset II
3. Comparative Political Dataset III

#### Contact details and website

Institut für Politikwissenschaft

Universität Bern

Email: [info@ipw.unibe.ch](mailto:info@ipw.unibe.ch)

Website: <http://www.ipw.unibe.ch/>

### 6.2 Comparative Political Dataset I

#### 6.2.1 Contents

##### Data types and sources

Political variables based on expert coding and election data. Socio-economic data based on official registers, national accounts and surveys, compiled from international statistical organisations.

## Topics

The core of the dataset is composed of variables related to the political system and electoral rules. In addition, the dataset contains some socio-economic variables. The dataset covers many of the same topics as CPDS II, and a number of the variables are identical. However, in some cases variables measuring the same concept are operationalised differently in the two datasets, and some variables are included only in one of them.

The CPDS I contains 97 main variables organised in 14 groups (see Appendix C.6 for complete list):

1. *Governments*. Variables describing the party composition of government, changes in government and type of government (minority/majority, coalition/single party).
2. *Elections*. Date of election, voter turnout, various parties' share of votes and various parties' share of seats.
3. *Women in parliament*. Percentage of women in parliament.
4. *Party system*. Various indices measuring the degree of disproportionality in the electoral system and the effective number of parties (Rae, Laakso-Taagepera, Gallagher indices).
5. *Institutions*. Some of the variables are various indices taken from Lijphart (1999), measuring aspects of the electoral system, e.g. federalism, party system, executive-legislative relations and degree of judicial review. The remaining variables are based on other sources – many are taken from Huber et al. (2004) – and measure various institutional features, such as institutional constraints on central state government, degree of integrated economy, federalism, presidential/parliamentary system and use of referenda.
6. *Central bank independence*. Various indices measuring different aspects of central bank independence.
7. *Openness of the economy*. Index for financial openness, index of restrictions on payments and receipts of goods, and index of restrictions on payments and receipts of capital.
8. *Macroeconomic data*. Variables such as GDP growth, government debt, annual deficit, and imports and exports.
9. *Labour force data*. Total and civilian employment and unemployment, employment in various sectors, participation rate, standardised unemployment rate.
10. *Trade unions and industrial disputes*. Variables measuring various aspects of labour disputes (strikes and lockouts) and number of union members.
11. *Social expenditure and revenue data*. Variables such as social security transfers, public social expenditure and expenditure on health.

12. *Labour market policy*. Variables primarily measuring government expenditure on labour market policies.
13. *International Labour Organisation*. Number of ILO conventions ratified.
14. *Demographic data*. Population size, total and by age.

### Geographical coverage

The dataset covers 23 OECD countries. See Appendix C.6 for list of countries.

ESS countries not covered: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Israel, Latvia, Poland, Romania, Russia, Slovakia, Slovenia, Turkey and Ukraine.

### Time coverage and updates

The dataset provides annual data from 1960 to 2004. Some years are missing for a few countries, notably Mediterranean countries during the period they were ruled by non-democratic regimes. The dataset will normally be updated annually.

### Documentation

Generally speaking, the dataset is described in a fair amount of detail in the codebook, which is available for download from the website. However, the coding rules for variables reproduced from other sources are not specified in sufficient detail. Frequently the codebook does not specify how these variables are coded; it merely refers to the original source. This makes it unnecessarily time-consuming for users to find out how the variables are coded and what they measure. Furthermore, sometimes the original source does not provide any clear coding rules either. Many of the institutional variables are taken from the Comparative Welfare States Dataset (Huber et al. 2004), but this source says practically nothing about how variables such as federalism, presidentialism and electoral system are coded.

## **6.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined table.

### Data formats

Excel and SPSS.

### **6.2.3 Comparability and data quality**

The data quality appears to be generally good, though there are some instances of inaccurate data or debatable coding practices. See Chapter 5 for a general discussion of data on political institutions.

### **6.2.4 Relevance to ESS users**

The dataset provides relevant information on central political institutions and contains some widely used indicators, such as the Laakso-Taagepera and Rae indices. It should therefore be highly relevant to all ESS users who wish to incorporate measures of political institutions in their analyses. However, users should be aware of some instances of inaccurate data.

## **6.3 Comparative Political Dataset II**

### **6.3.1 Contents**

#### Data types and sources

Political variables based on expert coding and election data. Socio-economic data based on official registers, national accounts and surveys, compiled from international statistical organisations.

#### Topics

The core of the dataset is composed of variables related to the political system and electoral rules. In addition, the dataset contains some socio-economic variables. The dataset covers many of the same topics as CPDS I, and a number of the variables are identical. However, in some cases variables measuring the same concept are operationalised differently in the two datasets, and some variables are included only in one of them.

The CPDS II contains 46 main variables organised in eight groups (see Appendix C.6 for complete list):

1. *Elections*. Legislative: date of election, voter turnout, number of seats contested, electoral threshold, share of votes, share of seats. Presidential: mode of electing, term in office, date of elections, voter turnout, share of votes.
2. *Institutions*. Variables such as bicameral/unicameral parliament, federalism, electoral system, referenda.
3. *Women in parliament*. Percentage and number.
4. *Party system*. Laakso-Taagepera and Rae indices.
5. *Complexion of government*. Various government parties' share of parliamentary support.
6. *Democracy*. Year of independence or end of communist rule, various Freedom House variables, Transparency International's CPI, violent conflict.
7. *Labour relations*. Workers involved in labour disputes, working days lost due to labour disputes, unemployment rate.
8. *Economy*. No data.

### Geographical coverage

The dataset covers 28 post-communist countries. See Appendix C.6 for list of countries.

ESS countries not covered: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Time coverage and updates

The dataset provides annual data from 1989 to 2004. The dataset will normally be updated annually.

### Documentation

The dataset is described in the codebook, which is available for download from the website. Many of the variables are described in detail, but in some cases users must refer to other publications to find out how variables are coded.

## **6.3.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined tables. The dataset is organised in 12 separate files.

### Data formats

Excel.

### **6.3.3 Comparability and data quality**

The data quality appears to be generally good, though there are some instances of inaccurate data or debatable coding practices (see Chapter 5). Another problem concerns the categories of some variables. In some cases, the categories are not mutually exclusive, leading to countries being coded in a rather peculiar and seemingly haphazard way. This problem stems mainly from the practice of including “communist constitution or undemocratic rule” as a separate category on most variables. On the presidentialism variable, for example, both Belarus and Azerbaijan are coded as “communist or undemocratic” during the first years following independence, and then, from the mid-1990s onwards, as semi-presidential and presidential, respectively. Yet both countries have remained undemocratic since independence, and the coding of the variable therefore seems somewhat arbitrary.

### **6.3.4 Relevance to ESS users**

The dataset provides relevant information on central political institutions and contains some widely used indicators, such as the Laakso-Taagepera and Rae indices. It should therefore be highly relevant to all ESS users who wish to incorporate measures of political institutions in their analyses. However, users should be aware of some instances of inaccurate data.

## **6.4 Comparative Political Dataset III**

### **6.4.1 Contents**

#### Data types and sources

Political variables based on expert coding and election data. Fiscal and social policy variables based on government statistics (national accounts).

### Topics

The core of the dataset is composed of variables related to the political system and electoral rules. The dataset consists of many of the same variables as CPDS I and CPDS II, but the operationalisation is different in some cases.

The CPDS III contains 33 main variables organised in four groups (see Appendix C.6 for complete list):

1. *Governments*. Variables describing the party composition of government, changes in government and type of government (minority/majority, coalition/single party).
2. *Elections*. Date of election, voter turnout, various parties' share of votes and various parties' share of seats, women in parliament.
3. *Fiscal and social policy*. Various measures, e.g. fiscal centralisation and tax revenue of social security funds as percentage of GDP.
4. *Institutions*. Measures of various institutional features, such as federalism, presidential/parliamentary system and referenda.

### Geographical coverage

The dataset covers 35 OECD and EU countries. See Appendix C.6 for list of countries.

ESS countries not covered: Israel, Russia, Turkey and Ukraine.

### Time coverage and updates

The dataset provides annual data from 1990 to 2004. Frequency of updates not stated.

### Documentation

Generally speaking, the dataset is described in a fair amount of detail in the codebook, which is available for download from the website. However, the coding rules for variables reproduced from other sources are not specified in sufficient detail. Frequently the codebook does not specify how these variables are coded; it merely refers to the original source. This makes it unnecessarily time-consuming for users to find out how the variables are coded and what they measure.

## **6.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined table.

### Data formats

Excel and SPSS.

## **6.2.3 Comparability and data quality**

Not examined. See Chapter 5 for a general discussion of data on political institutions.

## **6.2.4 Relevance to ESS users**

The dataset provides relevant information on central political. It should therefore be highly relevant to all ESS users who wish to incorporate measures of political institutions in their analyses.

## **Sources**

### Publications

Armingeon, Klaus, and Romana Careja. 2004. *Comparative Data Set for 28 Post-Communist Countries, 1989-2004*. Institute of Political Science, University of Berne.

Armingeon, Klaus, Romana Careja, Marlène Gerber and Philipp Leimgruber. 2007. *Comparative Political Data Set III 1990-2004*. Institute of Political Science, University of Berne.

Armingeon, Klaus, Philipp Leimgruber, Michelle Beyeler and Sarah Menegale. *Comparative Political Data Set 1960-2004*. Institute of Political Science, University of Berne.

Huber, Evelyne, Charles Ragin, John D. Stephens, David Brady and Jason Beckfield. 2004. *Comparative Welfare States Data Set*, Northwestern University, University of North Carolina, Duke University and Indiana University.

<http://www.lisproject.org/publications/welfaredata/welfareaccess.htm> (1 May 2007).

Lijphart, Arend. 1999. *Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries*. New Haven and London: Yale University Press.

### Data download

Comparative Political Datasets:

[http://www.ipw.unibe.ch/content/team/klaus\\_armingeon/comparative\\_political\\_data\\_sets/index\\_ger.html](http://www.ipw.unibe.ch/content/team/klaus_armingeon/comparative_political_data_sets/index_ger.html)

Appendices

1. List of countries
2. CPDS I: List of variables
3. CPDS II: List of variables
4. CPDS III: List of variables

Author of documentation

Data source documented by Arnesen and Rydland.

## 7. Comparative Welfare Entitlements Dataset

### 7.1 General information

#### Research project

This Comparative Welfare Entitlements Dataset was compiled by Lyle Scruggs (University of Connecticut), and consists of six datasets on institutional features of social insurance programmes in 18 countries spanning much of the post-war period. Its purpose is to provide an essential complement to programme spending data that is available from international sources like the OECD's Social Expenditure Database. The dataset has been used by Scruggs in several studies of welfare state issues.

#### Dataset

Comparative Welfare Entitlement Dataset

#### Contact details and website

Lyle Scruggs  
Department of Political Science  
University of Connecticut  
Email: [lyle.scruggs@uconn.edu](mailto:lyle.scruggs@uconn.edu)  
Website: <http://sp.uconn.edu/~scruggs/wp.htm>

### 7.2 Comparative Welfare Entitlement Dataset

#### 7.2.1 Contents

##### Data types and sources

Expert-coded variables and data from official registers, national accounts and surveys. The sources are mainly international organisations, such as the OECD, and national registers.

##### Topics

The six separate datasets all provide information about different institutional features of national social insurance programmes, covered in 52 common variables in addition to a few country-specific variables. See Appendix C.7 for list of variables.

### Geographical coverage

The dataset covers 18 OECD countries, of which 13 are from (western) Europe. See Appendix C.7 for list of countries.

ESS countries not covered: Bulgaria, Cyprus, Czech Republic, Estonia, Greece, Hungary, Iceland, Israel, Latvia, Luxembourg, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Turkey and Ukraine.

### Time coverage and updates

Most variables contain annual data for the years 1961-2002, but first data for some variables are earlier or later than 1961. Updates were originally planned every three years, but are contingent on funding.

### Documentation

A common codebook for all six datasets is provided, with explanations of how the variables were constructed and with information on the sources of the data. Further details about how particular variables are coded are available in the replacement rate table notes, and insurance coverage notes, and in the specific country notes sections of the codebook.

## **7.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined table.

### Data formats

Excel and Stata.

## **7.2.3 Comparability and data quality**

Not examined.

#### **7.2.4 Relevance to ESS users**

The dataset collection was constructed in order to complement programme spending data which are available from international sources like the OECD's Social Expenditure Database, and it should therefore be relevant to ESS users interested in that topic.

#### **Sources**

##### Data download

Comparative Welfare Entitlements Dataset:

<http://sp.uconn.edu/~scruggs/wp.htm>

##### Appendices

1. List of countries
2. List of variables

##### Author of documentation

Data source documented by Arnesen.

## 8. Comparative Welfare States Dataset

### 8.1 General information

#### Institution

The Comparative Welfare States Dataset was compiled as part of the project the Welfare State in Comparative Perspective, directed by Evelyne Huber, Charles Ragin and John Stephens. The focus of the project was to collect a wide range of indicators of welfare state development, its causes and its outcomes.

#### Dataset

Comparative Welfare States Dataset

#### Contact details and website

John D. Stephens

Department of Political Science

University of North Carolina

Email: [jdsteph@unc.edu](mailto:jdsteph@unc.edu)

Website: <http://www.lisproject.org/publications/welfaredata/welfareaccess.htm>

## 8.2 Comparative Welfare States Dataset

### 8.2.1 Contents

#### Data types and sources

Political variables are based on expert coding. Socioeconomic data based on official registers, national accounts and surveys, gathered from international organisations such as the OECD and the ILO.

#### Topics

The dataset is divided into seven major topics (see Appendix C.8 for list of variables):

1. Wage and salary data
2. Social spending, revenue, and welfare state institutional data
3. Labour force and labour institutions data
4. Demographic data
5. Macroeconomic data: Penn World Table
6. Macroeconomic data: Others

## 7. Political variables

### Geographical coverage

The dataset covers 18 high-income countries (see Appendix C.8 for list of countries).

ESS countries not covered: Bulgaria, Cyprus, Czech Republic, Estonia, Greece, Hungary, Iceland, Israel, Latvia, Luxembourg, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Turkey and Ukraine.

### Time coverage and updates

Data exist from 1960-2003. The producers of the dataset intend to update it every three or four years.

### Documentation

A codebook is available for download together with the dataset. Some of the political variables are not described in sufficient detail to allow independent researchers to replicate the data without consulting other publications.

## **8.2.2 Accessibility**

### Access conditions and costs

Available free of charge. Commercial use of the data is prohibited.

### Access procedures

Predefined table.

### Data formats

Excel.

## **8.2.3 Comparability and data quality**

Not examined in detail. See Chapter 5 for a general discussion of measures of political institutions.

#### **8.2.4 Relevance to ESS users**

Several users may find parts of the dataset relevant, especially the variables considering welfare state data and political institutions.

#### **Sources**

##### Data download

Comparative Welfare States Dataset:

<http://www.lisproject.org/publications/welfaredata/welfareaccess.htm>

##### Appendices

1. List of countries
2. List of variables

##### Author of documentation

Data source documented by Arnesen.

## 9. Constituency-Level Elections Dataset

### 9.1 General information

#### Research project

The Constituency-Level Elections Dataset was compiled by Dawn Brancati as part of her dissertation research. The dataset includes election results at the constituency or district level.

#### Dataset

Constituency-Level Elections Dataset

#### Contact details and website

Dawn M. Brancati

Harvard University

Email: [dbrancati@iq.harvard.edu](mailto:dbrancati@iq.harvard.edu)

Website: <http://www.people.fas.harvard.edu/~brancati/CLE.htm>

### 9.2 Constituency-Level Elections Dataset

#### 9.2.1 Contents

##### Data types and sources

Election data. The sources are primarily official election results from government institutions. In countries where such sources are not available, the data are collected from national newspapers.

##### Topic

The election results include vote and seat data for all parties that participate in elections covered by the dataset. The dataset include legislative elections for lower and upper houses at the national level. It also covers some sub-national elections.

##### Geographical coverage

The dataset currently (August 2007) contains data for 25 countries (16 European). A planned update of the dataset in 2008 will increase the number of countries to 60 (33 European). See Appendix C.9 for list of countries.

- ESS countries not covered: Austria, Bulgaria, Denmark and the United Kingdom.

- ESS countries partially covered: Belgium, Cyprus, Finland, France, Iceland, Ireland, Luxembourg, Russia, Slovakia, Switzerland and Ukraine.<sup>120</sup>

#### Time coverage and updates

The dataset covers the years 1945-2006, but the time coverage varies greatly across countries. In some cases, the data cover a period of less than 10 years; in other cases, most of the elections since 1945 are included. See Appendix C.9 for information on the years covered for each country. The dataset will be updated, but future updates will not necessarily include data for the most recent elections in the countries covered by the dataset. For example, the most recent data for Ireland in the 2007-release are from 1997.

#### Documentation

There is a separate codebook for each country, providing original and English names of the parties, as well as comments on peculiarities in the data.

### **9.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined tables. Data and codebooks must be downloaded in separate files for each country.

#### Data formats

Stata.

### **9.2.3 Comparability and data quality**

The data are mainly gathered from official registries, and are therefore believed to be of good quality. The data in each file are organised in a manner that makes it possible to aggregate results from the constituency level to regional or national levels.

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<sup>120</sup> Coverage incomplete also for some ESS countries not listed under partially covered.

#### **9.2.4 Relevance to ESS users**

The dataset is of relevance to ESS users who are interested in election data at the constituency level, but a potential problem is that a number of European countries are not covered. Another problem is that the time coverage of the data varies greatly across countries.

### **Sources**

#### Data download

Constituency-Level Elections Dataset:

<http://www.people.fas.harvard.edu/~brancati/ElectoralData.htm>

#### Appendix

1. List of countries

#### Author of documentation

Data source documented by Arnesen.

## 10. Cross-National Time-Series Data Archive

### 10.1 General information

#### Institution

The Cross-National Time-Series Data Archive (CNTS) was initiated by Arthur S. Banks in 1968 with the aim of assembling, in machine readable, longitudinal format, certain of the aggregate data resources of *The Statesman's Yearbook*. The CNTS offers a listing of international and national country-data facts. The dataset contains statistical information on a range of countries, with data entries ranging from 1815 to the present.

#### Dataset

Cross-National Time-Series Data Archive (CNTS)

#### Contact details and website

Databanks International

Email: [databanks@sitehosting.net](mailto:databanks@sitehosting.net)

Website: <http://www.databanks.sitehosting.net/>

## 10.2 Cross-National Time-Series Data Archive

### 10.2.1 Contents

#### Data types and sources

Expert-coded variables and information from official registers and national accounts. The data are based on various sources; the main source for the early data is *The Statesman's Yearbook*, while more recent data are gathered from a number of international sources.

#### Topics

The dataset contains 169 variables, which are organised under 22 categories:

1. Area and population
2. Urbanisation
3. Revenue and expenditures
4. Trade data
5. Energy production and consumption
6. Industrial labour and military size

7. Railroad data
8. Highway vehicles
9. Telegraph and telephone
10. Mail flow data
11. Media
12. School enrolment
13. Literacy
14. Physician data
15. Income and currency
16. Domestic conflict
17. Election data
18. Legislative process
19. Political variables
20. International status indicators
21. Industrial production
22. Percent annual change

### Geographical coverage

The dataset covers 250 present and historical countries. All ESS countries are covered by the source. See Appendix C.10 for list of countries.

### Time coverage and updates

First data available go as far back as 1815 for some variables, and most variables have an annual frequency and a time span of at least 50 years. The dataset is updated annually.

### Documentation

A codebook for the dataset will be sent to the user after purchase of the dataset. Definitions of most variables are available online.

## **10.2.2 Accessibility**

### Access conditions and costs

The dataset must be purchased. The cost varies from \$550 for an academic licence for a single user, up to \$5.000 for unlimited users from multiple locations.

Access procedures

Predefined table.

Data formats

Excel.

**10.3 Comparability and data quality**

Not examined.

**10.4 Relevance to ESS users**

The long time span of the variables is of great value to ESS users. The coding used by the makers of the CNTS dataset has become a standard of reference for many scholars. A drawback with the dataset is the costs associated with obtaining it.

**Sources**

Appendices

1. List of countries
2. List of variables

Author of documentation

Data source documented by Arnesen.

## 11. Database of Political Institutions

### 11.1 General information

#### Research project

The Database of Political Institutions (DPI) was compiled by the Development Research Group of the World Bank for research in comparative political economy. Beck et al. (2001) present the database and demonstrate its utility by examining the impact of divided government on public debt and the impact of presidentialism vs. parliamentarism on democratic consolidation.

#### Databases

Database of Political Institutions (DPI)

#### Contact details and website

Email: [research@worldbank.org](mailto:research@worldbank.org)

Website: <http://go.worldbank.org/2EAGGLRZ40>

### 11.2 Database of Political Institutions

#### 11.2.1 Contents

##### Data types and sources

Election data and expert coding. The coding is primarily based on two sources: the *Political Handbook of the World*, edited by Arthur Banks, and the *Europa Year Book* (Beck et al. 2001: 171).

##### Topics

The Database of Political Institutions (DPI) contains 106 variables, mainly measuring aspects of the political system and electoral rules. The variables are organised in five groups (see Appendix C.11 for a complete list):

1. *Chief executive variables.* E.g., presidential or parliamentary system, years in office, the chief executive's party affiliation.
2. *Party variables in the legislature.* Variables describing various aspects of the legislature and parties in the legislature, e.g. number of seats held by various parties, whether one party holds an absolute majority and date of elections.
3. *Electoral rules.* E.g., plurality or proportional electoral systems, threshold for representation, whether or not elections are affected by fraud.

4. *Stability and checks and balances*. E.g., age of present regime, checks and balances, polarisation.
5. *Federalism*. E.g., whether there are autonomous regions and whether municipal governments are locally elected.

#### Geographical coverage

The DPI covers all independent countries with populations above 100.000 (Beck et al. 2000: 36) – 178 countries in the latest version. All ESS countries are covered by the source. See Appendix C.11 for list of countries.

#### Time coverage and updates

Years covered: 1975-2004.

Frequency of updates not stated.

#### Documentation

The coding rules and sources are described in a fair amount of detail in the codebook, which is available online as a separate document (Keefer 2005). An earlier version of the DPI is described in Beck et al. (2000, 2001). See also Zoco (2004) for an independent review of the database.

### **11.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined table. The entire database can be downloaded in a single file, organised in country-year format. An earlier version of the database is also available for download.

#### Data formats

Excel.

### **11.2.3 Comparability and data quality**

The DPI is a useful source of quantitative data on political institutions. However, users should examine the variables before using them in quantitative analysis, as the database contains some

important weaknesses. In a review of the DPI, Zoco (2004) finds examples of inaccurate data collection and some coding and measurement problems. See Chapter 5 of this report for a more detailed discussion of measurement problems in the DPI and other datasets with quantitative data on political institutions.

#### 11.2.4 Relevance to ESS users

There are relatively few databases that provide quantitative data on political institutions, and the DPI therefore fills an important gap. The study of political institutions is highly relevant to many ESS users, and many should find the DPI useful. However, users should be aware that the database suffers from some measurement problems, and that the accuracy of several variables is debatable.

### Sources

#### Publications

Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer and Patrick Walsh. 2000. "New tools and new tests in comparative political economy: the Database of Political Institutions". Policy Research Working Paper, No. 2283, Development Research Group, World Bank.

Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer and Patrick Walsh. 2001. "New tools and new tests in comparative political economy: the Database of Political Institutions". *World Bank Economic Review* 15 (September): 165-176.

Keefer, Philip. 2005. *DPI2004. Database of Political Institutions: Changes and Variable Definitions*. Development Research Group, World Bank.

Zoco, Edurne. 2004. "A review of the World Bank Data Base on Political Institutions". *APSA-CP Newsletter* 15 (Summer): 32-34.

#### Data download

Database of Political Institutions:  
<http://go.worldbank.org/2EAGGLRZ40>

#### Appendices

1. List of countries
2. List of variables

#### Author of documentation

Data source documented by Rydland.

## 12. Democratic Electoral Systems Around the World

### 12.1 General information

#### Research project

The Democratic Electoral Systems Around the World (DESAW) dataset was compiled by Matt Golder, and describes some of the more important electoral institutions used in legislative and presidential elections around the world in a consistent and comparative manner.

#### Database

Democratic Electoral Systems Around the World (DESAW)

#### Contact details and website

Matt Golder  
Department of Political Science  
Florida State University  
Email: [mgolder@fsu.edu](mailto:mgolder@fsu.edu)  
Website: <http://homepages.nyu.edu/~mrg217/elections.html>

### 12.2 Democratic Electoral Systems Around the World

#### 12.2.1 Contents

##### Data types and sources

Expert coding based on a number of sources, including national registers and academic research.

##### Topics

The dataset covers the electoral institutions used in all of the democratic elections in the world, in total 867 legislative and 294 presidential elections (Golder 2005: 103). It covers a wide range of institutional features including regime type, the electoral formula, the average and median district magnitude, the number of constituencies and upper tier seats, assembly size and more.

### Geographical coverage

The dataset covers 199 countries. All ESS countries are covered by the source. See Appendix C.12 for list of countries.<sup>121</sup>

### Time coverage and updates

The time span is from 1946 (or from independence) until 2000. The author states that the dataset is a work in progress, and that new information about recent elections will be updated (Golder 2004).

### Documentation

The dataset is described in Golder (2005) and a comprehensive codebook (Golder 2004), which is available online.

## **12.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined tables. The dataset is available in two versions: one in which each election is the basic unit, and one organised in country-year format. In the former version, data for presidential and legislative elections are organised in separate files; in the latter, data for both types of elections are published in the same file.

### Data formats

Excel.

## **12.2.3 Comparability and data quality**

The aim of the DESAW database was to improve data availability for electoral institutions in order to facilitate empirical research across time periods and regions, in a consistent and

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<sup>121</sup> The dataset consists of three different tables, one organised in country-year format, one where each legislative election is a unit and one where each presidential election is a unit. The country-year file covers more countries, but for some countries data are missing on many of the central variables. The tables with data on legislative and presidential elections cover 125 countries.

comparative manner (Golder 2004). The author thoroughly identifies how the data was coded, and follows leading scholars' definitions on central concepts such as political regimes.

#### **12.2.4 Relevance to ESS users**

The topic is clearly of relevance to ESS users. The only issue is whether data will be updated to cover recent and future elections.

### **Sources**

#### Publications

Golder, Matt. 2004. "Democratic electoral systems around the world, 1946–2000". Codebook. New York University.

<http://homepages.nyu.edu/~mrg217/elections.html> (15 March 2007).

Golder, Matt. 2005. "Democratic electoral systems around the world, 1946–2000." *Electoral Studies* 24 (1): 103-121.

#### Data download

Democratic Electoral Systems Around the World:

<http://homepages.nyu.edu/~mrg217/elections.html>

#### Appendices

1. List of countries
2. List of variables

#### Author of documentation

Data source documented by Arnesen.

## 13. Election Resources on the Internet

### 13.1 General information

#### Research project

Election Resources on the Internet is a website established and maintained by Manuel Álvarez-Rivera. The website contains election data for a number of countries, as well as links to other electronic resources on elections. The website is available in both English and Spanish.

#### Dataset

Election Resources on the Internet

#### Contact details and website

Manuel Álvarez-Rivera

Email: [malvarez@electionresources.org](mailto:malvarez@electionresources.org)

Website: <http://www.electionresources.org/>

### 13.2 Election Resources on the Internet

#### 13.2.1 Contents

##### Data types and sources

Election data, mainly compiled from various official sources: government institutions, national parliaments and national statistical offices.

##### Topics

Data on registered voters, turnout, invalid votes, valid votes, and votes and seats distribution by political parties.

##### Geographical coverage

The database contains data for 30 countries, and links to sources with data for many other countries and territories. Regional data are also available in most cases. See Appendix C.13 for list of countries.

ESS countries not covered: Bulgaria, Cyprus, Czech Republic, Hungary, Israel, Latvia, Romania, Russia, Slovakia, Slovenia and Ukraine.<sup>122</sup>

#### Time coverage and updates

The time coverage varies substantially across countries. A few countries are covered from 1945 onwards, and all countries are covered from 2001. See Appendix C.13 for details on time coverage. The database is continuously updated.

#### Documentation

Information on data sources, electoral system and political background is provided on the website.

### **13.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined tables organised by country and election.

#### Data formats

On-screen tables and maps.

### **13.2.3 Comparability and data quality**

Not examined.

### **13.2.4 Relevance to ESS users**

The database does not cover all ESS countries, but can be used as a valuable supplement to other sources of election data. The fact that the database also provides regional data makes it particularly useful, though the data have not been standardised according to the NUTS system.

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<sup>122</sup> The database provides links to other electronic resources with election data for these countries.

## Sources

### Data download

Election Resources on the Internet:  
<http://www.electionresources.org/>

### Appendix

1. List of countries

### Author of documentation

Data source documented by Rydland.

## 14. Environmental Performance Measurement Project

### 14.1 General information

#### Research project

The Environmental Performance Measurement (EPM) Project aims to provide policymakers with data on environmental sustainability and performance. The project produces two composite indices: the Environmental Sustainability Index (ESI) and the Environmental Performance Index (EPI). The project is an initiative of the Yale Center for Environmental Law and Policy (YCELP) and the Center for International Earth Science Information Network (CIESIN) of Columbia University, in collaboration with the World Economic Forum and the Joint Research Centre of the European Commission.

#### Datasets

Environmental Sustainability Index (ESI)

Environmental Performance Index (EPI)

#### Contact details and website

Yale Center for Environmental Law and Policy

Email: [ycelp@yale.edu](mailto:ycelp@yale.edu)

Website: <http://www.yale.edu/envirocenter/epm.htm>

Center for International Earth Science Information Network

Email: [ciesin.info@ciesin.org](mailto:ciesin.info@ciesin.org)

Website: <http://sedac.ciesin.columbia.edu/index.html>

## 14.2 Environmental Sustainability Index

### 14.2.1 Contents

#### Data types and sources

Composite index based on various indicators, e.g. data from national accounts, administrative records and official registers, expert surveys, and data on pollution. The data source is usually international organisations such as the OECD and specialised agencies of the United Nations, but some data are also collected from non-governmental organisations and government institutions.

### Topics

The Environmental Sustainability Index (ESI) ranks countries on elements of environmental sustainability covering natural resource endowments, past and present pollution levels, environmental management efforts, contributions to protection of the global commons, and a society's capacity to improve its environmental performance over time.

The 2005 edition of the dataset contains 103 variables: one composite index (the ESI), five component indicators (environmental systems, reducing environmental stress, reducing human vulnerability, social and institutional capacity, and global stewardship), 21 indicators (used to calculate the component indicators), and 76 raw-data variables (used to calculate the 21 indicators). See Appendix C.14 for a complete list.

### Geographical coverage

The 2005 edition covers 146 countries and territories. See Appendix C.14 for a complete list.

ESS countries not covered: Cyprus and Luxembourg.

### Time coverage and updates

Years covered: 2001, 2002, 2005.

The next ESI update is planned for 2008.

### Documentation

On the website there is extensive documentation of how the ESI was constructed, including detailed descriptions of the statistical techniques and methods used to calculate the index, variable profiles, comparison with other sustainability indicators, and criticisms and responses.

## **14.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined table.

### Data formats

Excel.

### 14.2.3 Comparability and data quality

Not examined, but see Jha and Bhanu Murthy (2003) for an assessment of the 2002 edition of the index.<sup>123</sup>

### 14.2.4 Relevance to ESS users

There are relatively few quantitative measures of environmental sustainability, and the ESI therefore fills an important gap. The index should be of interest to ESS users focusing on environmental issues. See also Parris and Kates (2003) for an overview of sustainability indicators.

## 14.3 Environmental Performance Index

### 14.3.1 Contents

#### Data types and sources

Composite index based on various indicators, e.g. data from national accounts, administrative records and official registers, and data on pollution. The data source is in most cases specialised agencies of the United Nations.

#### Topics

The Environmental Performance Index (EPI) identifies targets for environmental performance and measures how close each country comes to these goals. It ranks countries on indicators tracked in six established policy categories.

The dataset contains 42 variables: one composite index (the EPI), six policy category indicators (environmental health, air quality, water resources, biodiversity and habitat, productive natural resources, and sustainable energy), three ancillary variables, and 16 indicators (both standardised and raw versions). See Appendix C.14 for complete list.

#### Geographical coverage

The dataset covers 133 countries and territories. See Appendix C.14 for a complete list.

ESS countries not covered: Estonia, Latvia and Luxembourg.

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<sup>123</sup> See also The Economist: “Green and growing”, 27 January 2001, for a discussion of the 2001 edition of the index.

Time coverage and updates

Year covered: 2006.

Frequency of updates not stated.

Documentation

On the website there is extensive documentation of how the EPI was constructed, including detailed descriptions of the statistical techniques and methods used to calculate the index, sensitivity analysis, and variable profiles.

**14.3.2 Accessibility**

Access conditions and costs

Available free of charge.

Access procedures

Predefined table.

Data formats

Excel.

**14.3.3 Comparability and data quality**

Not examined.

**14.3.4 Relevance to ESS users**

There are relatively few quantitative measures of environmental sustainability, and the EPI therefore fills an important gap. The index should be of interest to ESS users focusing on environmental issues. See also Parris and Kates (2003) for an overview of sustainability indicators.

## Sources

### Publications

Jha, Raghendra, and K.V. Bhanu Murthy. 2003. "A critique of the environmental sustainability index". Departmental Working Papers 2003-08, Australian National University, Economics RSPAS. <http://ideas.repec.org/p/pas/papers/2003-08.html> (26 November 2007).

Parris, Thomas M., and Robert W. Kates. 2003. "Characterizing and measuring sustainable development". *Annual Review of Environment and Resources* 28: 559-586.

### Data download

Environmental Sustainability Index:

Yale: <http://www.yale.edu/esi/>

Columbia: <http://sedac.ciesin.columbia.edu/es/esi/>

Environmental Performance Index:

Yale: <http://www.yale.edu/epi/>

Columbia: <http://sedac.ciesin.columbia.edu/es/epi/>

### Appendices

1. ESI: List of countries
2. ESI: List of variables
3. EPI: List of countries
4. EPI: List of variables

### Author of documentation

Data source documented by Rydland and Arnesen.

## 15. Eurostat

### 15.1 General information

#### Institution

Eurostat is the Statistical Office of the European Communities, and is charged with producing statistics for the European Union (EU) and promoting harmonisation of statistical methods and standards across the member states. Eurostat publishes statistical data and analyses on a wide range of topics, both in printed publications and on the internet.

The forerunner of Eurostat, the statistical service of the European Coal and Steel Community, was established in late 1952. In 1958 the statistical service of the European Communities was set up, and the year after the institution took the name of the Statistical Office of the European Communities (SOEC). This is still the official name of the institution; the better-known name of Eurostat dates only from 1973 (De Michelis and Chantraine 2003: 14, 23).

#### Databases

All data can be accessed through the Dissemination Database, previously called the New Cronos Database. The Dissemination Database contains data from several databases, such as the External Trade Database and the Regio Database.

#### Contact details and website

Eurostat

Contact details available from Eurostat website.

Website: <http://epp.eurostat.ec.europa.eu/>

### 15.2 Dissemination Database

#### 15.2.1 Contents

##### Data types and sources

Eurostat publishes a wide variety of statistical data. Most of the data come from official registers, administrative records, national accounts and censuses. Some statistics are also based on surveys, such as national health surveys and labour force surveys.

## Topics

The Dissemination Database contains nearly 5.500 tables and datasets organised in ten broad categories. Many of the tables appear in more than one of the categories, so the number of separate tables is somewhat smaller. Nonetheless, the database contains an enormous quantity of statistical data.

An overview of available data can be found in *Statistical References*, a quarterly newsletter published by Eurostat detailing their products and services (Eurostat 2006a). A complete list of available tables and variables is provided in Appendix C.15. The database covers the following ten topics and subtopics:

1. Key indicators on EU policy (predefined tables)
  - a. Structural indicators
  - b. Short-term indicators
  - c. Long-term indicators
  - d. Sustainable development indicators
2. General and regional statistics
  - a. Euroindicators database
  - b. Regions
  - c. Urban audit
  - d. Non-EU countries
3. Economy and finance
  - a. Main economic indicators
  - b. National accounts (incl. GDP)
  - c. Government statistics
  - d. Financial accounts
  - e. Exchange rates
  - f. Interest rates
  - g. Monetary and other financial statistics
  - h. Prices
  - i. Balance of payments
4. Population and social conditions
  - a. Population
  - b. Health
  - c. Education and training
  - d. Labour market

- e. Living conditions and welfare
- f. Tourism
- 5. Industry, trade and services
  - a. Horizontal view
  - b. Information society statistics
  - c. Industry and construction
  - d. Distributive trades
  - e. Services
- 6. Agriculture and fisheries
  - a. Agriculture
  - b. Forestry
  - c. Fisheries
  - d. Food
- 7. External trade
- 8. Transport
- 9. Environment and energy
  - a. Environment
  - b. Energy
- 10. Science and technology

### Geographical coverage

The geographical coverage varies by topic and over time. The statistical collections generally cover all EU member states. In many cases longer time-series are only available for the 15 countries that were members prior to the enlargement of the union in 2004.

Many of the data collections also cover additional European countries, primarily candidate countries and EFTA member states, but also countries in the western Balkans and the former Soviet Union. In some cases non-European countries are also included, such as the United States and Japan and participants in the MedStat programme (North African and Middle Eastern countries). Data for countries in the western Balkans, the former Soviet Union and the Middle East and North Africa are usually stored in separate folders and not included in the general collections. See Appendix C.15 for a list of countries covered by Eurostat's online database.

As the only major international statistics agency, Eurostat also publishes a wide range of data at a regional level. Eurostat's Regio Database contains data for EU member states and some

candidate countries and EFTA member states. The data are stored at the (at any time) latest version of the NUTS system (the official regional breakdown for all EU countries), mainly at level 2, though some collections also contain data at level 3. In some cases, data are available only at level 1.

- ESS countries not covered, regional level: Israel, Russia, Turkey and Ukraine.
- ESS countries partially covered, regional level: Iceland and Switzerland.<sup>124</sup>
- ESS countries partially covered, country level: Israel, Russia and Ukraine.<sup>125</sup>

### Time coverage and updates

The time coverage varies substantially by variable and across countries. Some series are available from the early 1900s, but most variables have a much shorter time span. Time-series for many key statistics are available from the 1960s or 70s, while the majority of variables cover the period from the 1990s onwards. Some variables in the Regio Database cover the period from 1975 onwards.

The database is updated continuously. See Appendix C.15 for more information about the time coverage of various collections.

### Documentation

Documentation is generally fairly detailed and easily accessible. Explanatory texts to each theme or table can be accessed both through links in the database and through a separate website – the Special Data Dissemination Standard (SDDS) – which gives links to metadata for all themes. Metadata can also be accessed through RAMON, Eurostat’s metadata server (links provided below).

For the structural indicators, Eurostat provides quality profiles, which are user-oriented summaries of the main quality features of the indicators. The quality profiles are published on Eurostat’s website (link provided below).

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<sup>124</sup> The coverage of Eurostat’s Regio Database varies significantly, depending on the variable. We have examined the coverage of three variables: population at 1 January by sex and age from 1990 onwards; gross domestic product (GDP) at current market prices at NUTS level 2; and unemployment rates by sex and age, at NUTS levels 1, 2 and 3. Countries with no data on any variable are listed as not covered, countries with data on only one or two variables are listed as partially covered.

<sup>125</sup> The coverage at country level varies significantly, depending on the variable. We have examined the coverage of three variables: population by sex and age on 1 January of each year; GDP and main components, current prices; and harmonised unemployment rates, yearly averages. Data are not available for Israel, Russia and Ukraine on these variables in Eurostat’s general collections (population data are available for Ukraine). However, data for these countries are available in a separate folder for non-EU countries. The data in this folder are generally less detailed than the other statistical collections in the Dissemination Database.

More information about general methodology, specific indicators and availability of data can be found in a wide range of printed publications, many of which are available online. Publications that may be particularly useful are the *Statistical References, Mini-guide: Eurostat Publications and Databases, European Regional and Urban Statistics: Reference Guide, Europe in Figures: Eurostat Yearbook* and *Regions: Statistical Yearbook*. A link to a list of publications is provided below.

### 15.2.2 Accessibility

#### Access conditions and costs

The Dissemination Database can be accessed online, free of charge. Provided that the source is acknowledged, it may be reproduced under the conditions specified in the general copyright notice.<sup>126</sup>

#### Access procedures

The database is fairly straightforward and easy to use. The database is organised hierarchically, and you find variables, datasets and predefined tables by browsing through the data navigation tree. It is not necessary to register to log on to the database, but by registering you get access to enhanced functionalities. A drawback is that it is only possible to find data by browsing; there is no search function.

Some datasets are only available as predefined tables, but in most cases it is possible to create subsets of the data by specifying various dimensions, e.g. geographical units, time period and indicators. The functions available depend on which tool you use. Registered users can normally choose between four different tools to view and download the data; the most advanced functions are available through EVA (Eurostat's Visual Application).

A major drawback is that the database is very cumbersome to use for those who wish to create a dataset with variables from several different tables. It is not possible to select variables from different datasets or tables and download them in a single file; instead, users must download each table separately before merging them.

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<sup>126</sup> Commercial redistribution is permitted, subject to the conclusion of a licence agreement with the Publications Office. This licence entitles the contractor to distribute to third parties, on the conditions described in the licence. The licence specifies coverage of data (with exceptions), acknowledgements and responsibilities. The licence is free of charge. See Eurostat website for more information:  
[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=2233,1&\\_dad=portal&\\_schema=PORTAL](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=2233,1&_dad=portal&_schema=PORTAL)

### Data formats

Data can be downloaded in various formats: TAB (for spreadsheets), TXT, XML, TSV and dBase. Data can also be viewed as on-screen tables.

### **15.2.3 Comparability and data quality**

The Eurostat Dissemination Database is one of the best available sources of comparable aggregate statistics for ESS users. Though Eurostat does not collect data – this is done in the member states by their statistical authorities – it processes the data in order to ensure that they are comparable. A central programme in this respect is the European Statistical System, a network in which Eurostat is coordinating the harmonisation of statistics in cooperation with the national statistical authorities. The work of this programme concentrates mainly on EU policy areas. Yet with the extension of EU policies, harmonisation has been extended to nearly all statistical fields. Even though problems of comparability remain, Eurostat should be one of the best sources when it comes to providing comparable data.

The quality of Eurostat data is generally reputed to be high, and issues that might affect the data quality are usually noted in the documentation.

### **15.2.4 Relevance to ESS users**

Eurostat is probably the most important source of aggregate statistics for ESS users, as it publishes high-quality data on a wide range of topics. In addition, Eurostat is the only international statistics agency that publishes detailed data on a regional level. The main drawback is that the availability of data for central and eastern European countries is rather limited in many cases.

## **Sources**

### Publications

De Michelis, Alberto, and Alain Chantraine. 2003. *Memoirs of Eurostat: Fifty Years Serving Europe*. Luxembourg: European Communities.

[http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-49-02-183/EN/KS-49-02-183-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-49-02-183/EN/KS-49-02-183-EN.PDF) (21 February 2007).

Eurostat. 2006a. *Statistical References: Brief Information on Eurostat Products and Services*. Luxembourg: Office for Official Publications of the European Communities.

[http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-CL-06-001/EN/KS-CL-06-001-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-CL-06-001/EN/KS-CL-06-001-EN.PDF) (9 March 2007).

Eurostat. 2006b. *European Regional and Urban Statistics – Reference Guide*. Luxembourg: Office for Official Publications of the European Communities.

[http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-BD-06-001/EN/KS-BD-06-001-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-BD-06-001/EN/KS-BD-06-001-EN.PDF) (9 March 2007).

#### Electronic resources

European Statistical System:

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1153,47169267,1153\\_47183518&\\_dad=portal&\\_schema=PORTAL](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1153,47169267,1153_47183518&_dad=portal&_schema=PORTAL)

European System of Accounts, ESA95:

<http://forum.europa.eu.int/irc/dsis/nfaccount/info/data/esa95/esa95-new.htm>

Publications (full list):

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=2173,45564497&\\_dad=portal&\\_schema=PORTAL](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=2173,45564497&_dad=portal&_schema=PORTAL)

Quality profiles (structural indicators):

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1133,47800773,1133\\_47805778&\\_dad=portal&\\_schema=PORTAL](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1133,47800773,1133_47805778&_dad=portal&_schema=PORTAL)

RAMON:

[http://ec.europa.eu/eurostat/ramon/index.cfm?TargetUrl=DSP\\_PUB\\_WELC](http://ec.europa.eu/eurostat/ramon/index.cfm?TargetUrl=DSP_PUB_WELC)

Special Data Dissemination Standard (SDDS):

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=2353,1&\\_dad=portal&\\_schema=PORTAL](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=2353,1&_dad=portal&_schema=PORTAL)

#### Data download

Dissemination Database:

[http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1996,45323734&\\_dad=portal&\\_schema=PORTAL&screen=welcomeref&open=/&product=EU\\_MAIN\\_TREE&depth=1](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/&product=EU_MAIN_TREE&depth=1)

#### Appendices

1. List of tables and datasets
2. List of countries

#### Author of documentation

Data source documented by Rydland.

## 16. Fractionalisation Data

### 16.1 General information

#### Research project

The Fractionalisation dataset was compiled by Alberto Alesina and associates, and measures the degree of ethnic, linguistic and religious heterogeneity in various countries. The dataset was used in Alesina et al. (2003) to test the effects of fractionalisation on the quality of institutions and economic growth.

#### Dataset

Fractionalisation Data

#### Contact details and website

Website: <http://www.stanford.edu/~wacziarg/papersum.html>

### 16.2 Fractionalisation Data

#### 16.2.1 Contents

##### Data types and sources

Indices based on population data collected from *Encyclopaedia Britannica* (2001), CIA's *World Factbook* (2000), Levinson's *Ethnic Groups Worldwide* (1998), and Minority Rights Group International's *World Directory of Minorities* (1997). In most cases the primary source is national censuses.

##### Topics

The dataset contains three indices measuring the degree of ethnic, linguistic and religious heterogeneity in various countries. The indices are computed as one minus the Herfindahl index of group shares. The dataset also contains the underlying data used to construct the indices.

##### Geographical coverage

The dataset covers 215 countries and territories. All ESS countries are covered by the source. See Appendix C.16 for list of countries.

### Time coverage and updates

The dataset contains data for only one year for each country. The language and religion indices are based on data from 2001. Most of the data used to compute the ethnic fractionalisation index are from the 1990s, but for some countries older data are used.<sup>127</sup>

### Documentation

The dataset is described in Alesina et al. (2003).

## **16.2.2 Accessibility**

### Access conditions and costs

Available free of charge

### Access procedures

Predefined table.

### Data formats

Excel.

## **16.2.3 Comparability and data quality**

Defining ethnic, linguistic and religious groups is difficult and is often based on subjective judgement. In many cases it may also be difficult to find reliable data on how many people who belong to the various cultural groups. The underlying data used to construct the fractionalisation indices are therefore likely to be subject to problems of comparability and measurement error. See Alesina et al. (2003), Fearon (2003) and Posner (2004) for discussions of problems associated with various measures of cultural heterogeneity.

## **16.2.4 Relevance to ESS users**

There are relatively few datasets available with reliable data on ethnic, linguistic and religious groups. Alesina et al.'s fractionalisation indices therefore fill an important gap, and should be relevant to ESS users who are interested in measures of cultural heterogeneity.<sup>128</sup>

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<sup>127</sup> Another freely available dataset containing data on ethnic, religious and linguistic groups is the Ethnic Composition Data, compiled by Tanja Ellingsen. The dataset, used in Ellingsen (2000), relies on similar sources but covers a longer time period. See sources section for link to website.

## Sources

### Publications

Alesina, Alberto, Arnaud Devleeschauwer, William Easterly, Sergio Kurlat, and Romain Wacziarg. 2003. "Fractionalization". *Journal of Economic Growth* 8 (June): 155-194.

Ellingsen, Tanja, 2000. "Colorful community or ethnic witches' brew? Multiethnicity and domestic conflict during and after the cold war". *Journal of Conflict Resolution* 44 (April): 228-249.

Fearon, James D. 2003. "Ethnic structure and cultural diversity by country". *Journal of Economic Growth* 8 (June): 195-222.

Posner, Daniel N. 2004. "Measuring ethnic fractionalization in Africa". *American Journal of Political Science* 48 (October): 849-863.

### Electronic resources

Ethnic Composition Data:

<http://new.prio.no/CSCW-Datasets/Economic-and-Socio-Demographic-Data/Ethnic-Composition-Data/>

### Data download

Fractionalisation Data:

<http://www.stanford.edu/~wacziarg/papersum.html>

### Appendix

1. List of countries

### Author of documentation

Data source documented by Rydland.

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<sup>128</sup> Some other datasets may also be useful. The Minorities at Risk dataset, examined in Section 25, contains data on so-called communal groups, and the World Christian Database (Section 47) provides data on the religious composition of countries.

## 17. Freedom House

### 17.1 General information

#### Institution

Freedom House is a Washington-based non-governmental organisation established in 1941 to promote democracy around the globe. The organisation has since 1973 published the *Comparative Survey of Freedom*, which rates the level of democracy or freedom in all independent states and some disputed and dependent territories. Freedom House also conducts annual surveys on global media freedom, European and Eurasian nations in transition towards democracy, in-depth analyses of selected countries believed to be at a crossroad of their political development, as well as special reports focusing on particular fields or territories of interest.

#### Datasets

1. Freedom in the World

Yearly publication which measures freedom in countries and territories according to two broad categories political rights and civil liberties.

2. Freedom of the Press

Yearly publication which measures media freedom in countries and territories.

3. Nations in Transit

A comparative, multidimensional study measuring progress and setbacks in democratisation in 27 countries from central Europe to the Eurasian region of the former Soviet Union (Freedom House 2006c).

#### Contact details and website

Freedom House

Email: [info@freedomhouse.org](mailto:info@freedomhouse.org)

Website: <http://www.freedomhouse.org>

## 17.2 Freedom in the World

### 17.2.1 Contents

#### Data types and sources

Expert coding conducted by in-house analysts as well as outside consultant analysts. The sources include foreign and domestic news reports, academic analyses, non-governmental organisations, think tanks, individual professional contacts, and visits to the regions (Freedom House 2006a).

#### Topics

The dataset contains three main variables: an index of the level of political rights, an index of civil liberties, and the Freedom House Index (FHI), which is the average of the other two indices. The FHI is frequently used as a measure of democracy. The 2006 edition of *Freedom in the World* also includes data for the component variables used to construct the political rights and civil liberties indices. See Appendix C.17 for list of variables.

#### Geographical coverage

The 2006 edition of the FHI covers 192 countries and 14 related and disputed territories, up from 151 countries and 45 territories in its first year (1972).<sup>129</sup> All ESS countries are covered by the source. See Appendix C.17 for a list of countries and territories.

#### Time coverage and updates

Years covered: 1972 to present.

Updated annually.

#### Documentation

The methodology of the survey is described in the online edition of *Freedom in the World*. See also Gastil (1991) for a general presentation of the FHI. The index has been criticised for not listing the sources and explaining the coding rules in sufficient detail. An improvement in the 2006 edition is that scores on the component variables are now made publicly available. Footnotes on particular circumstances are included in the downloaded files.

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<sup>129</sup> The survey was then called *The Comparative Study of Freedom*. An even earlier predecessor to the Freedom House Index began in the 1950s as the Balance Sheet of Freedom, which was a modest report on political trends and their implications for individual freedom.

### **17.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined table. The entire dataset can be downloaded from Freedom House's website in a single file. On the site the user is also offered a visual presentation (map) of the scores along with an explanatory text for every country and territory.

#### Data formats

On-screen tables. Download available in Excel and PDF format.

### **17.2.3 Comparability and data quality**

The survey has grown in size and scope since its beginning in 1973, and the 2006 edition is the most extensive in its history. During its existence, modest changes have been made with regard to the methodology of the survey. But the time-series data are not revised retroactively, which means that index scores are not necessarily comparable over time.

Moreover, Freedom House has been criticised by several scholars with regards to conceptualisation, measurement and aggregation. See Munck and Verkuilen (2002) and Chapter 5 for a general discussion of democracy indices.

### **17.2.4 Relevance to the ESS Project**

Although the Freedom House Index has received much criticism, it remains an important source of reference to scholars, media and the wider public.

Having started to publish sub-category scores, the FHI now differentiates the ratings to a greater degree among countries. For analytical purposes this is an improvement, not least with regards to European consolidated democracies that are generally given the same overall score on the index. Since the majority of European countries are comparatively stable democracies, providing extensive political rights and civil liberties for their citizens, the score for countries in the region differed little in the original measures of the Freedom House Index. The score on each sub-category, however, allows for more detailed studies of the political situation in European countries.

## 17.3 Freedom of the Press

### 17.3.1 Contents

#### Data types and sources

Expert coding. The sources include information from correspondents, staff and consultant travel, international visitors, the findings of human rights and press freedom organisations, specialists in geographic and geopolitical areas, the reports of governments and multilateral bodies, and a variety of domestic and international news media (Freedom House 2006b).

#### Topics

The survey measures the level of freedom for the media in a country or territory. Countries are given a score from 0 (best) to 100 (worst), and are ranked as free, partly free or not free accordingly.

#### Geographical coverage

The 2006 edition covers 194 countries and territories. All ESS countries are covered by the source. See Appendix C.17 for list of countries.

#### Time coverage and updates

The country ranking of free, partly free and not free covers the time period from 1980 onwards. The numerical scale 0-100 was introduced in 1994. Updated annually.

#### Documentation

The methodology of the survey is described in the online edition of *Freedom in the Press*, but it only lists a general overview of the sources and the checklist-questions used to construct the index. Detailed coding rules are not provided.

### 17.3.2 Accessibility

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined table.

### Data formats

Excel.

### **17.3.3 Comparability and data quality**

Not examined. See J. Becker (2003) and L. Becker, Vlad and Nusser (2007) for evaluations.

### **17.3.4 Relevance to the ESS Project**

Unlike the Freedom House Index, this dataset does not present a country's score on sub-categories of press freedom. Documentation is also inadequate. The dataset is, however, popular among students of press freedom, and one of very few indices on this topic. It is therefore relevant to ESS users.

## **17.4 Nations in Transit**

### **17.4.1 Contents**

#### Data types and sources

Expert-coded data based on consensus from country-report authors and Freedom House and Nations in Transit advisors.

#### Topics

The topic is democratic change in seven areas: the electoral process, civil society, independent media, national democratic governance, local democratic governance, judicial framework and independence, and corruption. Every country is given a score from 1 to 7 (best to worst) on each area.

#### Geographical coverage

The dataset covers 27 countries from central Europe to the Eurasian region of the former Soviet Union. See Appendix C.17 for a list of countries.

ESS countries not covered: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### Time coverage and updates

The survey has been published annually since 1995, with the exception of 1996 and 1999.

Updated annually.

#### Documentation

The country reports, which are used to rate each country, can be found on the website. It is not stated what other information the analysts use in their evaluation.

### **17.4.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Country reports and ratings are easily accessible for the years 2003-2006, but earlier ratings were not found. There is no single table presenting all countries for every year.

#### Data formats

On-screen tables. Download available in PDF format.

### **17.4.3 Comparability and data quality**

The *Nations in Transit* ratings are given based on subjective impressions by country-report authors and other analysts. For outsiders it is impossible to judge whether a common standard is being followed for all countries. Therefore, comparability between countries is uncertain. Whether the data are comparable over time is also unknown.

### **17.4.4 Relevance to the ESS users**

The limited geographical scope of the data means that *Nations in Transit* is of little relevance to many ESS users, though some may find it useful.

## Sources

### Publications

Becker, John. 2003. "Keeping track of press freedom". *European Journal of Communication* 18 (1): 107-112.

Becker, Lee B., Tudor Vlad and Nancy Nusser. 2007. "An evaluation of press freedom indicators". *International Communication Gazette* 69 (1): 5-28.

Gastil, Raymond Duncan. 1991. "The Comparative Survey of Freedom: experiences and suggestions". In *On Measuring Democracy: Its Consequences and Concomitants*, ed. Alex Inkles. New Brunswick and London: Transaction.

Munck, Gerardo L., and Jay Verkuilen. 2002. "Conceptualizing and measuring democracy: evaluating alternative indices". *Comparative Political Studies* 35 (February): 5-34.

### Electronic resources

Freedom House. 2006a. *Freedom in the World 2006*, online edition. Accessible from: <http://www.freedomhouse.org/template.cfm?page=15&year=2006>

Freedom House. 2006b. *Freedom of the Press 2006*, online edition. Accessible from: <http://www.freedomhouse.org/template.cfm?page=16>

Freedom House. 2006c. *Nations in Transit*, online edition. Accessible from: <http://www.freedomhouse.org/template.cfm?page=17&year=2006>

### Appendices

1. Freedom in the World: List of countries
2. Freedom in the World: List of variables
3. Freedom of the Press: List of countries
4. Nations in Transit: List of countries
5. Nations in Transit: List of variables

### Author of documentation

Data source documented by Arnesen.

## 18. Groningen Growth and Development Centre

### 18.1 General information

#### Institution

The Groningen Growth and Development Centre (GGDC) is a research group of economists and economic historians at the Economics Department of the University of Groningen, founded in June 1992. The group carries out research on comparative analysis of levels of economic performance and differences in growth rates in the world economy.

#### Databases

The GGDC maintains several databases, which are listed below. The Total Economy Database is the only one to be examined in detail in this report.

1. Total Economy Database

Provides data on 125 countries about gross national products, annual working hours, employment and population.

2. 60-Industry Database

The 60-Industry Database provides an internationally comparable dataset on industrial performance at a detailed industry level for OECD countries and Taiwan.

3. Total Economy Growth Accounting Database

The GGDC Total Economy Growth Accounting Database has been set up to assess the impact of IT on aggregate economic growth performance in the European Union and the United States. It contains data on gross fixed capital formation at constant and current prices for six assets types, including three IT assets, together with growth rates of capital stocks and services.

4. ICOP Industry Database

The International Comparison of Output and Productivity by Industry database allows for comparisons of industry sectors across countries.

5. Dutch Historical National Accounts.

The dataset provide data on Dutch national accounts from the period 1800-1913.

6. 10-Sector Database

The 10-Sector Database consists of series on real GDP in national currencies, employment and, in some cases, annual working hours by broad sectors of the economy for about 20 countries across North America, Europe, Asia and Latin America from 1950 onwards.

7. SIID Database

The SIID Database contains internationally comparable indicators that measure innovation in services.

Contact details and website

Groningen Growth and Development Centre  
University of Groningen  
Email: [ggdc@eco.rug.nl](mailto:ggdc@eco.rug.nl)  
Website: <http://www.ggdc.net/index.html>

## 18.2 Total Economy Database

### 18.2.1 Contents

Data types and sources

Data based on official registers and national accounts, compiled from international organisations such as the OECD and the Vienna Institute for Comparative Economic Studies. The data are converted by the GGDC into comparable data.

Topics

The Total Economy Database consists of series on:

1. Real GDP
2. Population
3. Employment
4. Annual working hours
5. GDP per capita
6. GDP per person engaged
7. GDP per hour

### Geographical coverage

The database covers up to 130 countries. All ESS countries are covered by the source. See Appendix C.18 for list of countries.

### Time coverage and updates

First data are from 1950. Updated twice a year, in January and September.

### Documentation

Data sources are presented on the website, and a more detailed description is available for download.

## **18.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined table.

### Data formats

Excel and TXT files.

## **18.2.3 Comparability and data quality**

Not examined.

## **18.2.4 Relevance to ESS users**

Long time-series and comparable data across countries make the Total Economy Database attractive to users. With two yearly updates, the database covers the most recent data available.

## **Sources**

### Data download

Total Economy Database:

<http://www.ggdc.net/dseries/totecon.html>

Appendices

1. List of countries
2. List of variables

Author of documentation

Data source documented by Arnesen.

## 19. International Labour Organisation

### 19.1 General information

#### Institution

The International Labour Organisation (ILO) is a specialised agency of the United Nations (UN) that seeks to improve labour conditions and living standards throughout the world. It was established in 1919 by the Treaty of Versailles as an affiliated agency to the League of Nations, and became the first affiliated specialised agency of the UN in 1946. The ILO's functions include the promotion of standards for national legislation to protect and improve working conditions; providing technical assistance in social policy and administration and in workforce training; fostering cooperative organisations and rural industries; and protecting the rights of international migrants and organised labour. In addition, the organisation compiles labour statistics and conducts research on labour related issues (Liang 2001).

The ILO's Bureau of Statistics is assigned with providing users within and outside the organisation with relevant, timely and reliable labour statistics, to develop international standards for better measurement of labour issues and enhanced international comparability, and to help member states develop and improve their labour statistics. In doing so, it maintains professional relations with national statistical systems, especially central statistical agencies and ministries responsible for labour issues, and with statistics offices of other international organisations.

#### Databases

ILO hosts a wide range of statistical databases. Laborsta, the main database on labour statistics, is examined in some detail in this section. Other databases that may be of interest to some ESS users are listed below (see sources section for links):<sup>130</sup>

1. Child Labour Statistics: *Global in scope, available online free of charge*. Statistical Information Monitoring Programme on Child Labour (SIMPOC): statistics on child labour for selected countries and selected years.
2. Labour Force Surveys: *Global in scope, available online free of charge*. Links to national labour force survey results and documentation.

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<sup>130</sup> Data can also be accessed by topic through an ILO website that gives links to the various databases: <http://www.ilo.org/public/english/bureau/stat/portal/topics.htm>

3. The ILO International Labour Migration Database (ILM). *Global in scope; public part available online to all users, private part available to ILM Database Contributors.* The ILM was developed to make information on international migration widely available. The database complements efforts of other organisations, such as Eurostat, to collect information on various aspects and dimensions of migration, as well as on its impact on the labour markets of origin and destination countries.
4. Database of Conditions of Work and Employment Laws. *Global scope, available online free of charge.* The database contains legal information from countries around the world. It covers legislation on maternity protection, minimum wages and working time.
5. Key Indicators of the Labour Market (KILM). *Global in scope, available on request from [kilm@ilo.org](mailto:kilm@ilo.org).* Released twice a year, KILM has 20 indicators on the world's labour markets. Data from 1980 for all countries and territories for which data are available. The database is available in printed form and on CD-ROM.
6. Informal Sector Employment. *Global in scope, available on request from [stat@ilo.org](mailto:stat@ilo.org).* Information on informal sector employment and informal sector survey methodologies for developing countries and transition countries. Number of persons employed in the informal sector and share of informal sector employment in total employment, by sex and urban-rural areas.
7. LABMINW. *Global in scope, available on request from [travail@ilo.org](mailto:travail@ilo.org).* Numeric database on legal/statutory minimum wages, where relevant by region, industry or occupational group, covering some 80 countries, from 1980 to date.
8. UNION. *Global in scope, available on request from [stat@ilo.org](mailto:stat@ilo.org).* A special database on trade union membership. Based on official figures mainly from national publications, it contains data for 45 countries from 1990 onwards.
9. Vocational Education and Training. *Global in scope, available on request from [ifpskills@ilo.org](mailto:ifpskills@ilo.org).* A CD-ROM entitled "Preliminary database on investment in training".

Contact details and website

Bureau of Statistics  
International Labour Organisation  
Email: [stat@ilo.org](mailto:stat@ilo.org)  
Website: <http://www.ilo.org>

## 19.2 Laborsta

### 19.2.1 Contents

#### Data types and sources

Data from censuses, official registers, administrative records and labour force surveys.

#### Topics

The Laborsta database contains some 60 indicators and tables. It covers various labour related issues, such as the economically active population, employment, unemployment, hours of work, wages, consumer prices, occupational injuries, and strikes and lockouts. It is the main ILO statistical database and contains statistics published in the *Yearbook of Labour Statistics*, the *October Inquiry* and the *Bulletin of Labour Statistics*. It also includes estimates and projections of the economically active population. Some of the indicators are part of the ILO-Comparable Annual Estimates of Employment and Unemployment programme, which provides data adjusted for comparability. See Appendix C.19 for a list of variables and tables.

#### Geographical coverage

The database covers over 200 countries and territories, both existing and historical. The geographical scope varies by theme and over time. The ILO-Comparable estimates cover 30 countries, mainly developed ones. All ESS countries are covered by the source.<sup>131</sup> See Appendix C.19 for a list of countries.

#### Time coverage and updates

The temporal coverage varies across countries and by theme. Data from one table are available from 1945, most of the other main series from 1969. The ILO-Comparable estimates are available from 1981. The database is updated continuously. See Appendix C.19 for an overview of the temporal coverage of various indicators.

#### Documentation

Fairly detailed documentation is easily accessible under the Sources and Methods-tab in the online database. Data from the ILO-Comparable programme are described in Lepper (2004).

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<sup>131</sup> Several ESS countries are not covered by the ILO-Comparable estimates: Austria, Belgium, Bulgaria, Cyprus, Denmark, Greece, Hungary, Iceland, Israel, Italy, Luxembourg, Russia and Ukraine.

### **19.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

The data are accessed through an interactive application, which is fairly easy and straightforward to use. A help text explains how to use the application. It is possible to create subsets of the data by specifying the indicators, countries and years that are to be included in the output. A drawback is that it is only possible to download data from one table at a time; hence the database is very cumbersome to use if you wish to create a dataset with variables from several tables.

#### Data formats

On-screen tables. Download available in CSV format.

### **19.2.3 Comparability and data quality**

The data published as part of the ILO-Comparable programme are adjusted for comparability by the ILO. The quality and comparability of the other data collections may vary substantially. Even though the ILO works to ensure that data are comparable through promoting international statistical standards, countries may adopt diverging definitions and use different methods of data collection. Users should therefore examine the documentation carefully before using data from the database.

### **19.2.4 Relevance to ESS users**

The Laborsta database can be a good source of labour related statistics, though in some areas other organisations, such as the OECD and Eurostat, may provide more detailed data.

## **Sources**

#### Publications

Lepper, Ferdinand. 2004. "ILO-comparable annual employment and unemployment estimates". *Bulletin of Labour Statistics* (4): ix-lvi.

Liang, Oliver. 2001. "Governing globalization: labour economic paradigms and international labour standards at the International Labour Organisation, 1919-1998". Presented at Interactions:

Regional Studies, Global Processes, and Historical Analysis, Library of Congress, Washington D.C., 28 February - 3 March 2001.

<http://www.historycooperative.org/proceedings/interactions/liang.html> (26 March 2007).

### Electronic resources

ILO Bureau of Statistics:

<http://www.ilo.org/public/english/bureau/stat/>

ILO Statistics by Topic:

<http://www.ilo.org/public/english/bureau/stat/portal/topics.htm>

Bulletin of Labour Statistics:

<http://www.ilo.org/public/english/bureau/stat/child/actrep/bulletin.htm>

<http://www.ilo.org/public/english/bureau/stat/papers/listart.htm> (some articles available online, free of charge)

Yearbook of Labour Statistics:

<http://www.ilo.org/public/english/bureau/stat/child/actrep/yearbook.htm>

Labour Force Surveys:

<http://www.ilo.org/dyn/lfsurvey/lfsurvey.home>

Key Indicators of the Labour Market (KILM):

<http://www.ilo.org/public/english/employment/strat/kilm/index.htm>

Informal Sector Employment:

<http://www.ilo.org/public/english/bureau/stat/portal/dbases.htm>

LABMINW:

<http://www.ilo.org/public/english/bureau/stat/portal/dbases.htm>

UNION:

<http://www.ilo.org/public/english/bureau/stat/portal/dbases.htm>

Vocational Education and Training:

<http://www.ilo.org/public/english/bureau/stat/portal/dbases.htm>

### Data download

Laborsta Database:

<http://laborsta.ilo.org/>

Child Labour Statistics:

<http://www.ilo.org/public/english/standards/ipecc/simpoc/index.htm>

<http://www.ilo.org/dyn/clsurvey/lfsurvey.home>

International Labour Migration Database:

<http://www.ilo.org/public/english/protection/migrant/ilmdb/index.htm>

Database of Conditions of Work and Employment Laws:

<http://www.ilo.org/public/english/protection/condtrav/database/>

Appendices

1. List of countries
2. List of indicators/tables

Author of documentation

Data source documented by Rydland.

## 20. International Monetary Fund

### 20.1 General information

#### Institution

The International Monetary Fund (IMF) is a United Nations specialised agency, set up to secure international monetary cooperation, to stabilise currency exchange rates and to expand international liquidity. Together with the World Bank, the fund is often referred to as a Bretton Woods institution, after the place where the conference that led to their establishment took place in 1944. Since its creation, the IMF's principal activities have included stabilising currency exchange rates, financing the short-term balance-of-payments deficits of member countries and providing advice and technical assistance to borrowing countries (Encyclopædia Britannica 2006). The IMF is also a major producer of statistics, publishing a range of time-series data on IMF lending, exchange rates and other economic and financial indicators.

#### Databases

1. World Economic Outlook (WEO)
2. International Financial Statistics (IFS)

#### Contact details and website

International Monetary Fund

Email (general inquiries): [publicaffairs@imf.org](mailto:publicaffairs@imf.org)

Website: <http://www.imf.org/>

### 20.2 World Economic Outlook

#### 20.2.1 Contents

##### Data types and sources

Data mainly based on official registers and national accounts, compiled from the national statistical offices of the member states.

##### Topics

The WEO online database includes 31 time-series for various economic indicators, e.g. various GDP data, investment, inflation, unemployment rates, population, general government balance and debt, and current account balance.

### Geographical coverage

The database covers some 180 countries and territories. All ESS countries are covered by the source. See Appendix C.20 for list of countries.

### Time coverage and updates

Data are available from 1980 to present. (The IMF has stopped providing data prior to 1980 due to difficulties in verifying the accuracy of the historical data. However, a broader historical coverage may be found in the sister publication IFS.) All data have a yearly frequency.

### Documentation

Definitions, sources and notes on specific circumstances are shown in the database as the user constructs a table.

## **20.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

The database is easy to use. A step-by-step bar informs users where they are in the process, and it is possible to specify countries, time periods and indicators.

### Data formats

On-screen tables. Download available in Excel format.

## **20.2.3 Comparability and data quality**

IMF data are frequently used in international comparisons, and the quality of the data is generally assumed to be fairly high. However, as with other international organisations, the data come from the statistical systems of member countries and the quality therefore depends on how well these national systems perform. For some countries, data are incomplete or unavailable for certain years. There are also several incidences of apparent discrepancies for similarly defined variables (Pellechio and Cady 2006).

#### **20.2.4 Relevance to ESS users**

The main strengths of WEO as a data source are its broad geographical coverage and easy access to documentation. The IMF is a good source for macroeconomic statistics, but on other dimensions other institutions offer a broader range of variables.

### **20.3 International Financial Statistics**

#### **20.3.1 Contents**

##### Data types and sources

Data mainly based on official registers and national accounts, compiled from the national statistical offices of the member states.

##### Topics

The IFS database reports current data needed in the analysis of problems of international payments and of inflation and deflation, that is, data on exchange rates, international liquidity, international banking, money and banking, interest rates, prices, production, international transactions, government accounts, and national accounts.

##### Geographical coverage

Global coverage.

##### Time coverage and updates

The IFS database contains time-series data from 1948 (yearly), and is updated frequently.

##### Documentation

Not examined.

#### **20.3.2 Accessibility**

##### Access conditions and costs

Subscribers only. Yearly fee for non-profit institutions with five users or less: \$1.440. Free trial periods are available.

Access procedures

Not examined.

Data formats

Not examined.

### **20.3.3 Comparability and data quality**

IMF data are frequently used in international comparisons, and the quality of the data is generally assumed to be fairly high. However, as with other international organisations, the data comes from the statistical systems of member countries and the quality therefore depends on how well these national systems perform. There are also several incidences of apparent discrepancies for similarly defined variables (Pellechio and Cady 2006).

### **20.3.4 Relevance to ESS users**

The main strengths of IFS as a data source are its broad geographical and temporal coverage, and easy access to documentation. The IFS is probably too extensive and detailed for most ESS users, but it may be of interest to some.

## **Sources**

Publications

Encyclopædia Britannica. 2006. "International Monetary Fund". Retrieved 20 September 2006, from *Encyclopædia Britannica Online*.

<http://search.eb.com/eb/article-224469>

Pellechio, Anthony, and John Cady. 2006. "Differences in IMF data: incidence and implications". *IMF Staff Papers* 53 (2): 326-349.

Data download

World Economic Outlook:

<http://www.imf.org/external/ns/cs.aspx?id=28>

International Financial Statistics:

<http://ifs.apdi.net/imf/logon.aspx>

Appendices

1. World Economic Outlook: List of countries
2. World Economic Outlook: List of variables

Author of documentation

Data source documented by Arnesen.

## 21. Inter-Parliamentary Union

### 21.1 General information

#### Institution

The Inter-Parliamentary Union (IPU) is the international organisation of parliaments of sovereign states, with more than 140 national parliaments as members. It was established in 1889, and works for peace and cooperation among peoples and for the firm establishment of representative democracy. Situated in Geneva, Switzerland, it is financed primarily by its members out of public funds.

#### Dataset

Women in National Parliaments

#### Contact details and website

Inter-Parliamentary Union

Email: [postbox@mail.ipu.org](mailto:postbox@mail.ipu.org)

Website: <http://www.ipu.org/>

### 21.2 Women in National Parliaments

#### 21.2.1 Contents

##### Data types and sources

Data from administrative records collected by the IPU from national parliaments.

##### Topics

The dataset consists of eight variables that list the current number of female representatives in national parliaments around the world. See Appendix C.21 for list of variables.

##### Geographical coverage

The dataset covers 189 countries. All ESS countries are covered by the source. See Appendix C.21 for list of countries.

##### Time coverage and updates

First data are from 1997. The data is updated 6-12 times a year.

Documentation

No documentation is provided.

**21.2.2 Accessibility**

Access conditions and costs

Available free of charge.

Access procedures

Predefined tables.

Data formats

On-screen tables.

**21.2.3 Comparability and data quality**

Not examined.

**21.2.4 Relevance to ESS users**

The dataset is relevant to ESS users because it is the prime source on the number of female representatives in national parliaments around the world.

**Sources**

Data download

Women in National Parliaments:

<http://www.ipu.org/wmn-e/classif.htm>

Appendices

1. List of countries
2. List of variables

Author of documentation

Data source documented by Arnesen.

## 22. Judicial Checks and Balances

### 22.1 General information

#### Research project

The dataset was compiled by Rafael La Porta and associates and contains data on the judicial systems in various countries. The dataset was used in a study that examined the relationship between two key aspects of the judiciary – judicial independence and constitutional review – and the degree of political and economic freedom. The results of the study were published in La Porta et al. (2004).

#### Dataset

Judicial Checks and Balances Data

#### Contact details and website

Rafael La Porta

Tuck School of Business at Dartmouth

Email: [rafael.laporta@dartmouth.edu](mailto:rafael.laporta@dartmouth.edu)

Website: <http://mba.tuck.dartmouth.edu/pages/faculty/rafael.laporta/publications.html>

### 22.2 Judicial Checks and Balances

#### 22.2.1 Contents

##### Data types and sources

Expert-coded data based on national constitutions and secondary sources.

##### Topics

The dataset contains 34 variables. The key indicators measure various aspects of judicial systems, in particular the degree of judicial independence and constitutional review. In addition, the dataset contains indicators of political and economic freedom, ethnolinguistic fractionalisation and economic wealth. Some of the variables were coded by the producers of the dataset, but the majority are reproduced from other sources. See Appendix C.22 for list of variables.

##### Geographical coverage

The dataset covers 71 countries, including 18 (western) European ones. See Appendix C.22 for list of countries.

ESS countries not covered: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Luxembourg, Poland, Romania, Russia, Slovakia, Slovenia and Ukraine.

#### Time coverage and updates

The dataset contains only one entry for each country on each variable. Since the character of a country's judiciary does not change rapidly, the judicial variables describe more or less permanent features of judicial systems, rather than the situation during a particular year. Frequency of updates not stated.

#### Documentation

All variables are described in brief in La Porta et al. (2004).

### **22.2.2 Accessibility**

#### Access conditions and costs

Available free of charge

#### Access procedures

Predefined table.

#### Data formats

Excel.

### **22.2.3 Comparability and data quality**

Not examined.

### **22.2.4 Relevance to ESS users**

The dataset is of relevance to ESS users who are interested in measures of judicial independence and constitutional review, but the limited geographical scope may limit its applicability.

## Sources

### Publications

La Porta, Rafael, Florencio López-de-Silanes, Cristian Pop-Eleches and Andrei Shleifer. 2004. "Judicial checks and balances". *Journal of Political Economy* 112 (April): 445-470.

### Data download

Judicial Checks and Balances:

<http://mba.tuck.dartmouth.edu/pages/faculty/rafael.laporta/publications.html>

### Appendices

1. List of countries
2. List of variables

### Author of documentation

Data source documented by Rydland.

## 23. Lijphart Elections Archive

### 23.1 General information

#### Research project

The Lijphart Elections Archive (LEA), housed at the University of California, San Diego, is a research collection of district-level election results for several countries. Arend Lijphart began compiling the LEA in the early 1980s. The archive has informed several of the most influential publications on electoral systems and their effects (e.g., Lijphart 1994; Lijphart and Grofman 1984, 1986; Cox 1997). The original scope of the LEA was to collect national election results in hard-copy format for the lower or only house of the legislature and for any directly elected upper house in 27 older democracies. The scope has now been expanded in several directions: more countries, a longer time span, sub-national as well as national elections, and, in particular, data in electronic format.

#### Dataset

Lijphart Elections Archive (LEA)

#### Contact details and website

Lijphart Elections Archive

Email: [ssdc@gort.ucsd.edu](mailto:ssdc@gort.ucsd.edu)

Website: <http://dodgson.ucsd.edu/lij/>

### 23.2 Lijphart Elections Archive

#### 23.2.1 Contents

##### Data types and sources

Election data. The archive also lists publications of election statistics.

##### Topics

The archive contains the results of approximately 350 elections. Most datasets cover votes per party, eligible voters and valid votes. Others also include invalid votes, turnout and seat distributions. The variety of sources of the data produces a corresponding heterogeneity in information reported. However, only a limited number of datasets are available online; many of the datasets are only available as printed publications at the UCSD library.

### Geographical coverage

The archive contains information on 47 countries, but in many cases data are not available online. Data are also available at district level in some cases. See Appendix C.23 for a list of countries.

- ESS countries not covered: Cyprus, Estonia, Hungary, Israel, Latvia, Romania and Ukraine.
- ESS countries not covered by online data: Belgium, Bulgaria, Denmark, Finland, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Slovakia, Slovenia, Sweden, Switzerland and the United Kingdom.
- ESS countries partially covered by online data: Austria, Czech Republic, Germany, Portugal, Russia, Spain and Turkey.

### Time coverage and updates

The temporal coverage varies by country. The long-established democracies are covered for the 1945-2003 period. The database has not been updated since 2003.

### Documentation

Codebooks follow some of the datasets, but generally no further documentation is provided.

## **23.2.2 Accessibility**

### Access conditions and costs

Online datasets are available free of charge.

### Access procedures

Predefined tables. All data and sources are sorted under country-specific headings. Available datasets are accessible by adjacent links. Most of the datasets are only available in printed publications from the UCSD library, so their utility to scholars in other parts of the world is limited.

### Data formats

On-screen tables.

### 23.2.3 Comparability and data quality

Data quality is generally considered to be high, but the LEA does not always guarantee for the validity of datasets mirrored from external sources. These results also run the risk of not corresponding with the original source should it be updated or corrected.

### 23.2.4 Relevance to ESS users

The main weakness of the LEA is the incomprehensiveness of the online resources. Some countries are well covered (e.g., Spain and Portugal), while others are not covered at all by the online datasets (e.g., Denmark and France). The LEA thus only has the potential of serving as a complementary source of election data.

## Sources

### Publications

Coates, Renata G. 1996. *Democratic Elections on the Internet: The Lijphart Elections Archive*. San Diego: University of California

Cox, Gary W. 1997. *Making Votes Count: Strategic Coordination in the World's Electoral Systems*. Cambridge: Cambridge University Press.

Lijphart, Arend 1994. *Electoral Systems and Party Systems: A Study of Twenty-seven Democracies, 1945-1990*. Oxford: Oxford University Press.

Lijphart, Arend, and Bernard Grofman. 1984. *Choosing an Electoral System: Issues and Alternatives*. New York: Praeger

Lijphart, Arend, and Bernard Grofman. 1986. *Electoral Laws and their Political Consequences*. New York: Agathon.

### Data download

Lijphart Elections Archive:  
<http://dodgson.ucsd.edu/lij/>

### Appendix

1. List of countries

### Author of documentation

Data source documented by Østensen.

## 24. Migration DRC

### 24.1 General information

#### Institution

The Development Research Centre on Migration, Globalisation and Poverty (Migration DRC, for short) is a partnership of eight institutions located in five countries: Bangladesh, Ghana, Albania, Egypt and the United Kingdom. The centre aims to promote new policy approaches to migration and poverty, and undertakes a programme of research on migration. As part of this research programme, Migration DRC has compiled a global database on stocks of immigrants by country of origin and destination.

#### Dataset

Global Migrant Origin Database

#### Contact details and website

Migration DRC  
University of Sussex, United Kingdom  
Email: [migration@sussex.ac.uk](mailto:migration@sussex.ac.uk)  
Website: <http://www.migrationdrc.org>

### 24.2 Global Migrant Origin Database

#### 24.2.1 Contents

##### Data types and sources

Population data primarily based on censuses. In cases where census data were not available, data from population registers or other sources were used. Some of the data were generated by disaggregating data from the primary sources through estimation procedures. The database extends the basic stock data on international migration that is published by the United Nations (link provided in the sources section).

##### Topics

The database contains data on immigrant stocks by country or territory of origin. The data are available in four versions, each progressively more complete but more speculative than the last. The first version contains all the raw data collected with a few adjustments. The fourth version is the most complete in terms of coverage and detail, but it is probably the least accurate set of data.

### Geographical coverage

The database covers 226 countries and territories, listed in Appendix C.24. All ESS countries are covered by the source.

### Time coverage and updates

Most of the data were collected as part of the 2000 round of censuses, which covers censuses taken between 1995 and 2004. Older data were used when this information was not available. Frequency of updates not stated.

### Documentation

The database is described in detail in Parsons et al. (2007), a working paper that can be downloaded from a World Bank website. In addition to providing information on sources and estimation procedures, the working paper discusses problems of data quality and comparability.

## **24.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined tables.

### Data formats

Excel.

## **24.2.3 Comparability and data quality**

Not examined, but see Parsons et al. (2007: 8-9) for a general discussion.

## **24.2.4 Relevance to ESS users**

The main strength of the Global Migrant Origin Database is its extensive geographical coverage. For most ESS countries, more detailed immigrant statistics are available from Eurostat and the OECD (for example the OECD's Database on Immigrants and Expatriates), but Migration DRC

data can be a valuable supplement to these sources for some countries. See also Salt (2005) and Kupiszewska and Nowok (2005) for general information and data.

## Sources

### Publications

Kupiszewska, Dorota, and Beata Nowok. 2005. *Comparability of Statistics on International Migration Flows in the European Union*. CEFMR Working Paper 7/2005, Central European Forum for Migration Research. [http://www.cefmr.pan.pl/docs/cefmr\\_wp\\_2005-07.pdf](http://www.cefmr.pan.pl/docs/cefmr_wp_2005-07.pdf) (6 December 2007).

Parsons, Christopher R., Ronald Skeldon, Terrie L. Walmsley and L. Alan Winters: "Quantifying international migration: a database of bilateral migrant stocks". World Bank Policy Research Working Paper, WPS4165 (March). <http://go.worldbank.org/J4ZJ1ZMK40> (5 December 2007).

Salt, John. 2005. *Current Trends in International Migration in Europe*. Council of Europe. [http://www.refugeelawreader.org/28/Current Trends in International Migration in Europe.pdf](http://www.refugeelawreader.org/28/Current_Trends_in_International_Migration_in_Europe.pdf) (6 December 2007).

### Electronic resources

United Nations Department of Economic and Social Affairs, Population Division: [http://www.un.org/esa/population/publications/2006Migration\\_Chart/2006IttMig\\_chart.htm](http://www.un.org/esa/population/publications/2006Migration_Chart/2006IttMig_chart.htm)

OECD's Database on Immigrants and Expatriates: [http://www.oecd.org/document/51/0,3343,en\\_2825\\_494553\\_34063091\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/51/0,3343,en_2825_494553_34063091_1_1_1_1,00.html)

### Data download

Global Migrant Origin Database: [http://www.migrationdrc.org/research/typesofmigration/global\\_migrant\\_origin\\_database.html](http://www.migrationdrc.org/research/typesofmigration/global_migrant_origin_database.html)

### Appendices

1. List of countries

### Author of documentation

Data source documented by Rydland.

## 25. Minorities at Risk Project

### 25.1 General information

#### Research project

The Minorities at Risk (MAR) Project is an independent, university-based research project that aims to monitor and analyse the status and conflicts of so-called communal groups (i.e., cultural and religious minorities) around the world (Davenport 2003: 5). The project was initiated by Ted Robert Gurr in 1986 and has been based at the Center for International Development and Conflict Management, University of Maryland, since 1988. The dataset is widely used in studies of minority groups, e.g. Fearon and Laitin (1999), Gurr (1993) and Saideman et al. (2002).

#### Dataset

MAR Data

#### Contact details and website

Center for International Development and Conflict Management

University of Maryland

Email: [minpro@cidcm.umd.edu](mailto:minpro@cidcm.umd.edu)

Website: <http://www.cidcm.umd.edu/inscr/mar/>

### 25.2 MAR Data

#### 25.2.1 Contents

##### Data types and sources

Some of the variables in the database contain data from official statistics or similar sources, such as estimates of group size. The most important variables are, however, mainly standards-based data, coded by trained students.

##### Topics

The MAR project tracks 284 politically active ethnic groups on political, economic, and cultural dimensions. The dataset contains a large number of variables that describe the status and activity of communal groups. The variables are organised in five main groups: (1) group characteristics and status, (2) group discrimination, (3) group organisation, (4) group collective interests, and (5) group conflict behaviour. See Davenport (2003) for a more detailed description of the variables, and Appendix C.25 for a list of topics covered by the data.

### Geographical coverage

The basic unit in the database is not countries, but communal groups. The current version of the MAR monitors 284 politically active communal groups considered to be “minorities at risk” in some 120 countries throughout the world. The concept of a minority at risk “refers to an ethnopolitical group (non-state communal group) that: collectively suffers, or benefits from, systematic discriminatory treatment vis-à-vis other groups in a society; and/or collectively mobilises in defense or promotion of its self-defined interests” (Davenport 2003: 5).<sup>132</sup> See Appendix C.25 for a list of countries and communal groups.

- ESS countries not covered: Austria, Belgium, Denmark, Iceland, Ireland, Luxembourg, the Netherlands, Poland, Portugal and Slovenia.
- ESS countries partially covered: Finland, Norway and Sweden.<sup>133</sup>

### Time coverage and updates

Years covered: 1940-2003.

The project team plans to update the database every other year.

### Documentation

The dataset is described in a fair amount of detail in the codebook, which is available online. The MAR project has not published any overview of the sources used to construct the indicators, but individual researchers can gain access to some of the documentation by arrangement with the project coordinator.

## **25.2.2 Accessibility**

### Access conditions and costs

Available free of charge. Registration required.

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<sup>132</sup> In 2006, MAR decided to adopt far more inclusive criteria to identify communal groups around the world. These new criteria, which will be implemented over a period of several years, will move MAR away from its traditional criteria of discrimination and/or mobilisation and aim to capture all ethnic/communal groups in a country that meet a minimal population threshold. MAR has also decided to reduce the number of variables in future updates to include only a core of approximately 40 variables. This set of variables will also be back-coded for all new groups (MAR website, accessed 16 January 2007).

<sup>133</sup> Data for the Sami minority included under an aggregate of Nordic countries.

### Access procedures

It is possible to download the entire dataset as an ASCII file. However, the full dataset may be cumbersome and difficult to manipulate. The best way to access the data is therefore through the MARGene program, which has been designed specifically to allow easy access to data in the MAR dataset. Through MARGene, scholars can access variables, create subsets of the data, interpolate across unobserved data points and set up the data for merging with other datasets. The program also allows users to specify subsets of the data based on time and space, and specify various options concerning data creation. The program then creates a new, customised dataset that can be loaded into statistical analysis software such as Stata, SPSS or Limdep for further manipulation and/or analysis (Bennett and Davenport 2007: 1). The MARGene program can be downloaded after registering on the MAR website. Though the program is designed to make it easier to access the data, users must be prepared to spend some time to understand how it works.

### Data formats

ASCII format. With the MARGene program it is possible to manipulate data and customise datasets that can be loaded into statistical programmes such as SPSS, Stata and Limdep.

### **25.2.3 Comparability and data quality**

Some problems should be noted. First, the criteria for including a group in the dataset are quite restrictive: only groups that collectively suffer or benefit from discrimination and/or are collectively mobilised, are included in the MAR project. The dataset therefore suffers from a selection bias, since many possibly relevant groups – e.g., ethnic groups that are not discriminated against and that are not mobilised politically – are not included in it (Hug 2003: 256). According to an announcement on the MAR website, the project will deal with this problem in the future by including all ethnic/communal groups in a country that meet a minimal population threshold. The problem of selection bias will therefore be reduced in the future, even though any criteria used to identify communal groups will involve some bias.

A second problem concerns the reliability of the data. The sources used to code the variables are not made easily accessible to independent researchers, and it is therefore difficult to replicate the results. In addition, the project has not yet assessed inter-coder reliability. And finally, as all standards-based human-rights indicators, the data may suffer from validity problems. The quality of the standardised scales depends in large measure on the quality of the primary data. Accordingly, if there are any deficiencies in the primary sources, these will be reflected in the standardised scales.

## 25.4 Relevance to ESS users

One of the main strengths of the MAR project lies in its focus. According to Gurr (1993: 162), “No international body certifies, counts, or records statistics on communal groups.” MAR thus fills a gap in social science statistics and is, in the words of Landman and Häusermann (2003: 24), “a unique effort to study the state of minority groups around the globe”. Another strength of MAR is its fairly long time scope, with some time-series stretching back to 1940. In addition, the database will be updated regularly in the future, ensuring that it will remain relevant to users.

## Sources

### Publications

Bennett, D. Scott, and Christian Davenport. 2007. *MARGene: Minorities at Risk Data Generation and Management Program*. V1.05, Documentation. University of Maryland.

Davenport, Christian. 2003. *Minorities at Risk. Dataset Users Manual, 030703*. University of Maryland.

Fearon, James D., and David D. Laitin. 1999. “Weak states, rough terrain, and large-scale ethnic violence since 1945”. Prepared for delivery at the 1999 Annual Meetings for the American Political Science Association, 2-5 September 1999, Atlanta, Georgia.

Gurr, Ted Robert. 1993. “Why minorities rebel: a global analysis of communal mobilization and conflict since 1945”. *International Political Science Review* 14 (April): 161-201.

Hug, Simon. 2003. “Selection bias in comparative research: the case of incomplete data sets”. *Political Analysis* 11 (Summer): 255-274.

Landman, Todd, and Julia Häusermann. 2003. *Map-making and Analysis of the Main International Initiatives on Developing Indicators on Democracy and Good Governance*. Report prepared for Eurostat. Colchester, UK: Human Rights Centre, University of Essex.  
[http://www.oecd.org/LongAbstract/0,2546,en\\_2649\\_34565\\_20755720\\_119699\\_1\\_1\\_1,00.html](http://www.oecd.org/LongAbstract/0,2546,en_2649_34565_20755720_119699_1_1_1,00.html)  
(12 June 2007).

Saideman, Stephen M., David J. Lanoue, Michael Campenni and Samuel Stanton. 2002. “Democratization, political institutions and ethnic conflict: a pooled time-series analysis, 1985-1998”. *Comparative Political Studies* 35 (February): 103-129.

### Data download

MAR Data:

<http://www.cidcm.umd.edu/mar/data.asp>

Appendices

1. List of countries and communal groups
2. List of topics

Author of documentation

Data source documented by Rydland.

## 26. OECD

### 26.1 General information

#### Institution

The Organisation for Economic Cooperation and Development (OECD) is an international organisation established in 1961 to stimulate economic progress and world trade. It originates from the Organisation for European Economic Cooperation (OEEC), founded in 1948 to coordinate the Marshall Plan for the reconstruction of Europe after second world war (Salzman 2000: 774-775). As of 2007, the OECD grouped 30 member countries, and had active relationship with some 70 other countries.

One of the main purposes of the organisation is to achieve the highest possible economic growth and employment and a rising standard of living in the member countries. As the OECD lacks the power to enforce its recommendations, it is essentially an advisory body. In part for this reason, the organisation is a major producer of statistics and macroeconomic analyses, covering economic and social issues from macroeconomics to trade, education and development. In many of these fields, the OECD has become an authoritative source of statistical data (Salzman 2000: 778).

#### Databases

The OECD maintains several databases, covering a wide range of topics. Data can be accessed through four different portals on OECD's website: Statistics Portal, OECD.Stat, SourceOECD and OECD Index of Statistical Variables (links provided below). The four portals contain many of the same variables, but the interface, functionalities and download options vary. The portals are therefore examined separately. Most of the data are also published in printed publications, such as *OECD Factbook*, *OECD in Figures* and *OECD Economic Outlook*.

#### Contact details and website

Organisation for Economic Cooperation and Development  
For contact information for the various departments, see website.  
Website: <http://www.oecd.org>

## 26.2 Statistics Portal

### 26.2.1 Contents

#### Data types and sources

The OECD publishes a variety of statistical data, mainly from official registers, administrative records, national accounts and censuses. Some statistics are also based on surveys and research programmes, such as labour force surveys and the Programme for International Student Assessment (PISA).

#### Topics

The Statistics Portal provides access to some OECD databases as well as extracts from all other databases, classified by topic. Many of the statistical tables made available through the Statistics Portal are reproduced from OECD publications, such as *OECD Main Economic Indicators* and *OECD Country Statistical Profiles*.

As of March 2007, the portal offered nearly 400 datasets (see Appendix C.26 for complete list). However, some of the titles published under the heading “Statistics, Data and Indicators” do not contain any statistical data – sometimes the titles are really methodological discussions – so the real number of datasets is somewhat lower. The portal covers the following 26 topics:

1. Agriculture and fisheries
2. Demography and population
3. Development
4. Economic projections
5. Education and training
6. Energy
7. Environment
8. Finance
9. General statistics
10. Globalisation
11. Health
12. Industry and services
13. Information and communication technology
14. International trade and balance of payments
15. Labour

16. Monthly economic indicators
17. National accounts
18. Non-member economies
19. Prices and purchasing-power parities
20. Productivity
21. Public sector, taxation and market regulation
22. Regional statistics
23. Science, technology and patents
24. Social and welfare statistics
25. Statistical methodology
26. Transport

### Geographical coverage

Most of the datasets in the Statistics Portal cover the 30 member countries of the OECD, 23 of which are European. Some datasets also cover non-member countries, such as Brazil, China and Russia. See Appendix C.26 for list of member countries and some of the non-member countries for which data are available. The OECD also publishes some regional statistics.

- ESS countries not covered: Bulgaria, Cyprus, Estonia, Israel, Latvia, Romania, Slovenia and Ukraine.<sup>134</sup>
- ESS country partially covered: Russia.

### Time coverage and updates

The time coverage varies: many of the key economic indicators are available from about 1960, while other indicators, such as obesity and reading test scores, are published only for more recent years.<sup>135</sup> Some of the key economic indicators, such as GDP figures and unemployment rates, are updated several times a year, others annually. Some series are discontinued.

### Documentation

Data are documented in detail both online and in various printed publications. Each topic in the Statistics Portal usually contains links to methodological manuals, discussing issues of definition, data quality and comparability. However, the documentation is not presented in a standardised

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<sup>134</sup> Some of the OECD's statistical collections also contain data for these countries, but generally this is the exception.

<sup>135</sup> The dataset with the longest time scope is the *Historical Statistics for the World Economy* (Maddison 2001), which for some countries contains data from the year 1 AD.

way across the various topics, so users must spend some time to get familiar with how the documentation is presented in each case.

The OECD also publishes reports and briefs on the comparability and quality of statistics. Some of these reports may be inaccessible to readers not familiar with the topic, but the *OECD Factbook* series contain some good summaries of definitions and issues of comparability. The Statistical Methodology portal contains links to several sources of documentation, e.g. an online Glossary of Statistical Terms, workshop documents and methodological manuals (links provided below). An overview of available statistics from the OECD can be found in *OECD Statistics Catalogue* (OECD 2005).

### **26.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

The data are not published in a standardised online database. Rather, you access the various datasets by browsing through topics and subtopics. The datasets are presented in several different ways: as Excel files, on-screen tables or in PDF format. Some datasets are linked to the OECD.Stat database or other databases.

Since the datasets are not published in a uniform, standardised way, the Statistics Portal may be a bit unwieldy to use. By browsing through the topics you can usually find the statistics you are looking for. However, many of the datasets appear to be containing the same data, and it may take some time to find out what, if anything, distinguishes them from each other.

Many of the datasets are presented as predefined tables, hence it is not possible to manipulate the data or create subsets of them. In the cases where datasets are accessed through other OECD databases, increased functionalities may be available.

#### Data formats

Data are mainly published in Excel format. Some tables are only published as PDF documents.

### **26.2.3 Comparability and data quality**

The OECD (2003: 2) prides itself of producing, in some areas, statistics that “are internationally recognised as the ‘best’ in terms of coverage, timeliness, and comparability.” Furthermore, the

improvement of the data quality is seen as a key objective at the OECD and was one of the main aims of the OECD Statistics Strategy (OSS) launched in 2001 (ibid: 5). Nonetheless, even though data are presented as comparable in standardised tables, some problems of comparability are likely to remain. The progress of the OSS can be traced at the OECD Statistical Programme of Work website (link provided below).

#### **26.2.4 Relevance to ESS users**

Many of the data produced by the OECD are likely to be highly relevant to ESS users. OECD data are particularly useful within the following areas: the labour market, the educational system, demography, macroeconomic performance and various aspects of the “quality of life” (e.g., obesity, income inequality and prison population). The major drawback is that statistics in many cases are published only for OECD countries, thus excluding a number of ESS countries.

### **26.3 SourceOECD**

#### **26.3.1 Contents**

##### Data types and sources

See Section 26.2.1.

##### Topics

SourceOECD is an e-library offering online access to all OECD books, reports, annuals, working papers, loose-leaf binders, periodicals and databases. The statistics service of SourceOECD provides interactive access to the databases of both the OECD and the International Energy Agency (IEA). The OECD databases contain some 350 main datasets (as of March 2007), which again hold a number of datasets. The IEA databases contain over 180 datasets. See Appendix C.26 for a list of datasets. In addition to the databases, SourceOECD Statistics also provides access to the statistical tables in OECD publications in PDF format. The OECD databases cover the following topics:

1. Agriculture and food
2. Bank profitability
3. Economic outlook
4. Education statistics
5. Employment and labour markets

6. Globalisation
7. Health data
8. Indicators for industry and services
9. Institutional investors
10. Insurance
11. International development
12. International direct investment
13. International migration
14. International trade and competitiveness
15. ITCS International trade by commodity
16. Main economic indicators
17. Monthly international trade
18. National accounts
19. Revenue
20. Science and technology
21. Services
22. Social expenditure
23. STAN Industry structural analysis
24. Structural and demographic business statistics
25. Taxing wages
26. Telecommunications

#### Geographical coverage

See Section 26.2.1.

#### Time coverage and updates

See Section 26.2.1.

#### Documentation

The documentation provided in the interactive databases is often very limited, so users must consult the original publication to find out what the statistics mean and how they are collected. The original publications can be accessed through SourceOECD.

The OECD publishes many reports and briefs on the comparability and quality of statistics. Some of these reports may be inaccessible to readers not familiar with the topic, but the

*OECD Factbook* series contain some good summaries of definitions and issues of comparability. In the Statistics Portal, the Statistical Methodology section contains links to several sources of documentation, e.g. an online Glossary of Statistical Terms, workshop documents, and methodological manuals (links provided below).

### **26.3.2 Accessibility**

#### Access conditions and costs

Access to the databases is restricted to subscribers. Free trial periods are available. Users can either subscribe to the entire SourceOECD or specific datasets or publications, so prices vary significantly. See website for price lists (link provided in sources section).

#### Access procedures

The data can be accessed either as PDF files, which are online versions of tables in printed publications, or through interactive databases.<sup>136</sup> The databases can be accessed either by browsing various themes and publications or by using the search function.

The interactive databases are fairly straightforward to use and it is usually easy to find the variables you are looking for. A drawback is that identical or nearly identical variables are included in several databases, making it difficult for users to know which variable to use. This is problematic in cases where seemingly identical variables report different values for the same unit.<sup>137</sup>

The databases are presented using the Beyond 20/20 software, which enables users to create subsets of the data by specifying the indicators, units and time periods which are to be included in the output. A drawback is that it does not appear to be possible to create a single dataset with variables from different databases. To get a single file with variables from several databases, you must first download data from each database separately before merging them.

#### Data formats

Data can be downloaded in Excel and CSV format, in addition to Beyond 20/20's IVT format.

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<sup>136</sup> Note that the interactive databases run best on Internet Explorer or Netscape; you may experience difficulties if you use other browsers.

<sup>137</sup> In the dataset Labour Force Statistics – Summary Tables, the civilian unemployment rate in Sweden in 2005 is 7.8; in the dataset Economic Outlook No. 80 the unemployment rate is 5.8. It is difficult to see from the documentation why the discrepancy is so large.

### **26.3.3 Comparability and data quality**

See Section 26.2.3.

### **26.3.4 Relevance to ESS users**

See Section 26.2.4.

## **26.4 OECD.Stat**

### **26.4.1 Contents**

#### Data types and sources

See Section 26.2.1.

#### Topics

OECD.Stat is the OECD's statistical warehouse and provides a single access point for statistical data and metadata. As of March 2007, the publicly available version of the database contained some 170 datasets. (Not all data are available to all users of the system.) See Appendix C.26 for a complete list of datasets. OECD.Stat covers the following topics:

1. Agriculture and fisheries
2. Development
3. Education and training
4. Finance
5. General statistics
6. Health
7. Industry and services
8. International trade and balance of payments
9. Labour
10. Monthly economic indicators
11. National accounts
12. Prices and purchasing-power parities
13. Public sector, taxation and market regulation
14. Science, technology and patents
15. Social and welfare statistics

### Geographical coverage

See Section 26.2.1.

### Time coverage and updates

See Section 26.2.1.

### Documentation

Each dataset in the database is linked to metadata. The detail of the metadata varies; in some cases it might be necessary to consult other OECD publications to find out what the statistics mean and how they are collected.

The OECD publishes many reports and briefs on the comparability and quality of statistics. Some of these reports may be inaccessible to readers not familiar with the topic, but the *OECD Factbook* series contain some good summaries of definitions and issues of comparability. In the Statistics Portal, the Statistical Methodology section contains links to several sources of documentation, e.g. an online Glossary of Statistical Terms, workshop documents, and methodological manuals (links provided below).

## **26.4.2 Accessibility**

### Access conditions and costs

The database is available online, free of charge, but not all data are available to all users of the system.

### Access procedures

The database is organised hierarchically, and you find datasets by browsing through themes and sub-themes. It is also possible to find datasets and variables by using the search function. A user guide available online explains how to use the database.

The database is fairly straightforward and intuitive to use; it is generally easy to find the data you are looking for. Users can create subsets of the data by specifying various dimensions, e.g. indicators, geographical units and time periods. Registered users can save queries for later use. As with the other OECD databases, a drawback is that there does not appear to be an easy way of creating a single dataset with variables from different datasets.

### Data formats

Data can be exported as Excel and TXT files.

### **26.4.3 Comparability and data quality**

See Section 26.2.3.

### **26.4.4 Relevance to ESS users**

See Section 26.2.4.

## **26.5 Index of Statistical Variables**

### **26.5.1 Contents**

#### Types of data

See Section 26.2.1.

#### Topics

The OECD Index of Statistical Variables is an alphabetical listing of frequently requested variables that link to predefined tables containing those variables, and to the databases or publications on SourceOECD in which the listed variables may be found. The listing contains 140 variables and covers a broad range of topics such as demography, economy and finance, education, the labour market, and social expenditure. See Appendix C.26 for a complete list of variables.

#### Geographical coverage

See Section 26.2.1.

#### Time coverage and updates

See Section 26.2.1.

#### Documentation

The documentation provided in the predefined tables varies, but is generally rather limited. In many cases, users must consult the original publications to get a detailed understanding of the variables.

### **26.5.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined tables.

#### Data formats

Excel.

### **26.5.3 Comparability and data quality**

See Section 26.2.3.

### **26.5.4 Relevance to ESS users**

See Section 26.2.4.

## **Sources**

#### Publications

Maddison, Angus. 2001. *The World Economy: A Millennial Perspective*. Paris: OECD Development Centre Seminars.

OECD. 2003. *Quality Framework and Guidelines for OECD Statistical Activities*, Version 2003/1. Paris: OECD Statistics Directorate.

OECD. 2005. *OECD Statistics Catalogue 2006*. Paris: OECD.

[http://www.oecd.org/dataoecd/46/43/35551755.pdf#search=%22OECD%20Statistics%20Catalogue%](http://www.oecd.org/dataoecd/46/43/35551755.pdf#search=%22OECD%20Statistics%20Catalogue%20) (20 March 2007).

Salzman, James. 2000. "Labor rights, globalization and institutions: the role and influence of the Organization for Economic Cooperation and Development". *Michigan Journal of International Law* 21 (Summer): 769-848.

#### Electronic resources

OECD Glossary of Statistical Terms

<http://stats.oecd.org/glossary/>

OECD Statistical Methodology

[http://www.oecd.org/topicstatsportal/0,2647,en\\_2825\\_497125\\_1\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/topicstatsportal/0,2647,en_2825_497125_1_1_1_1_1,00.html)

OECD Statistical Programme of Work

<http://www.oecd.org/statistics/workprogramme>

OECD Statistics Brief

[http://www.oecd.org/document/59/0,2340,en\\_2649\\_33715\\_1844528\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/59/0,2340,en_2649_33715_1844528_1_1_1_1,00.html)

OECD Factbook 2005

<http://puck.sourceoecd.org/vl=8331332/cl=17/nw=1/rpsv/fact2005/>

OECD Factbook 2006

<http://titania.sourceoecd.org/vl=1758072/cl=16/nw=1/rpsv/factbook/>

SourceOECD price list

<http://lysander.sourceoecd.org/vl=6430318/cl=25/nw=1/rpsv/pricelist.htm>

### Data download

Statistics Portal

[http://www.oecd.org/statsportal/0,3352,en\\_2825\\_293564\\_1\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/statsportal/0,3352,en_2825_293564_1_1_1_1_1,00.html)

SourceOECD

<http://puck.sourceoecd.org/>

OECD.Stat

<http://stats.oecd.org/wbos/>

OECD Index of Statistical Variables

<http://www.oecd.org/dataoecd/32/21/36029941.html>

### Appendices

1. List of countries
2. OECD Statistics Portal: List of datasets
3. SourceOECD Statistics: List of datasets
4. OECD.Stat: List of datasets
5. OECD Index of Statistical Variables: List of variables

### Author of documentation

Data source documented by Rydland.

## 27. Party Policy in Modern Democracies

### 27.1 General information

#### Research project

The dataset was compiled by Kenneth Benoit and Michael Laver, and measures policy positions of political parties in various countries. The dataset, which in a sense is the successor of a dataset compiled by Laver and Hunt (1992), are presented and analysed in Benoit and Laver (2006).

#### Dataset

Party Policy in Modern Democracies

#### Contact details and website

Kenneth Benoit (Trinity College, Dublin): [kbenoit@tcd.ie](mailto:kbenoit@tcd.ie)

Michael Laver (New York University): [ml127@nyu.edu](mailto:ml127@nyu.edu)

Website: <http://www.politics.tcd.ie/ppmd/>

### 27.2 Party Policy in Modern Democracies

#### 27.2.1 Contents

##### Data types and sources

Data based on survey of experts.

##### Topics

The dataset contains measures of the policy positions of political parties on various political dimensions. The importance of the policy dimensions to each party is also estimated. Most or all parties are measured on eight central dimensions, including economic policy, social policy, the environment and the general left-right scale. In addition, 30 other dimensions are measured in selected countries only. See Appendix C.27 for list of dimensions.

##### Geographical coverage

The dataset covers 47 countries and territories. All ESS countries are covered by the source. See Appendix C.27 for list of countries.

##### Time coverage and updates

Data collected between late 2002 and early 2004. Whether the data will be updated is not stated.

### Documentation

Definitions and data collection procedures are explained in detail in Benoit and Laver (2006: Chap. 4 and Appendix A).

### **27.2.2 Accessibility**

#### Access conditions and costs

Available free of charge

#### Access procedures

Predefined table.

#### Data formats

Stata and SPSS portable.

### **27.2.3 Comparability and data quality**

Not examined, but issues bias and random error are discussed in Benoit and Laver (2006: Chap. 4 and Appendix A).

### **27.2.4 Relevance to ESS users**

The dataset is a good source of information on policy positions of political parties, but a potential problem is that data are only available for one point in time. ESS users who are interested in examining trends over time may find the data from the Comparative Manifestos Project (CMP) more useful. This source is not examined in this report since the data are not available online. For many countries, CMP data cover the period 1945-2003, and are available on CD-ROM included in Budge et al. (2001) and Klingemann et al. (2006).<sup>138</sup>

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<sup>138</sup> One version of the dataset, covering the period 1945-1988, is also available from the Central Archive for Empirical Social Research, University of Cologne.

## Sources

### Publications

Benoit, Kenneth, and Michael Laver. 2006. *Party Policy in Modern Democracies*. London: Routledge.

Budge, Ian, Hans-Dieter Klingemann, Andrea Volkens, Judith Bara and Eric Tanenbaum. 2001. *Mapping Policy Preferences. Estimates for Parties, Electors, and Governments 1945-1998*. Oxford: Oxford University Press.

Klingemann, Hans-Dieter, Andrea Volkens, Judith Bara, Ian Budge and Michael MacDonald. 2006. *Mapping Policy Preferences II. Estimates for Parties, Electors, and Governments in Eastern Europe, the European Union and the OECD, 1990-2003*. Oxford: Oxford University Press.

Laver, Michael, and W. Ben Hunt. 1992. *Policy and Party Competition*. New York and London: Routledge.

### Electronic resources

The Manifesto Project at ZA (Central Archive for Empirical Social Research, University of Cologne):

[http://www.gesis.org/en/research/EUROLAB/data\\_resources/manifestos.htm](http://www.gesis.org/en/research/EUROLAB/data_resources/manifestos.htm)

### Data download

Party Policy in Modern Democracies:

<http://www.politics.tcd.ie/ppmd/>

### Appendix

1. List of countries
2. List of dimensions

### Author of documentation

Data source documented by Rydland.

## 28. Penn World Table

### 28.1 General information

#### Institution

The Penn World Table (PWT) provides a set of economic time-series based on national accounts covering most of the countries in the world. The dataset is produced by researchers at the University of Pennsylvania (Penn), and is based on the so-called benchmark comparisons of the International Comparison Programme (ICP). The Penn was closely involved in the early benchmark studies in the 1960s and 70s; in 1980 the participation of the university changed to combining the results of various regional benchmark studies into world benchmark comparisons. This effort became the basis for extending the work across countries and time in the form of the Penn World Table.

The latest version of the dataset, the PWT 6.2, was prepared by Alan Heston, Robert Summers and Bettina Aten at the Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania.

#### Databases

Penn World Table 6.2.

#### Contact details and website

Center for International Comparisons  
University of Pennsylvania  
Email: [pwt@econ.upenn.edu](mailto:pwt@econ.upenn.edu)  
Website: <http://pwt.econ.upenn.edu/>

## 28.2 Penn World Table

### 28.2.1 Contents

#### Data types and sources

Data from national accounts and official registers.

#### Topics

The PWT contains 24 variables, mainly economic time-series. The main aim of the dataset is to allow for real quantity comparisons, both between countries and over time, by denominating the expenditure entries in a common set of prices in a common currency. The core of the dataset is

therefore various variables measuring gross domestic product at purchasing-power parity (GDP at PPP). In addition, the PWT provides information about relative prices within and between countries, as well as demographic data and capital stock estimates. See Appendix C.28 for a list of variables.

#### Geographical coverage

The dataset contains data for 188 countries, including all ESS countries. See Appendix C.28 for a list of countries.

#### Time coverage and updates

Years covered: 1950-2004 (2000 as base year).

The PWT is updated regularly with an interval of some years. A major revision of the PWT will be undertaken from 2007 and onwards. The publication date of the revised version is not stated.

#### Documentation

The variables are described in a fair amount of detail in the Data Appendix, which is available online. The PWT is also described in Summers and Heston (1991).

### **28.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

The data are accessed through an interactive application that is easy and straightforward to use. The application allows users to specify subsets of the data by selecting countries, years and variables.

#### Data formats

On-screen tables. Download available in SAS and CSV format.

### **28.2.3 Comparability and data quality**

The data in the PWT are compiled and adjusted especially in order to permit comparisons between countries and over time, using purchasing-power parities (PPPs) based on benchmark

comparisons from the International Comparison Programme (ICP). The PWT is one of the most widely used sources of GDP at PPP statistics (Neary 2004: 1411), and it has been used in a host of acclaimed scholarly works in comparative politics (e.g., Przeworski et al. 2000; Ross 2001).

Nonetheless, it should be noted that there are some problems associated with comparing GDP statistics across countries and over time, and that the method used to calculate the PPPs in the PWT has been criticised by some scholars for overestimating the GDP of low-income countries. See Chapter 2 in Part 1 for a general discussion of the comparability of GDP data.

#### **28.2.4 Relevance to ESS users**

GDP data from the PWT are widely used in the social sciences, and should therefore be highly relevant to many ESS users. One of the main strengths of the dataset is its long time scope and broad geographical coverage. More detailed purchasing-power and real-product estimates are available from Eurostat and the OECD, but most social science researchers would probably find the PWT data sufficient. However, PWT and OECD/Eurostat use different methods to calculate the PPPs – the Geary-Kamis and the EKS methods, respectively. The EKS method is by some scholars considered to be less biased, and some users may therefore prefer to use GDP data from the OECD and Eurostat. See Chapter 2 in Part 1 for a more detailed discussion.

### **Sources**

#### Publications

Neary, J. Peter. 2004. “Rationalizing the Penn World Table: true multilateral indices for international comparisons of real income”. *American Economic Review* 94 (December): 1411-1428.

Przeworski, Adam, Michael E. Alvarez, José Antonio Cheibub and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. Cambridge: Cambridge University Press.

Ross, Michael L. 2001. “Does oil hinder democracy?” *World Politics* 53 (April): 325-361.

Summers, Robert, and Alan Heston. 1991. “The Penn World Table (mark 5): an expanded set of international comparisons, 1950-1988”. *Quarterly Journal of Economics* 106 (May): 327-368.

#### Electronic resources

Center for International Comparisons at the University of Pennsylvania:  
<http://pwt.econ.upenn.edu/>

Data download

Penn World Table:

[http://pwt.econ.upenn.edu/php\\_site/pwt\\_index.php](http://pwt.econ.upenn.edu/php_site/pwt_index.php)

Appendices

1. List of countries
2. List of variables

Author of documentation

Data source documented by Rydland.

## 29. Political Constraint Index Dataset

### 29.1 General information

#### Research project

The Political Constraint Index Dataset (POLCON) was produced by Witold J. Henisz, and is an endeavour to measure political constraint, that is, to identify underlying political structures and measure their ability to support credible policy commitments.

#### Dataset

Political Constraint Index Dataset (POLCON)

#### Contact details and website

Witold Henisz  
Wharton School  
University of Pennsylvania  
Email: [henisz@wharton.upenn.edu](mailto:henisz@wharton.upenn.edu)  
Website: <http://www-management.wharton.upenn.edu/henisz/>

### 29.2 POLCON

#### 29.2.1 Contents

##### Data types and sources

Expert coding by the author, based on sources from datasets such as Polity IV, the Cross-National Time-Series Data Archive and others.

##### Topics

The dataset contains 90 variables (including country identifiers) that measure various features of the legislative, executive and judicial branches of government. The central variables are indices that seek to estimate the degree of political constraints. See Appendix C.29 for list of variables.

##### Geographical coverage

The dataset covers 226 present and historical countries. All ESS countries are covered by the source. See Appendix C.29 for country list.

### Time coverage and updates

First data for some of the variables are from 1800. Last data is up to 2004. The dataset is updated every three years, next updated planned for end of 2008.

### Documentation

A codebook (Henisz 2006) providing detailed descriptions of how the variables were coded and which sources were used is available online.

## **29.2.2 Accessibility**

### Access conditions and costs

Available free of charge. Registration required.

### Access procedures

Predefined table.

### Data formats

Excel and Microsoft Access.

## **29.3 Comparability and data quality**

Not examined

## **29.4 Relevance to ESS users**

The dataset might be of use to ESS users interested in the effect of political systems on policy and regime changes.

## **Sources**

### Publications

Henisz, Witold J. 2000. "The institutional environment for economic growth". *Economics and Politics* 12 (1): 1-31.

Henisz, Witold J. 2002. "The institutional environment for infrastructure investment". *Industrial and Corporate Change* 11 (2): 355-389.

Henisz, Witold J. 2006. *Polcon\_2005 Codebook*.

<http://www-management.wharton.upenn.edu/henisz/> (11 April 2007).

Data download

POLCON:

<http://www-management.wharton.upenn.edu/henisz/POLCON/ContactInfo.html>

Appendices

1. List of countries
2. List of variables

Author of documentation

Data source documented by Arnesen.

## 30. Political Terror Scale

### 30.1 General information

#### Research project

The Political Terror Scale (PTS) is one of the most widely used indicators in comparative analyses of human-rights practices. The scale measures the respect for the rights associated with the integrity of the person, and was originally generated by Michael Stohl and David Carleton in the 1980s. Since then, the PTS has been updated by several researchers and used in a number of studies of various aspects of human-rights practices (e.g., Apodaca and Stohl 1999; Carleton and Stohl 1987; Poe, Tate and Keith 1999).

#### Dataset

Several versions of the Political Terror Scale (PTS) dataset are available online, with different geographical and temporal coverage. The latest version of the dataset is maintained by Mark Gibney (University of North Carolina Asheville); the version used in Poe, Tate and Keith (1999) contains data for some years not covered in Gibney's dataset.

#### Contact details and website

Mark Gibney

University of North Carolina Asheville

Email: [mgibney@unca.edu](mailto:mgibney@unca.edu)

Website (Gibney):

<http://www.unca.edu/politicalscience/images/Colloquium/faculty-staff/gibney.html>

Website (Poe, Tate and Keith): <http://www.psci.unt.edu/ihrsc/poetate.htm>

## 30.2 Political Terror Scale

### 30.2.1 Contents

#### Data types and sources

Standards-based indicators. Expert coding based on the US State Department's *Country Reports on Human Rights Practices* and Amnesty International's *Annual Report*.

#### Topics

The PTS dataset consists of two variables, one based on the US State Department's *Country Reports*, the other on Amnesty International's *Annual Report*. The variables attempt to measure the

degree of arbitrary physical harm and coercion by the government or non-governmental actors. The same criteria are used to code both variables.

#### Geographical coverage

Gibney: 179 countries (see Appendix C.30 for a complete list). All ESS countries are covered by the source.

Poe, Tate and Keith: 179 countries (country names not listed in the dataset).

#### Time coverage and updates

Gibney: Covers the period 1980-2005. Updated annually.

Poe, Tate and Keith: 1976-1993. Frequency of updates not stated.

#### Documentation

The coding rules are described in Gibney and Dalton (1996), which is available for download from Mark Gibney's website. See also Hathaway and Ho (2004) and McCormick and Mitchell (1997) for critical assessments of the PTS, and Poe, Carey and Vazquez (2001) for an analysis of the difference between the US State Department and Amnesty International human-rights reports.

### **30.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Both versions: predefined tables.

#### Data formats

Gibney: Tables in PDF-format.

Poe, Tate, and Keith: SPSS Portable and ASCII.

### **30.2.3 Comparability and data quality**

It is difficult to measure human rights in a clear and objective manner, and users of the data should be aware that there might be considerable problems of comparability and measurement

error. See Goldstein (1992), Landman (2004) and Chapter 5 for a more detailed discussion of human-rights indicators in general.

### 30.2.4 Relevance to ESS users

The PTS is among the most widely used as indicators of human-rights practices, and should therefore be of relevance to all ESS users who wish to incorporate a measure for human-rights practices in their analyses.

## Sources

### Publications

Apodaca, Clair, and Michael Stohl. 1999. "United States human rights policy and foreign assistance". *International Studies Quarterly* 43 (1): 185–198.

Carleton, David, and Michael Stohl. 1987. "The role of human rights in US foreign assistance policy: a critique and reappraisal". *American Journal of Political Science* 31 (November): 1002-1018.

Gibney, Mark, and Matthew Dalton. 1996. "The Political Terror Scale". In David L. Cingranelli (ed.): *Human Rights and Developing Countries*, Greenwich: JAI.

Goldstein, Robert Justin. 1992. "The limitations of using quantitative data in studying human rights abuses". In *Human Rights and Statistics: Getting the Record Straight*, eds. Thomas B. Jabine and Richard P. Claude. Philadelphia: University of Pennsylvania Press.

Hathaway, Oona A., and Daniel E. Ho. 2004. "Characterizing measurement error in human rights". Presented at the APSA Annual Meeting, Chicago, 2-5 September 2004.  
<http://people.iq.harvard.edu/~dho/research/hr.html>

Landman, Todd. 2004. "Measuring human rights: principle, practice, and policy". *Human Rights Quarterly* 26 (November): 906-931.

McCormick, James M., and Neil J. Mitchell. 1997. "Human rights violations, umbrella concepts, and empirical analysis". *World Politics* 49 (4): 510-525.

Poe, Steven C., Sabine C. Carey and Tanya C. Vazquez. 2001. "How are these pictures different? A quantitative comparison of the US State Department and Amnesty International human rights reports, 1976-1995". *Human Rights Quarterly* 23 (August): 650-677.

Poe, Steven C., Neal Tate and Linda Camp Keith. 1999. "Repression of the human right to personal integrity revisited: a global cross-national study covering the years 1976-1993". *International Studies Quarterly* 43 (June): 291–313.

### Data download

Poe, Tate and Keith (University of North Texas):

<http://www.psci.unt.edu/ihrsc/>

Mark Gibney (University of North Carolina Asheville):

<http://www.unca.edu/politicalscience/images/Colloquium/faculty-staff/gibney.html>

Appendix

1. List of countries (Gibney)

Author of documentation

Data source documented by Rydland.

## 31. Political Transformation in Post-Communist Europe

### 31.1 General information

#### Research project

The Project on Political Transformation and the Electoral Process in Post-Communist Europe was part of the Economic and Social Research Council's One Europe or Several? research programme. The project was based in the Department of Government at the University of Essex between May 1999 and May 2002. The research investigated how different aspects of the electoral system affect democratic performance and the process of political reform in post-communist Europe.

#### Dataset

Political Transformation and the Electoral Process in Post-Communist Europe

#### Contact details and website

Department of Government  
University of Essex  
Email: [elect@essex.ac.uk](mailto:elect@essex.ac.uk)  
Website: <http://www.essex.ac.uk/elections/>

### 31.2 Political Transformation in Post-Communist Europe

#### 31.2.1 Contents

##### Data types and sources

Election data, individual data and legislative information.

##### Topics

The database covers three main aspects of election data:

1. Election results for parliamentary elections and presidential elections
2. Candidate data
3. Legislative data

Election results include information about the date of election, number of voters registered, votes cast and valid votes. The candidate data consist of individual data on party affiliation, sex,

occupation etc., while the legislative data accounts for electoral laws in the region and changes in them over time.

#### Geographical coverage

The core countries covered by the database include 12 post-communist European countries. In some cases, data for other post-communist states are also provided. See Appendix C.31 for a list of countries.

ESS countries not covered: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, the Netherlands, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### Time coverage and updates

The database covers elections held in the period 1990 to 2002. The database will not be updated.

#### Documentation

Sources are listed for all datasets and codebooks are available for the candidate data.

### **31.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

National and constituency-level data and candidate data are given in predefined tables. Election laws can be searched by country, election year and by twelve topic areas.

#### Data formats

On-screen tables, Excel and SPSS.

### **31.2.3 Comparability and data quality**

A major strength of this database is its comprehensive coverage of election-related data. The potential effects of changing electoral laws on election results can thus easily be studied over time. Candidate data also constitute a valuable resource in election research. Data are generally collected from election authorities or other reliable sources and are thus of high quality. The

International Foundation for Electoral Systems, and the Association of Central and East European Election Officials have also contributed to the database, a further pledge to the quality of the data. In contrast to most sources of post-democratisation eastern European election data, the database does not reduce the (often) high numbers of parties into an “other parties” category and the comparative potential is as such not reduced.

#### **31.2.4 Relevance to ESS users**

The database is highly relevant to ESS users looking for election-related data for the twelve countries covered. However, the research project is terminated and the database is not updated beyond 2002.

### **Sources**

#### Data download

Political Transformation and the Electoral Process in Post-communist Europe:  
<http://www2.essex.ac.uk/elect/database/database.asp>

#### Appendix

1. List of countries

#### Author of documentation

Data source documented by Østensen.

## 32. Polity Project

### 32.1 General information

#### Research project

The latest version of the Polity Project, the Polity IV, is a continuation of a research programme established by Ted Robert Gurr in the 1970s. Originally, the aim of the project was to measure political system durability. In subsequent years, the analytical scope was broadened to encompass the issue of regime type more generally, and today the project's main index is a measure of the degree of democracy and autocracy (Jagers and Gurr 1995: 470).

The project is currently maintained through a partnership between the University of Maryland's Center for International Development and Conflict Management and George Mason University's Center for Global Policy, with Monty G. Marshall and Keith Jagers as the co-principal investigators.

#### Datasets

Polity IV dataset

#### Contact details and website

Monty Marshall  
Center for Global Policy  
George Mason University  
Email: [mmarsha5@gmu.edu](mailto:mmarsha5@gmu.edu)  
Website: <http://www.cidcm.umd.edu/polity/>

## 32.2 Polity IV

### 32.2.1 Contents

#### Data types and sources

Ordinal-scale indicators. Expert coding based on a subjective interpretation of historical monographs and other source materials.

#### Topics

The core of the dataset is made up of composite indices that measure the degree of democracy and autocracy. The most widely used of the indices is the Polity index, which combines the scores on the democracy and autocracy indices to a single regime indicator. The component

variables that are used to construct the composite indices are also published in disaggregate form. Including country identifiers, the dataset consists of 36 variables. All the variables are listed in Appendix C.32.

#### Geographical coverage

The dataset covers all independent states with a total population greater than 500.000. The latest version contains data for 180 countries, including some historical political entities such as Baden Saxony and Parma. See Appendix C.32 for a list of countries.

ESS countries not covered: Iceland and Luxembourg.

#### Time coverage and updates

Years covered: 1800-2004.<sup>139</sup>

Updated approximately every other year.

#### Documentation

The dataset is described in detail in *Polity IV Project: Dataset Users' Manual* (Marshall and Jaggers 2005), available online. The users' manual gives a brief introduction to the background of the Polity Project, and specifies the coding rules for each variable. An earlier version of the dataset is described in Jaggers and Gurr (1995).

### **32.2.2 Accessibility**

#### Access conditions and costs

Available free of charge. Registration required.

#### Access procedures

Predefined table. The entire dataset can be downloaded in a single file, organised in country-year format. Increased functionalities are available to EUGene users.<sup>140</sup>

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<sup>139</sup> Long-established countries are coded beginning in 1800; more recently established countries are coded from the year in which their first independent government was formed.

<sup>140</sup> EUGene is a data management tool for creating datasets for use in quantitative analysis. The program can be downloaded free of charge from the EUGene website (link provided below).

### Data formats

The dataset is available in three versions: an annual time-series dataset, a “polity-case” dataset and a version specially formatted for EUGene users. The annual time-series and the polity-case datasets are available in SPSS and Excel format.

#### **32.2.3 Comparability and data quality**

All attempts to measure a concept such as democracy – and all indicators that are based on subjective interpretations – are bound to be uncertain and contested. So also with the Polity Project, which is sometimes criticised for relying on a too minimalist definition of democracy and for not offering a theoretical justification for the way the component variables are aggregated to a single regime index. On the other hand, Polity is often given credit in terms of the reliability of the index: the coding rules are clearly specified in the users’ manual, the component variables are presented in disaggregate form and several coders are used in the coding process.

See Hadenius and Teorell (2005), Munck and Verkuilen (2002) and Chapter 5 of this report for a detailed discussion of the comparability and quality of democracy indices in general. For independent reviews of the Polity index in particular, see Gleditsch and Ward (1997) and Goertz (2006: chap. 4).

#### **32.2.4 Relevance to ESS users**

The Polity indices are among the most widely used indices of democracy, and should therefore be of relevance to all ESS users who wish to incorporate a measure for regime type in their analyses. However, the way Polity measures democracy and autocracy has been criticised, and some users may find other democracy indices more appropriate.

### **Sources**

#### Publications

Hadenius, Axel, and Jan Teorell. 2005. “Assessing alternative indices of democracy”. C&M Political Concepts Working Papers 6, IPSA (August).

[http://www.concepts-methods.org/papers\\_list.php?id\\_categoria=1&titulo=Political%20Concepts](http://www.concepts-methods.org/papers_list.php?id_categoria=1&titulo=Political%20Concepts) (5 June 2007).

Gleditsch, Kristian S., and Michael D. Ward. 1997. “Double take: a reexamination of democracy and autocracy in modern polities”. *Journal of Conflict Resolution* 41 (June): 361-383.

Goertz, Gary. 2006. *Social Science Concepts: A User's Guide*. Princeton and Oxford: Princeton University Press.

Jagers, Keith, and Tedd Robert Gurr. 1995. "Tracking democracy's third wave with the Polity III data". *Journal of Peace Research* 32 (November): 469-482.

Marshall, Monty G., and Keith Jagers. 2005. *Polity IV Project: Dataset Users' Manual*. Arlington: Polity IV Project.

Munck, Gerardo L., and Jay Verkuilen. 2002. "Conceptualizing and measuring democracy: evaluating alternative indices". *Comparative Political Studies* 35 (February): 5-34.

#### Electronic resources

EUGene:

<http://www.eugenesoftware.org/>

#### Data download

Polity IV:

<http://www.cidcm.umd.edu/polity/data/>

#### Appendices

1. List of countries
2. List of variables

#### Author of documentation

Data source documented by Rydland.

## 33. Polyarchy and Contestation Scales

### 33.1 General information

#### Research project

The Polyarchy and Contestation Scales measure the level of the contestation dimension of polyarchy in independent states. The dataset was compiled by Michael Coppedge and Wolfgang Reinicke, and has been used in several studies of democratisation, e.g. Coppedge (1997).

#### Dataset

Polyarchy and Contestation Scales

#### Contact details and website

Michael Coppedge  
Kellogg Institute  
University of Notre Dame  
Email: [coppedge.1@nd.edu](mailto:coppedge.1@nd.edu)  
Website: <http://www.nd.edu/~mcoppedg/crd/datacrd.htm>

## 33.2 Polyarchy and Contestation Scales

### 33.2.1 Contents

#### Data types and sources

Expert-coded variables, based on a number of sources. The only source of information for the 2000 data was the US State Department's *Country Reports on Human Rights* from 2001; multiple sources of information were used for the 1985 data. The data for 1985 are coded by Michael Coppedge and Wolfgang Reinecke, while the data for 2000 were coded by graduate and undergraduate students at the University of Notre Dame.

#### Topics

The dataset sets out to measure levels of the contestation dimension of polyarchy in independent countries worldwide. It consists of 11 variables that measure media pluralism, fairness of elections and other characteristics associated with the concept of democracy/polyarchy. Based on these variables, two scales (from 1 to 9) indicate the level of contestation and polyarchy in countries around the world.

### Geographical coverage

The dataset covers 196 countries. All ESS countries are covered by the source. See Appendix C.33 for list of countries.

### Time coverage and updates

Years covered: 1985 and 2000.

Updates are planned, but on an irregular schedule.

### Documentation

The dataset is described in Coppedge and Reinecke (1990). Documentation is also provided online, along with the dataset.

## **33.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined table.

### Data formats

SPSS and Excel.

## **33.2.3 Comparability and data quality**

Not examined. See Munck and Verkuilen (2002) and Chapter 5 for a general discussion of democracy indices.

## **33.2.4 Relevance to ESS users**

The fact that data only exists for two years and that update is uncertain, is a disadvantage for this dataset. So is the lack of documentation of sources. Other indices of democracy are more consistent on these areas (e.g., Polity IV, ACLP, Freedom in the World), and the dataset is therefore perhaps not very relevant to ESS users.

## Sources

### Publications

Coppedge, Michael, and Wolfgang Reinicke. 1990. "Measuring polyarchy". *Studies in Comparative International Development* 25 (1): 51-72.

Coppedge, Michael. 1997. "Modernization and thresholds of democracy: evidence for a common path and process". In *Inequality, Democracy, and Economic Development*, ed. Manus Midlarsky. New York: Cambridge University Press.

Munck, Gerardo L., and Jay Verkuilen. 2002. "Conceptualizing and measuring democracy: evaluating alternative indices". *Comparative Political Studies* 35 (February): 5-34.

### Data download

Polyarchy and Contestation Scales:

<http://www.nd.edu/~mcoppedg/crd/datacrd.htm>

### Appendices

1. List of countries
2. List of variables

### Author of documentation

Data source documented by Arnesen.

## 34. Polyarchy Dataset (Vanhanen)

### 34.1 General information

#### Research project

An earlier version of what is now called the Polyarchy Dataset was produced by Tatu Vanhanen in the early 1970s. The dataset contains an index of democracy, which has been used by Vanhanen in several studies that seek to provide a theoretical explanation for the emergence of democratic regimes (e.g., Vanhanen 1984, 1997, 2003).

The index is usually named the Vanhanen index after its author, but was given the name Polyarchy when the dataset was first made public in electronic form (Wilhelmsen 2006: 35). The dataset is maintained by the International Peace Research Institute (PRIO) in Oslo, Norway.

#### Datasets

Polyarchy Dataset

#### Contact details and website

International Peace Research Institute, Oslo (PRIO)

Email: [info@prio.no](mailto:info@prio.no) or [hs@prio.no](mailto:hs@prio.no)

Website: [http://www.prio.no/page/Project\\_detail//9244/42472.html](http://www.prio.no/page/Project_detail//9244/42472.html)

## 34.2 Polyarchy Dataset

### 34.2.1 Contents

#### Data types and sources

Composite index based on election data.

#### Topics

The dataset contains three variables: a democracy index and the two component variables used to construct the index. The index takes Dahl's (1971) discussion of democracy (or polyarchy, hence the index's name) as its point of departure, and attempts to measure democracy with two variables: competition and participation (Vanhanen 2000: 253). Both variables are calculated using election data, and the democracy index is estimated by combining the two.

### Geographical coverage

The dataset covers 191 countries, including some historical political entities. All ESS countries are covered by the source. See Appendix C.34 for list of countries.

### Time coverage and updates

Years covered: 1810-2000.<sup>141</sup>

Frequency of updates not stated.

### Documentation

The background for the dataset and the computation of the variables are described in detail in a manuscript by Vanhanen available for download online. A revised version of the manuscript has been published in *Journal of Peace Research* (Vanhanen 2000).

## **34.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined table.

### Data formats

Excel, ASCII, Stata and SPSS.

## **34.2.3 Comparability and data quality**

All attempts to measure the degree of democracy quantitatively are contested, and Vanhanen's index has been subject to much criticism. The conceptualisation of democracy has been criticised for relying on a far too narrow understanding of the concept, and the two variables used to measure participation and competition are by many scholars considered to be, at best, poor approximations of the underlying concepts. A strength of the Polyarchy Dataset, compared with other indices of democracy, is that it relies on objective and easily available data. However, the

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<sup>141</sup> Years covered in the official version. An unofficial version used in Wilhelmssen (2006) contains data for the period 1810-2002. This dataset is also available for download from PRIO's website.

contrast between subjective and objective indicators should not be overstated, since the selection and operationalisation of the indicators are shaped by subjective judgements.

See Hadenius and Teorell (2005), Munck and Verkuilen (2002) and Chapter 5 of this report for a detailed discussion of the comparability and quality of democracy indices in general.

#### 34.2.4 Relevance to ESS users

The Polyarchy Dataset may be of relevance to ESS users who wish to incorporate a measure for regime type in their analyses. However, the way the dataset measures democracy has been much criticised, and users may find other democracy indices more appropriate.

### Sources

#### Publications

Dahl, Robert A. 1971. *Polyarchy: Participation and Opposition*. New Haven and London: Yale University Press.

Hadenius, Axel, and Jan Teorell. 2005. "Assessing alternative indices of democracy". C&M Political Concepts Working Papers 6, IPSA (August).

[http://www.concepts-methods.org/papers\\_list.php?id\\_categoria=1&titulo=Political%20Concepts](http://www.concepts-methods.org/papers_list.php?id_categoria=1&titulo=Political%20Concepts) (5 June 2007).

Munck, Gerardo L., and Jay Verkuilen. 2002. "Conceptualizing and measuring democracy: evaluating alternative indices". *Comparative Political Studies* 35 (February): 5-34.

Vanhanen, Tatu. 1984. *The Emergence of Democracy: A Comparative Study of 119 States, 1850-1979*. Commentationes Scientiarum Socialium No. 24. Helsinki: Finnish Society of Sciences and Letters.

Vanhanen, Tatu. 1997. *Prospects of Democracy: A Study of 172 Countries*. London: Routledge.

Vanhanen, Tatu. 2000. "A new dataset for measuring democracy, 1810-1998". *Journal of Peace Research* 37 (2): 251-265.

Vanhanen, Tatu. 2003. *Democratization: A Comparative Analysis of 170 Countries*. London: Routledge.

Wilhelmsen, Lars. 2006. *A Democratic Peace Revisited: Measuring Democracy in International Relations*. Master's thesis. University of Oslo.

<http://www.prio.no/page/cscw/datasets/9649/47890.html>

#### Data download

Polyarchy Dataset:

[http://www.prio.no/page/Project\\_detail//9244/42504.html](http://www.prio.no/page/Project_detail//9244/42504.html)

Polyarchy Dataset used in Wilhelmsen (2006):

<http://www.prio.no/page/csw/datasets/9649/47893.html>

Appendix

1. List of countries

Author of documentation

Data source documented by Rydland.

## 35. Psephos (Adam Carr's Election Archive)

### 35.1 General information

#### Research project

The Psephos election archive is maintained by Australian journalist Adam Carr, who created the archive in 1985 on his own initiative.

#### Dataset

Psephos

#### Contact details and website

Adam Carr

Email: [Psephos2006@adam-carr.net](mailto:Psephos2006@adam-carr.net)

Website: <http://psephos.adam-carr.net/>

### 35.2 Psephos

#### 35.2.1 Contents

##### Data types and sources

Election data.

##### Topics

Most datasets cover eligible voters, votes cast, invalid votes and valid votes. Some datasets also cover seat distributions and changes to such distributions. However, as sources vary, so do also the level of detail of the data. Psephos contains data on legislative elections, presidential elections and gubernatorial elections.

##### Geographical coverage

The database covers 175 countries and provides data as national summaries and frequently on districts level. In the case of many smaller countries, Psephos is the only online source for electoral data (Singer 2004). All ESS countries are covered by the source. See Appendix C.35 for a list of countries.

### Time coverage and updates

The archive contains data from the 1990s to the present. Time coverage varies according to country. For Australia the archive covers all elections since 1901. The database is updated continuously.

### Documentation

Sources and party information are usually available, but data are otherwise not documented.

## **35.2.2 Accessibility**

### Access conditions and costs

Available free of charge

### Access procedures

Predefined tables. The site is organised alphabetically by country and each country has an introductory page.

### Data formats

On-screen tables.

## **35.2.3 Comparability and data quality**

The archive provides a varying coverage of different countries both regarding elections and the scope of the coverage. Some elections are presented by a national summary only, while others contain information on votes by region. Sources vary from national election authorities to newspapers.

## **35.2.4 Relevance to ESS users**

The main strength of the Psephos archive is the large number of countries and elections it covers. The dissemination of constituency data is, however, uneven. Many of the election results are only available as aggregated country-level results. The relevance to ESS users therefore depends on the aggregation level.

## Sources

### Publications

Singer, Matthew M. 2004. *District Level Electoral Data on the Internet*. [http://www.duke.edu/~mms16/Other\\_Main\\_Sources\\_of\\_Constituency\\_Level\\_Data.html](http://www.duke.edu/~mms16/Other_Main_Sources_of_Constituency_Level_Data.html) (4 June 2007).

### Data download

Psephos:

<http://psephos.adam-carr.net/>

### Appendix

1. List of countries

### Author of documentation

Data source documented by Østensen.

## 36. Quality of Government (La Porta et al.)

### 36.1 General information

#### Research project

The dataset was compiled by Rafael La Porta and associates and contains data on various aspects of government performance. The dataset was used in a study that examined the determinants of the quality of governments in various countries. The results of the study were published in La Porta et al. (1999).

#### Dataset

Quality of Government Data

#### Contact details and website

Rafael La Porta

Tuck School of Business at Dartmouth

Email: [rafael.laporta@dartmouth.edu](mailto:rafael.laporta@dartmouth.edu)

Website: <http://mba.tuck.dartmouth.edu/pages/faculty/rafael.laporta/publications.html>

### 36.2 Quality of Government Data

#### 36.2.1 Contents

##### Data types and sources

Expert-coded data and data from national accounts and official registers.

##### Topics

The dataset contains 29 variables, mainly reproduced from other sources. The variables measure various aspects of government performance, such as interference in the private sector, government efficiency, output of public goods, the size of the public sector, political freedom, the legal system and economic development. See Appendix C.36 for list of variables.

##### Geographical coverage

The dataset contains data for 223 countries and territories, but the number of observations varies between variables. All ESS countries are covered by the source. See Appendix C.36 for list of countries.

### Time coverage and updates

The dataset contains only one entry for each country on each variable. Some of the variables present average values for several years; others describe aspects that are seen as more or less permanent features of a country. No updates planned.

### Documentation

The variables are described in brief in La Porta et al. (1999), but users must refer to the original publications to learn how they are collected and coded.

## **36.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined table.

### Data formats

Excel.

## **36.2.3 Comparability and data quality**

Not examined.

## **36.2.4 Relevance to ESS users**

As most of the variables are reproduced from other sources, ESS users may prefer to go directly to the original sources, especially since the documentation of the dataset is insufficient. Still, on some variables it expands on the original datasets, and some users may therefore find the dataset useful.

## **Sources**

### Publications

La Porta, Rafael, Florencio Lopez-deSilanes, Andrei Shleifer and Robert Vishny. 1999. "The quality of government". *Journal of Law, Economics and Organization* 15 (1): 222-279.

Data download

Quality of Government:

<http://mba.tuck.dartmouth.edu/pages/faculty/rafael.laporta/publications.html>

Appendices

1. List of countries
2. List of variables

Author of documentation

Data source documented by Rydland.

## 37. Quality of Government Datasets (QoG Institute)

### 37.1 General information

#### Research project

The Quality of Government Datasets are compiled by researchers at the Quality of Government (QoG) Institute. The institute was established in 2004 by Sören Holmberg and Bo Rothstein at the Department of Political Science at Göteborg University, and aims at conducting and promoting research on the causes, consequences and nature of good governance or the quality of government. One of the institute's main initiatives is the compilation of two datasets with a large number of variables that seek to measure various aspects of government. The QoG Cross-Section Dataset contains data for 2002 or the closest year thereto, while the QoG Cross-Section Time-Series Dataset spans from 1946 through 2006.

#### Datasets

1. QoG Cross-Section Dataset
2. QoG Cross-Section Time-Series Dataset

#### Contact details and website

Quality of Government Institute  
Göteborg University  
Email: [jan.teorell@svet.lu.se](mailto:jan.teorell@svet.lu.se)  
Website: <http://www.qog.pol.gu.se/>

## 37.2 Quality of Government Datasets

### 37.2.1 Contents

#### Data types and sources

The datasets contain a wide range of different types of data: expert-coded indicators and classifications, various demographic measures, national accounts data and aggregated individual-level survey data. The data are compiled from numerous freely available and well-known data sources, including datasets produced by independent research projects, international research initiatives, NGOs and inter-governmental organisations.

### Topics

The QoG Cross-Section Dataset currently (June 2007) contains 548 variables, while the QoG Cross-Section Time-Series Dataset contains 323 variables. The institute divides the data in both into three types or topics (see Appendix C.37 for list of variables):

1. WII (What It Is): variables related to the core of the institute's research area (e.g., corruption, bureaucratic quality, human rights and democracy).
2. HTG (How To Get It): variables believed to promote the quality of government (e.g., electoral rules, political institutions, legal and colonial origin, religion and social fractionalisation).
3. WYG (What You Get): variables pertaining to some of the possible consequences of government quality (e.g., economic and human development, international and domestic peace, environmental sustainability, gender equality, and satisfied and trusting citizens).

### Geographical coverage

The datasets cover mainly the same countries, but the time-series version contains some additional cases (see Appendix C.37 for list of countries). All ESS countries are covered by the source. The coverage of specific variables is often more limited.

- Cross-Section Dataset: All countries in the world recognised by the United Nations in 2002, plus Taiwan (192 countries in all).
- Cross-Section Time-Series Dataset: All countries in the world recognised by the United Nations in 2002, plus Taiwan and 13 historical countries that no longer exist.

### Time coverage and updates

- Cross-Section Dataset: Data for 2002 or the closest year thereto
- Cross-Section Time-Series Dataset: 1946-2006
- The datasets will be updated continuously

### Documentation

The datasets are described in an extensive codebook, which is freely available for download. The codebook is sufficiently detailed for users who wish to determine the datasets' potential, but in most cases it is necessary to consult the original sources to get detailed knowledge on primary sources and coding practices. See Ledet (2006) for an independent review of the datasets.

### **37.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined table. The datasets can be downloaded in two separate files. It is also possible to examine the data through the interactive map application World Freedom Atlas.

#### Data formats

Stata, SPSS and CSV.

### **37.2.3 Comparability and data quality**

Most of the data in the Quality of Government datasets are widely used in academic research. This can be seen as an indication that the data quality is generally satisfactory, though extensive usage does not guarantee validity and reliability. A major strength of the datasets is that they often provide several measures of the same concept, allowing users to choose between several indicators and to test whether different ways of measuring a phenomenon has any effect on the analyses. See Chapter 5 of this report for a more detailed discussion of the comparability of political indicators.

### **37.2.4 Relevance to ESS users**

The datasets contain many of the most widely used political indicators, and should therefore be highly relevant to ESS users who are interested in such measures. The datasets cover all countries participating in the ESS and are updated continuously, ensuring that they will remain a valuable source of information in the future.

## **Sources**

#### Publications

Ledet, Richard. 2006. "Dataset review: the Quality of Government Institute's Cross-Sectional and Cross-Sectional Time Series Dataset". *APSA-CP Newsletter* 17 (Summer).

#### Data download

Quality of Government Datasets:

<http://www.qog.pol.gu.se/>

Appendices

1. List of countries
2. List of variables: Cross-Section Dataset
3. List of variables: Cross-Section Time-Series Dataset

Author of documentation

Data source documented by Rydland.

## 38. Reporters sans frontières

### 38.1 General information

#### Institution

Since its start in 1985, the Paris-based NGO *Reporters sans frontières* (Reporters Without Borders, RSF) has worked to uncover and deter violations of press freedom around the world. Among its many activities, the organisation produces an index that measures the state of press freedom in the world. The index reflects the degree of freedom journalists and news organisations enjoy in each country, and the efforts made by the state to recognise and ensure respect for this freedom.

#### Databases

Worldwide Press Freedom Index

#### Contact details and website

Reporters sans frontières

Email: [rsf@rsf.org](mailto:rsf@rsf.org)

Website: <http://www.rsf.org/>

### 38.2 Worldwide Press Freedom Index

#### 38.2.1 Contents

##### Data types and sources

Index based on surveys of county experts. The data are collected through a questionnaire sent to members of *Reporters sans frontières*, partners, researchers and human-rights activists around the world.

##### Topics

The topic is freedom of the press in countries around the world. Issues that are considered are to what degree journalists in a country are hindered in reporting freely, that is, are not hindered physically (murder, threats etc.), technically (jamming of broadcast) or institutionally (state monopoly, undue restrictions to establish media companies, etc.), by the state or other groupings in the country.

### Geographical coverage

The index is global in scope, covering 168 countries. Some countries are left out because of lack of reliable data. See Appendix C.38 for list of countries.

ESS country not covered: Luxembourg.

### Time coverage and updates

Years covered: 2002 to present.

Updated annually.

### Documentation

Other than a general list of sources and a checklist of questions the analysts consider when analysing a country's press freedom, there is no documentation available. The questionnaire is presented on the website. It is not stated how the countries get their score on the index, or what the highest value on the index is.

## **38.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

Predefined tables. Data for each year stored in separate tables.

### Data formats

On-screen tables. Download available in PDF format.

## **38.2.3 Comparability and data quality**

The data quality has not been examined in detail, but some issues should be noted. The documentation of the data is insufficient, making it difficult for external researchers to assess the index. Another drawback is that the scale range is not stated. See J. Becker (2003) and L. Becker, Vlad and Nusser (2007) for evaluations.

### **38.2.4 Relevance to ESS users**

The index is of relevance to ESS users interested in measures of press freedom. However, because of insufficient documentation and a relatively short time span, users may find other indices, such as Freedom House's Freedom of the Press, more appropriate.

## **Sources**

### Publications

Becker, John. 2003. "Keeping track of press freedom". *European Journal of Communication* 18 (1): 107-112.

Becker, Lee B., Tudor Vlad and Nancy Nusser. 2007. "An evaluation of press freedom indicators". *International Communication Gazette* 69 (1): 5-28.

### Data download

Worldwide Press Freedom Index:

[http://www.rsf.org/rubrique.php?id\\_rubrique=639](http://www.rsf.org/rubrique.php?id_rubrique=639)

### Appendix

1. List of countries

### Author of documentation

Data source documented by Arnesen.

## 39. Terrorism in Western Europe: Events Data

### 39.1 General information

#### Research project

The dataset Terrorism in Western Europe: Events Data, collected by Jan Oskar Engene (University of Bergen), records internal terrorist activities in western Europe after 1950. The dataset was collected for the purpose of analysing patterns of domestic terrorism in western Europe. Analyses of the dataset have been published in Engene (2004).

#### Dataset

Terrorism in Western Europe: Events Data (TWEED)

#### Contact details and website

Jan Oskar Engene  
University of Bergen, Norway  
Email: [jan.engene@isp.uib.no](mailto:jan.engene@isp.uib.no)  
Website: <http://www.uib.no/people/sspje/tweed.htm>

### 39.2 TWEED

#### 39.2.1 Contents

##### Data types and sources

Events data coded by Engene based on *Keesing's Record of World Events*, a source that collects news reports on a daily basis from all over the world.

##### Topics

The dataset records terrorist-initiated events in western Europe after 1950. The dataset is limited to internal terrorism, that is, acts of terrorism initiated by people and groups from western Europe. For each event, the dataset contains information on the following: date of event; name of country where the event took place; name of acting group or organisation; number of people killed or injured; type of violent means employed; government reaction; regional origins; ideological profile; and agent's attitude towards the state. The dataset consists of 53 variables, listed in Appendix C.39.

### Geographical coverage

The dataset covers 18 countries in western Europe. See Appendix C.39 for complete list.

ESS countries not covered: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Israel, Latvia, Poland, Romania, Russia, Slovakia, Slovenia, Turkey and Ukraine.

### Time coverage and updates

Years covered: 1950-2004.

Frequency of updates not stated.

### Documentation

The dataset is described in Engene (2007). The coding rules are explained in a fair amount of detail in a downloadable codebook (Engene 2006).

## **39.2.2 Accessibility**

### Access conditions and costs

Available free of charge. The dataset can be used for educational and research purposes by students and researchers, provided that proper acknowledgement and references are given.

### Access procedures

Predefined table.

### Data formats

SPSS.

## **39.2.3 Comparability and data quality**

Not examined.

## **39.2.4 Relevance to ESS users**

Terrorism is probably not among the most common research interests of ESS users, but some may find information on the frequency of terrorist attacks useful. According Blomberg and Hess (2005: 7), TWEED “is one of the richest and long-standing data sets available”. Yet a drawback with the dataset is that it only records acts of internal terrorism, and it does not cover all ESS

countries. Users may therefore want to supplement the TWEED data with information from other sources, such as the MIPT Terrorism Knowledge Base and International Terrorism: Attributes of Terrorist Events (ITERATE; see Mickolus 2002 for details). See also Eck (2005) for an overview of datasets with conflict data.

## Sources

### Publications

Blomberg, S. Brock, and Gregory D. Hess. 2005. "From (no) butter to guns? Understanding the economic role in transnational terrorism". Prepared for the World Bank Workshop on Security and Development, Washington D.C., 26-27 May 2005. <http://ssrn.com/abstract=904026> (4 December 2007).

Eck, Kristine. 2005. *A Beginner's Guide to Conflict Data: Finding and Using the Right Dataset*. UCDP Paper no. 1. Uppsala: Uppsala Conflict Data Program. [http://www.pcr.uu.se/publications/UCDP\\_pub/UCDP\\_paper1.pdf](http://www.pcr.uu.se/publications/UCDP_pub/UCDP_paper1.pdf) (4 December 2007).

Engene, Jan Oskar. 2006. *TWEED Code Book*. Bergen: Department of Comparative Politics, University of Bergen. <http://www.uib.no/people/sspje/tweed.htm> (4 December 2007).

Engene, Jan Oskar. 2007. "Five decades of terrorism in Europe: the TWEED dataset". *Journal of Peace research* 44 (January): 109-121.

Mickolus, Edward F. 2002. "How do we know we're winning in the war against terrorists? Issues in measurement". *Studies in Conflict and Terrorism* 25 (3): 151-160.

### Electronic resources

MIPT Terrorism Knowledge Base:  
<http://www.tkb.org/>

### Data download

Journal of Peace Research: [http://www.prio.no/page/Project\\_detail//9244/41427.html](http://www.prio.no/page/Project_detail//9244/41427.html)  
TWEED project website: <http://www.uib.no/people/sspje/tweed.htm>

### Appendices

1. List of countries
2. List of variables

### Author of documentation

Data source documented by Rydland.

## 40. Transparency International

### 40.1 General information

#### Institution

Transparency International (TI) is a non-governmental organisation addressing corruption. The organisation was established in 1993 in Berlin, Germany, and consists of national boards (independent, local organisations), the International Secretariat (coordination and knowledge management centre), and the Board of Directors (governing body). TI works to reduce corruption around the world.

#### Datasets

1. Corruption Perceptions Index

The TI CPI is the most well-known and widely used dataset from Transparency International. The composite index measures perceived corruption among public officials and politicians.

2. Global Corruption Barometer

The TI GCB is a yearly poll of the general public on perceived corruption among public officials in the respondents' home country.

3. Bribe Payers Index

Contrary to the CPI and BPI, the TI BPI evaluates the supply side of corruption – the propensity of firms from industrialised countries to bribe abroad. The first edition was published in 2002, and the second one in 2006.

Due to the short time span and low publishing frequency of the TI BPI, the index is not examined in this report.

#### Contact details and website

Transparency International

Email: [ti@transparency.org](mailto:ti@transparency.org)

Website: <http://www.transparency.org>

## 40.2 Corruption Perceptions Index

### 40.2.1 Contents

#### Data types and sources

The CPI is a composite index, a poll of polls, drawing on corruption-related data from expert and business surveys carried out by a variety of independent institutions. It reflects views from around the world, including those of experts who are living in the countries evaluated.

#### Topics

The index ranks countries in terms of the degree to which corruption is *perceived* to exist among public officials and politicians. The TI CPI focuses on corruption in the public sector and defines corruption as the abuse of public office for private gain.

#### Geographical coverage

The 2007 edition covered 180 countries. All ESS countries are covered by the source. See Appendix C.40 for list of countries.

#### Time coverage and updates

Years covered: 1995 to present.

Updated annually.

#### Documentation

The CPI 2007 draws on 14 different polls and surveys from 12 independent institutions. Some sources do not allow disclosure of the data that they contribute; other sources are publicly available. A full list of survey sources, details on questions asked and number of respondents are provided online for all of the editions of the CPI (Transparency International 2007a).

### 40.2.2 Accessibility

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined tables. Users may only download separate lists for each yearly edition, and there is no option of constructing tables on your own.

### Data formats

On-screen tables. Download available in PDF format.

#### **40.2.3 Comparability and data quality**

Transparency International urges users to employ caution when comparing scores over time (Transparency International 2007b). The index primarily provides a snapshot of the views of business people and country analysts for the current or recent years, with less focus on year-to-year trends. Year-to-year changes in a country's score can either result from a changed perception of a country's performance or from a change in the CPI's sample and methodology. The only reliable way to compare a country's score over time is to go back to individual survey sources, each of which can reflect a change in assessment. See Chapter 5 for a general discussion of corruption indices.

#### **40.2.4 Relevance to ESS users**

The index is a leading index, widely used by students of corruption, and is relevant for ESS users.

### **40.3 Global Corruption Barometer**

#### **40.3.1 Contents**

##### Data types and sources

The TI Global Corruption Barometer is a public opinion survey (i.e., a poll of the general public, not of experts).

##### Topics

The Global Corruption Barometer is a public opinion poll conducted for Transparency International by Gallup, which assesses general public attitudes towards and experience of corruption in selected countries around the world.

##### Geographical coverage

The 2006 edition included 62 countries, up from 45 countries in the start in 2003. There is some lack of consistency with regards to which countries are included in the survey each year. Since the

first edition in 2003, some countries have been added, omitted and added back to the list. During the four years the survey has been made, 80 countries have been surveyed on at least one occasion, but only 33 countries have been listed on the barometer all four years.

#### Time coverage and updates

First data are from 2003, and the barometer has been published annually since then.

#### Documentation

A full list of survey sources, details on questions asked and number of respondents are provided online for all of the editions of the GCB (Transparency International 2007c).

### **40.3.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined tables. Users may only download separate lists for each yearly edition, and there is no option of constructing tables on your own.

#### Data formats

On-screen tables. Download available in PDF format.

### **40.3.3 Comparability and data quality**

Not examined in detail. In contrast to the CPI, the Global Corruption Barometer is comparable from year to year.

### **40.3.4 Relevance to ESS users**

The GCB is the only worldwide public opinion survey on perception and experience with public corruption. Many European countries are taking part in the survey, though not all. It is not as widely used as the Corruption Perception Index, but may still be relevant to ESS users.

## Sources

### Electronic resources

Transparency International. 2007a. *Corruption Perceptions Index*.  
[http://www.transparency.org/policy\\_research/surveys\\_indices/cpi](http://www.transparency.org/policy_research/surveys_indices/cpi) (12 October 2007).

Transparency International. 2007b. "Frequently Asked Questions".  
[http://www.transparency.org/policy\\_research/surveys\\_indices/cpi/2006/faq#general1](http://www.transparency.org/policy_research/surveys_indices/cpi/2006/faq#general1)  
(19 March 2007).

Transparency International. 2007c. *Global Corruption Barometer*.  
[http://www.transparency.org/policy\\_research/surveys\\_indices/gcb/2006](http://www.transparency.org/policy_research/surveys_indices/gcb/2006) (20 March 2007).

### Appendices

1. CPI: List of countries
2. GCB: List of countries (by year)

### Author of documentation

Data source documented by Arnesen.

## 41. UNESCO

### 41.1 General information

#### Institution

UNESCO is an acronym for United Nations Educational, Scientific and Cultural Organisation, a specialised agency of the United Nations founded in 1945. UNESCO was established to promote international collaboration in education, science and culture. In the early years, it emphasised the rebuilding of schools, libraries and museums that had been destroyed in Europe during the second world war. Since then, the organisation has concentrated on assisting, supporting and complementing the national efforts of member states to eliminate illiteracy and to extend free education (Encyclopædia Britannica 2006).

In 1999, the UNESCO Institute for Statistics (UIS) was established in order to reform the organisation's statistical capacities. The institute's main objectives are to gather a wide range of statistical information to help the member states analyse the efficiency and effectiveness of their programmes, and to interpret and report on the global situation with regard to education, science and technology, culture, and communication. The UIS's activities include collecting and disseminating relevant statistics, developing a conceptual and methodological framework for the collection of internationally comparable data, improving the statistical capacities of the member states, and analysing and promoting the data it collects.

#### Databases

UNESCO hosts three databases that may be of relevance to ESS users. The databases cover the same topics, but the indicators and the years covered vary. The UIS Database covers the period from 1999 onwards, while the UNESCO Database and the World Education Indicators cover the years 1970-1997.

#### Contact details and website

UNESCO

Email (requests for UIS data): [datarequests@uis.unesco.org](mailto:datarequests@uis.unesco.org)

Email (general inquiries): [information@uis.unesco.org](mailto:information@uis.unesco.org)

Website: <http://www.unesco.org>

Website (UIS): <http://www.uis.unesco.org>

## 41.2 UIS Database

### 41.2.1 Contents

#### Data types and sources

Most of the data are collected from official registers and administrative records. Some statistics are based on censuses and household surveys.

#### Topics

The database contains statistical information about four topics (see Appendix C.41 for a list of tables and variables):

1. *Education*. 754 variables and 32 tables. Includes information on, for example, education systems, enrolment, teaching staff, graduates, internationally mobile students and finance indicators.
2. *Literacy*. Two tables. Information on youth and adult literacy rates by gender.
3. *Science and technology*. One table on research and development.
4. *Culture and communication*. Eight tables. Information on book production, films and cinemas, libraries and newspapers.

#### Geographical coverage

The database covers 207 countries, but data are missing for a number of countries on many indicators. All ESS countries are covered by the source. See Appendix C.41 for a list of countries.

#### Time coverage and updates

Years covered: 1999 to present.

Updated annually.

#### Documentation

Definitions and methodology for many of the indicators can be accessed through the UIS Glossary website (link provided below), or in the publication *Educational Indicators: Technical Guidelines*, available online. The documentation is rather limited, and some indicators are not documented at all.

### **41.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

The data are accessed through an interactive application using the Beyond 20/20 software. Data can be found either by browsing the four topics or by using the search function. The database is fairly easy to use.

The functionalities available to users vary by topic. The data on education can be accessed either by selecting individual variables, or through predefined tables that can be manipulated by the user; the data on culture and communication are stored as predefined tables that can be adjusted by users; the data on literacy and science and technology are stored in predefined tables that cannot be manipulated interactively.

#### Data formats

Excel, ASCII and Beyond 20/20's IVT format.

### **41.2.3 Comparability and data quality**

The quality and comparability of UNESCO's education statistics were criticised by both scholars and other international organisations during the 1990s. The organisation has worked to strengthen its statistical capacities in recent years, and the establishment of the UIS in 1999 was an important step in this effort (Behrman and Rosenzweig 1994; Cussó 2003; Heyneman 1999). Yet it is still too early to say whether the problems of data quality have been addressed adequately, and the documentation provided by UNESCO does not discuss the issue of comparability in any detail.

### **41.2.4 Relevance to ESS users**

The database contains data that are of relevance to many ESS users. However, the documentation is rather limited, and potential problems of comparability and data quality are not discussed in any detail. ESS users may therefore find education data from Eurostat or the OECD more relevant and easy to use. The main strength of data from UNESCO compared with other sources is the broad geographical coverage.

## 41.3 UNESCO Database

### 41.3.1 Contents

#### Data types and sources

Most of the data are collected from official registers and administrative records. Some statistics are based on censuses and household surveys.

#### Topics

The database contains statistics on national educational systems, teaching staff, enrolment, public expenditure on education and literacy. The data are organised in 23 tables (see Appendix C.41).

#### Geographical coverage

Most of the countries in the world.

#### Time coverage and updates

Years covered: 1970-97 (yearly data from 1980, every five years prior to that year).

The database is discontinued.

#### Documentation

No documentation is provided in the online database, but some information about indicators can be accessed through the UIS Glossary website (link provided below), or in the publication *Educational Indicators: Technical Guidelines*, available online. The documentation is rather limited, and some indicators are not documented at all.

### 41.3.2 Accessibility

#### Access conditions and costs

Available free of charge.

#### Access procedures

The database is a bit cumbersome to use, due to limited functionalities and no download options. All tables are listed on the website; the data are accessed by clicking on the table heading. To see the data you must either select a region (e.g., Africa or Europe) or a single country. It is not possible to see the data for all countries or for countries from different regions in the same table.

The functionalities are limited: you can only specify the time range and select a single region or a single country. It is not possible to combine data from different regions and different tables in the same output.

#### Data formats

On-screen tables only.

### **41.3.3 Comparability and data quality**

See Section 41.2.3.

### **41.3.4 Relevance to ESS users**

See Section 41.2.4.

## **41.4 World Education Indicators**

### **41.4.1 Contents**

#### Data types and sources

Most of the data are collected from official registers and administrative records. Some statistics are based on censuses and household surveys.

#### Topics

The database contains data on access to schooling, participation in education, efficiency of primary education, resource indicators and literacy. The data are organised in 21 tables. In addition, the database includes 14 tables from the World Education Report 2000 (see Appendix C.41).

#### Geographical coverage

Most of the countries in the world.

#### Time coverage and updates

Years covered: 1970-97 (yearly data from 1980, every five years prior to that year).

The database is discontinued.

### Documentation

Some documentation is provided online in the database, as well as on the UIS Glossary website (link provided below), and in the publication *Educational Indicators: Technical Guidelines*. The documentation is rather limited.

#### **41.4.2 Accessibility**

##### Access conditions and costs

Available free of charge.

##### Access procedures

The database is a bit cumbersome to use, due to limited functionalities and no download options. All tables are listed on the website; the data are accessed by clicking on the table heading. To see the data you must either select a region (e.g., Africa or Europe) or a single country. It is not possible to see the data for all countries or for countries from different regions in the same table.

The functionalities are limited: you can only specify the time range and select a single region or a single country. It is not possible to combine data from different regions and different tables in the same output.

##### Data formats

Most of the data available as on-screen tables only. The tables published in the World Education Report 2000 can be downloaded in Excel format.

#### **41.4.3 Comparability and data quality**

See Section 41.2.3.

#### **41.4.4 Relevance to ESS users**

See Section 41.2.4.

## Sources

### Publications

Behrman, Jere R. and Mark R. Rosenzweig. 1994. "Caveat emptor: cross-country data on education and the labor force". *Journal of Development Economics* 44 (June): 147-171.

Cussó, Roser. 2003. "Les statistiques de l'éducation de l'UNESCO: restructuration et changement politique". *Éducation et Sociétés* 2 (12): 57-72.

Encyclopædia Britannica. 2006. "UNESCO". Retrieved 1 November 2006, from *Encyclopædia Britannica Online*: <http://search.eb.com/eb/article-9074309>

Heyneman, Stephen P. 1999. "The sad story of UNESCO's education statistics". *International Journal of Educational Development* 19 (January): 65-74.

### Electronic resources

UIS Glossary:

<http://www.uis.unesco.org/glossary/index.aspx?list=all&lang=en>

### Data download

UIS Database:

<http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx>

UNESCO Database:

<http://www.uis.unesco.org/pagesen/ed.htm>

World Education Indicators:

<http://www.uis.unesco.org/en/stats/statistics/indicators/indic0.htm>

### Appendices

1. UIS Database: List of countries
2. UIS Database: List of variables and tables
3. UNESCO Database: List of tables
4. World Education Indicators: List of tables

### Author of documentation

Data source documented by Rydland.

## 42. UNICEF

### 42.1 General information

#### Institution

UNICEF is an acronym for United Nations Children's Fund, formerly (1946–53) United Nations International Children's Emergency Fund. The organisation is a special programme of the United Nations, established in 1946 to provide relief to children in countries devastated during the second world war. After 1950, the fund directed its efforts towards general programmes devoted to aiding national efforts to improve the health, nutrition, education and general welfare of children (Encyclopædia Britannica 2006).

#### Databases

1. The State of the World's Children

Including economic and social data from 195 countries and territories, *The State of the World's Children* is the flagship publication of UNICEF. On the website, users can access data derived from this publication.

2. TransMONEE

The TransMONEE database – a compilation of data on trends in 27 countries in transition in the central and eastern Europe – is maintained by the UNICEF Innocenti Centre in Florence. Annual publications of the regional monitoring report of the MONEE project focus on key issues affecting women, children and youth in this region.

#### Contact details and website

UNICEF

Email (Innocenti Research Centre): [florence@unicef.org](mailto:florence@unicef.org)

Website: <http://www.unicef.org/>

Website (Innocenti Research Centre): <http://www.unicef-irc.org/>

## 42.2 State of the World's Children

### 42.2.1 Contents

#### Data types and sources

Data from official registers, administrative records and surveys. The data are collected from the member states, complemented by information obtained from other sources, including the ongoing collaboration with other relevant United Nations agencies.

#### Topics

The online database contains data from the 2005 and 2006 editions of the publication *The State of the World's Children*, while the country profiles contain data from the latest edition of the publication. The data are organised in the ten categories (see Appendix C.42 for complete list of indicators):

1. *Basic indicators*. Indicators include: mortality rates, population, number of births, GNI per capita, life expectancy, literacy rate, primary school enrolment and household income.
2. *Nutrition*. Indicators include: low birth weight, underweight, breastfeeding and stunting.
3. *Health*. Indicators include: drinking water, sanitation facilities, immunisation, diarrhoea treatment and malaria
4. *HIV/AIDS*. Indicators on prevalence, knowledge, behaviour and orphans.
5. *Education*. Indicators include: literacy rates, phones, internet users, school enrolment, school attendance and school entrants.
6. *Demographics*. Indicators include: population under 5 and 18, population growth rate, crude death rate, crude birth rate, life expectancy, total fertility rate and urban population.
7. *Economics*. Indicators include: GNI per capita, GDP growth rate, inflation rate, poverty measures, central government expenditures, ODA and debt service.
8. *Women*. Indicators include: life expectancy, literacy rate, school enrolment, contraceptive prevalence, antenatal care, skilled attendant at delivery and maternal mortality.
9. *Child protection*. Indicators include: child labour, child marriage, birth registration, and female genital mutilation/cutting.
10. *Rate of progress*. Indicators include: under-5 mortality rate at different points in time, GDP growth rates and total fertility rates at different points in time.

### Geographical coverage

The database is global in scope, covering 195 countries and territories. All ESS countries are covered by the source. See Appendix C.42 for list of countries.

### Time coverage and updates

The time coverage is rather limited, generally covering only the more recent years. A limited number of indicators have a longer time scope, with some data available for selected years over the past 35 years.<sup>142</sup>

### Documentation

Definitions of the indicators are available in the online database.

## **42.2.2 Accessibility**

### Access conditions and costs

Available free of charge.

### Access procedures

The database is easy to use. Users go through a 3-step procedure, where they first select territories and thereafter indicators. It is not possible to specify time period, and it seems that when data exist for more than one year, they are pooled together into one value. Specific countries or pre-defined functional or geographical regions such as “industrial regions” or South Asia may be chosen as well.

### Data formats

On-screen tables. Download available in Excel format.

## **42.2.3 Comparability and data quality**

Not examined, but see UNICEF (1998).

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<sup>142</sup> For a dataset containing a longer time series on one of the main variables in UNICEF’s databases, the infant mortality rate, see Abouharb and Kimball (2007).

#### **42.2.4 Relevance to ESS users**

UNICEF appears to be a good source for some child-related statistics. A main strength is its broad geographical scope, covering most or all the countries in the world. The documentation is good for some indicators, more limited for others. A weakness is the relatively limited time scope.

### **42.3 TransMONEE Database**

#### **42.3.1 Contents**

##### Data types and sources

Data based on official registers, administrative records, national accounts and surveys. Most of the data are collected directly from national statistical offices using a standardised template. Additional data are obtained from other international organisations or are calculated by UNICEF IRC.

##### Topics

The 2006 version of the database contains 146 economic and social indicators divided into ten different topics.

1. Population
2. Natality
3. Child and maternal mortality
4. Life expectancy and adult mortality
5. Family formation
6. Health
7. Education
8. Child protection
9. Crime indicators
10. Economic indicators

##### Geographical coverage

The database covers countries in central and eastern Europe.

##### Time coverage and updates

First data are from 1989. The database is updated yearly.

### Documentation

Some documentation is provided in the database under the Glossary-heading. Definitions of the indicators are available in the online database, as well as specific notes for the queried data.

#### **42.3.2 Accessibility**

##### Access conditions and costs

Available free of charge.

##### Access procedures

Predefined table.

##### Data formats

Excel.

#### **42.3.3 Comparability and data quality**

As with any cross-national statistical database, concepts and measures may differ widely across the region. Therefore, UNICEF strongly encourages users to consult the notes on specific data, but the issue of comparability is not addressed in detail.

#### **42.3.4 Relevance to ESS users**

Other databases may provide data on the same topics as the TransMONEE database. The geographical coverage of this database may be of interest to many users, since its focus lies on central and eastern European countries.

## **Sources**

### Publications

Abouharb, M. Rodwan, and Anessa L. Kimball. 2007. "A new dataset on infant mortality rates, 1816-2002". *Journal of Peace Research* 44 (November): 743-754. [Dataset: <http://www.prio.no/jpr/datasets.asp>.]

Encyclopædia Britannica. 2006. "UNICEF". Retrieved 2 November 2006, from *Encyclopædia Britannica Online*: <http://search.eb.com/eb/article-9074304>

UNICEF. 1998. *Indicators for Global Monitoring of Child Rights*. Summary report and background papers from international meeting sponsored by UNICEF, Geneva, Switzerland, 9-12 February 1998. New York: Division of Evaluation, Policy and Planning, UNICEF.

<http://www.childinfo.org/CRind/crcsumrpt.pdf>

Data download

State of the World's Children:

[http://www.unicef.org/statistics/index\\_24287.html](http://www.unicef.org/statistics/index_24287.html)

TransMONEE:

<http://www.unicef-icdc.org/research/>

Appendices

1. List of countries
2. List of variables

Author of documentation

Data source documented by Arnesen.

## 43. Union Centralisation Among Advanced Industrial Societies

### 43.1 General information

#### Research project.

The dataset was compiled by Miriam Golden, Michael Wallerstein and Peter Lange, and contains data on unions, employers, industrial relations and collective bargaining in 20 OECD countries. The dataset has been used by the authors in a number of studies of union relations.

#### Dataset

Union Centralisation Among Advanced Industrial Societies

#### Contact details and website

Miriam Golden  
Department of Political Science  
University of California, Los Angeles  
Email: [golden@ucla.edu](mailto:golden@ucla.edu)  
Website: <http://www.shelley.polisci.ucla.edu/data/>

## 43.2 Union Centralisation Among Advanced Industrial Societies

### 43.2.1 Contents

#### Data types and sources

Expert-coded data based on sources from national statistical offices, international organisations and other research projects.

#### Topics

The dataset consists of 76 variables on various aspects of labour relations in industrially advanced societies: unions, employers, industrial relations and collective bargaining. See Appendix C.43 for list of variables.

#### Geographical coverage

The updated version of the dataset covers 20 OECD countries. See Appendix C.43 for list of countries.

ESS countries not covered: Bulgaria, Cyprus, Czech Republic, Estonia, Greece, Hungary, Iceland, Israel, Latvia, Luxembourg, Poland, Romania, Russia, Slovakia, Slovenia, Turkey and Ukraine.

#### Time coverage and updates

The dataset provides annual data and covers the years 1950-2000, and was last updated in 2006. There will be no further updates of the dataset.

#### Documentation

A codebook with descriptions of how the variables were constructed is provided. The sources the authors have received data from are also listed in the codebook.

### **43.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined table.

#### Data formats

Stata.

### **43.2.3 Comparability and data quality**

Not examined.

### **43.2.4 Relevance to ESS users**

Although the dataset will not be further updated, it covers historic data of 50 years, and might be useful for ESS users interested in the topic.

## Sources

### Data download

Union Centralisation Among Advanced Industrial Societies  
<http://www.shelley.polisci.ucla.edu/>

### Appendices

1. List of countries
2. List of variables

### Author of documentation

Data source documented by Arnesen.

## 44. United Nations Economic Commission for Europe

### 44.1 General information

#### Institution

The United Nations Economic Commission for Europe (UNECE) was established in 1947 to encourage economic cooperation among its member states. The organisation provides a forum for communication among states; brokers international legal instruments addressing trade, transport and the environment; and supplies statistics and economic and environmental analysis. It is one of five regional commissions under the administrative direction of United Nations headquarters. As of September 2006, it has 56 member states. In addition to European countries, it includes the United States, Canada, Israel and the Central Asian republics.

#### Databases

The UNECE maintains four online databases, listed below. Due to overlapping data or little relevance to ESS users, only the first database is examined in detail here.

1. UNECE Statistical Database

The main, general statistical database maintained by the UNECE. It provides detailed statistical information about macroeconomics and gender and social statistics on countries in Europe, North America and Central Asia.

2. Trends in Europe and North America

A yearly publication with statistical information on the member countries of the UNECE.

3. Human Settlements Database

Data on housing and building.

4. Gas Centre Database

Information on most aspects of interest for the actors of market-oriented gas industries and economies in transition.

### Contact details and website

United Nations Economic Commission for Europe

Email: [info.ece@unece.org](mailto:info.ece@unece.org)

Website: <http://www.unece.org/>

## **44.2 UNECE Statistical Database**

### **44.2.1. Content**

#### Data types and sources

Most of the data are based on official registers, national accounts and surveys, collected from national statistical offices and international sources.

#### Topics

In the database there are 14 subtopics under the two subject areas: macroeconomic statistics and gender and social statistics (see Appendix C.44 for list of variables):

1. Economic statistics
  - a. Overview tables
  - b. National accounts
  - c. Labour force
  - d. Price indices and interest rates
  - e. Industrial production and wages
  - f. External economic relations
2. Gender and social statistics
  - a. Gender country profiles
  - b. Population
  - c. Families and households
  - d. Work and the economy
  - e. Education
  - f. Public life and decision-making
  - g. Health
  - h. Crime and violence

#### Geographical coverage

All the 56 member countries are covered, but to varying degrees. All ESS countries are covered by the source. See Appendix C.44 for list of countries.

### Time coverage and updates

Most series in the UNECE Statistical Database are available on an annual – and sometimes also quarterly and monthly – basis from 1990 onwards. In some cases data are also available for selected years from 1980.

### Documentation

For each subtopic, metadata is easily accessible online, with information about last updates etc., as well as footnotes about special circumstances in specific countries or time periods. UNECE puts emphasis on metadata as a vital component of any statistical system, and runs a task force, which under governance of the Conference of European Statisticians organises information about statistical metadata into a *Common Metadata Framework* (published online).

## **44.2.2 Accessibility**

### Access conditions and costs

Available free of charge. No registration is needed, but is offered as an option for users who want to store their searches and retrieve data later.

### Access procedures

The database is fairly easy to use. By browsing the site, the user will find lists of topics and subtopics, and may download data for selected time periods and countries. There is no search function, nor an overview of which variables are actually included in each subtopic. Within each topic there are several tables that can be individually designed by users by selecting countries, years, measures and indicators.

### Data formats

Data formats in the database include Excel, TXT, CSV, dBase, Lotus, PC-AXIS and PRN. Data can also be viewed as on-screen tables.

## **44.2.3 Comparability and data quality**

A central aim of the UNECE Statistical Database is, according to the UNECE, to facilitate international comparisons. Data on many indicators are presented within a common framework,

in standardised tables ready for analysis. Some problems of comparability remain, however, and a standardised framework does not always imply that the data are truly comparable. Comparability across countries is not always perfect and may be affected by differences in data collection, statistical methods and definitions. The table on unemployment rates, for example, presents statistics gathered from labour force surveys and administrative records together, even though the two methods of data collection do not provide comparable data. Definitions and references to the primary sources are easily accessible online, though the documentation is not very detailed.

#### 44.2.4 Relevance to ESS users

UNECE's main advantage as a data provider is its comprehensive coverage of former central and eastern European countries, which are not covered extensively in Eurostat's and OECD's databases. ESS users may therefore find UNECE a useful complement to other sources.

## Sources

### Publications

United Nations Commission for Europe. 2006. *Trends in Europe and North America: The Statistical Pocketbook of the Economic Commission for Europe*. New York: United Nations

### Electronic resources

Common Metadata Framework:

<http://unece.org/stats/cmf/Welcome.html>

### Data download

UNECE Statistical Database:

<http://w3.unece.org/pxweb/Dialog/Default.asp>

Trends in Europe and North America:

<http://unece.org/stats/trends2005/Welcome.html>

Human Settlements Database:

<http://w3.unece.org/stat/HumanSettlements.asp>

Gas Centre Database:

<http://www.gascentre.unece.org/gchdb.htm>

### Appendices

1. UNECE Statistical Database: List of countries

2. UNECE Statistical Database: List of variables

Author of documentation

Data source documented by Arnesen.

## 45. United Nations Statistical Division

### 45.1 General information

#### Institution

One of the main functions of the United Nations Statistics Division (UNSD) is the collection, processing and dissemination of statistical information. In addition, the UNSD has a central role in coordinating the standardisation of statistical methods, classifications and definitions, e.g. for international migration, national accounts (the 1993 SNA) and poverty statistics.

#### Databases

The UNSD maintains a number of databases. The most relevant to ESS users is the United Nations Common Database (UNCDB), which provides selected series from numerous specialised international data sources for all available countries and areas.<sup>143</sup> Some of the other databases maintained by the UNSD are:

1. Commodity Trade Statistics Database (COMTRADE)

Comtrade provides commodity trade data for all available countries and areas since 1962. It currently contains almost 1.1 billion records.

2. Monthly Bulletin of Statistics Online (MBS Online)

The database presents current monthly economic statistics for most of the countries and areas of the world.

3. Demographic Yearbook system

Statistics on population size and composition, births, deaths, marriage and divorce.

4. Distat

The United Nations Disability Statistics Database. Basic statistics on human functioning and disability.

5. Good practices database

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<sup>143</sup> A new data access system, UN data, will be launched soon and in order to improve the dissemination of UNSD statistics (<http://unstats.un.org/unsd/UNdata/default.htm>, 7 September 2007). But for the time being, the UNCDB is the main access point for UNSD data.

A source of information in good practices in official statistics.

6. Joint Oil Data Initiative (JODI)

Monthly oil data for the countries reporting to UNSD.

7. Millennium Indicators Database

Indicators that measure progress towards the achievement of the Millennium Declaration development goals.

8. National Accounts Main Aggregates Database

Contains a complete and consistent set of time-series of main national accounts aggregates from 1970 onwards.

9. Population of capital cities and cities of 100,000 and more inhabitants

Population of city proper urban agglomeration.

10. Population and housing censuses: census dates

Population and housing census information.

11. Population and Vital Statistics on Internet

Quarterly report on the latest census and mid-year population, and the latest vital statistics of births, deaths and infant deaths.

12. Social Indicators

Tables with social indicators covering a wide range of subject matter fields such as education, housing, health and water.

13. Statistics and indicators on women and men

Statistics and indicators on six specific fields of concern: population, families, health, education, work, and politics and human rights.

Contact details and website

United Nations Statistics Division

Email: [statistics@un.org](mailto:statistics@un.org)

Website: <http://unstats.un.org/unsd/default.htm>

## 45.2 United Nations Common Database

### 45.2.1 Contents

#### Data types and sources

The data are based on official registers, national accounts and surveys, and are compiled from a number of international organisations and national sources.

#### Topics

The database contains more than 428 statistical series organised in 29 topics. See Appendix C.45 for detailed list of series.

1. Population composition and change (43 series)
2. Human settlements, housing, geographical distribution of population (26 series)
3. Households and families, marital status, fertility (30 series)
4. Health, health services; impairment, disabilities; nutrition (58 series)
5. Education and learning (21 series)
6. Economically active/not economically active population (11 series)
7. Socio-economic groups and social mobility (5 series)
8. Income, consumption and wealth (68 series)
9. Social security and welfare services (4 series)
10. Communication and culture (21 series)
11. Public order and safety (1 series)
12. National accounts (132 series)
13. Financial statistics (28 series)
14. Prices (10 series)
15. Agriculture, forestry and fishing (25 series)
16. Mining and quarrying (6 series)
17. Industrial production (36 series)
18. Construction (15 series)
19. Transport (11 series)
20. Energy (9 series)
21. Science and technology, intellectual property (16 series)
22. International trade (58 series)
23. International tourism (15 series)

24. Balance of payments (65 series)
25. International finance (55 series)
26. Development assistance (22 series)
27. Environment (29 series)
28. Women and men (66 series)
29. Services industries (35 series)

#### Geographical coverage

The database is in principle universal in scope with data for 279 countries and territories (including some that no longer exist), though the data coverage varies across countries. All ESS countries are covered by the source. See Appendix C.45 for list of countries.

#### Time coverage and updates

In most cases time-series are available from 1970 or 1980, with some starting around 1950. Updated regularly.

#### Documentation

The UNCDDB provides comprehensive footnotes and metadata on sources and definitions for each series. In the metadata section, the database contains definitions of 403 concepts with references. It also provides technical definitions and standards verbatim from their original sources as approved by an oversight inter-governmental body.

### **45.2.1 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

The database is intuitive and easy to use. It guides the user step by step in creating the desired table, with tips and notes, and also provides user support and a help index. The four data query modes – Basic View, Country Profiles, Advanced Data Selection and Quick Data Selection – allow the user to approach the database in different ways, depending on the area of interest and knowledge about the database. The user may also choose how the output shall be displayed.

### Data formats

Excel, CSV and on-screen tables.

#### **45.2.3 Comparability and data quality**

UNCDB presents data from all countries within a standardised framework. However, most of the data come from the statistical systems of member countries and the quality therefore depends on how well these national systems perform.

#### **45.2.4 Relevance to ESS users**

The UNSD calls its Common Database (UNCDB) the “largest and most authoritative compilation of United Nations and agency statistics ever compiled, covering economic, social, financial and development topics.” The database should therefore be a good source for contextual data at country level. It has three main strengths as a source of contextual data. First, it contains a wide range of time-series, some of which have a fairly long time scope. Second, it has a nearly universal coverage, with data for almost all countries in the world and many territories and dependencies. And third, the database contains a good system for retrieving documentation for each indicator, with references to the original data sources.

## **Sources**

### Data download

United Nations Common Database:

[http://unstats.un.org/unsd/cdb/cdb\\_help/cdb\\_quick\\_start.asp](http://unstats.un.org/unsd/cdb/cdb_help/cdb_quick_start.asp)

### Appendices

1. List of countries
2. List of data series

### Author of documentation

Data source documented by Arnesen.

## 46. World Bank

### 46.1 General information

#### Institution

The World Bank, in full the World Bank Group,<sup>144</sup> is an international organisation designed to finance projects that enhance the economic development of member states. Together with the International Monetary Fund (IMF), the bank is often referred to as a Bretton Woods institution, after the place where the conference that led to their establishment took place in 1944. The bank is affiliated with the United Nations (UN) and is a major source of financial assistance to developing countries, both through loans at preferential rates and grants (Shihata 1995: 1-16).

In addition, the World Bank provides technical assistance and policy advice, and supervises the implementation of free-market reforms. In this context, the bank considers high-quality national and international statistics to be important tools for supporting decisions and providing key information to its operational activities. The bank is therefore a major producer of country-level statistics, both for analytical purposes and in order to monitor progress – or lack of progress – in development projects. At the World Bank, statistical work is mainly carried out by the Development Data Group (DECDG) in the Development Economics Vice Presidency.

#### Database

The World Bank hosts a wide array of online databases and datasets that cover a broad range of development issues. Many of the datasets are produced by researchers associated with the World Bank for specific research projects; some of these are presented in other sections of this report (e.g., the Worldwide Governance Indicators and the Database of Political Institutions). This section examines the World Development Indicators (WDI) database, which contains data from the World Bank's premier annual compilation of data about development. For an overview of other data sources from the World Bank, see the website Development Data & Statistics (link provided below).

#### Contact details and website

World Bank

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<sup>144</sup> The World Bank Group comprises five closely associated institutions: the International Bank for Reconstruction and Development (IBRD), established 1944, 184 member countries; the International Development Association (IDA), established 1960, 165 members; the International Finance Corporation (IFC), established 1956, 178 members; the Multilateral Investment Guarantee Agency (MIGA), established 1988, 167 members; and the International Centre for Settlement of Investment Disputes (ICSID), established 1966, 143 members (World Bank 2006).

Email (general): [pic@worldbank.org](mailto:pic@worldbank.org)

Email (Development Data Group): [data@worldbank.org](mailto:data@worldbank.org)

Website: <http://www.worldbank.org/>

## 46.2 World Development Indicators

### 46.2.1 Contents

#### Data types and sources

The data in WDI Online come primarily from official sources: official registers, administrative records and national accounts. Some of the data are based on surveys, e.g. household surveys, national health surveys and labour force surveys.

#### Topics

The 2006 edition of the WDI Online contains 695 variables, organised in five main topics and 31 subtopics. The majority of the variables measure various aspects of demography, macroeconomics, government finances, poverty and the labour market, but the database also covers other topics. See Appendix C.46 for a complete list of variables. The WDI database covers the following topics and subtopics:<sup>145</sup>

1. People
  - a. Education
  - b. Health
  - c. Income
  - d. Labour
  - e. Population
2. Environment
  - a. Adjusted savings
  - b. Emissions
  - c. Energy
  - d. Land
  - e. Urbanisation
3. Economy
  - a. Balance of payments
  - b. Debt

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<sup>145</sup> The breakdown in topics and subtopics varies in different versions of the WDI publication and database. The latest version of the online database is organised differently.

- c. GFS
  - d. Money
  - e. PPP
  - f. SNA (derived)
  - g. SNA (local)
  - h. SNA (US\$)
  - i. Trade
4. States and markets
- a. Business
  - b. Defence
  - c. Finance
  - d. Infrastructure
  - e. Investment
  - f. Taxes
  - g. Technology
5. Global links
- a. Aid dependency
  - b. Financial flows
  - c. Integration
  - d. Migration
  - e. Tourism

#### Geographical coverage

WDI Online is in principal universal in scope, covering 208 countries and territories. However, data availability varies by variable and over time; the availability of data is limited for some countries. All ESS countries are covered by the source. See Appendix C.46 for list of countries.

#### Time coverage and updates

The database covers the period from 1960 to present, though the time scope may be more limited for specific indicators and some countries. Updated annually.

### Documentation

Variables are defined in notes in the online database, but the documentation is not very detailed. More general documentation is available from the websites Methodologies for Using Data and Statistical Manual (links provided below).

## **46.2.2 Accessibility**

### Access conditions and costs

Available to subscribers only. Individual subscriptions cost \$100, and are valid for one year from date of purchase. Selected variables from the database are freely available.

### Access procedures

WDI Online is organised hierarchically, and you find indicators by browsing the tree view or the alphabetical list of variables, or by using the search function. The database is easy and intuitive to use. Users can create personalised datasets by specifying countries, variables and time periods. Variables from different themes can be included in the same output.

### Data formats

Data can be downloaded in Excel and ASCII format. It is also possible to view data graphically as charts and maps.

## **46.2.3 Comparability and data quality**

WDI Online presents data from all countries within a standardised framework. However, users of the database should be aware that this does not always imply that the data are truly comparable. Most of the data come from the statistical systems of member countries and the quality therefore depends on how well these national systems perform. Especially developing countries face a number of problems in providing reliable statistics, since under-investment in national statistical systems often results in data of poor quality. The World Bank works to improve the statistical infrastructure in developing countries, but for the time being the data quality varies across countries.

#### 46.2.4 Relevance to ESS users

WDI Online contains much information that is of relevance to ESS users. However, in most cases more detailed data are available from Eurostat or the OECD. The main strength of WDI Online compared with these sources is its universal scope. It provides data for all European countries, including countries that are not regularly covered by Eurostat's and the OECD's databases.

### Sources

#### Publications

Shihata, Ibrahim F.I. 1995. *The World Bank in a Changing World: Selected Essays and Lectures*. Vol. 2. The Hague-London-Boston: Martinus Nijhoff.

#### Electronic resources

Data & Research Portal:

<http://go.worldbank.org/45B5H20NV0>

Data & Statistics Portal:

<http://go.worldbank.org/SI5SSGAVZ0>

Development Data Group (DECDG)

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20822038~menuPK:64133152~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

Statistical Manual:

<http://go.worldbank.org/Y05HP5E5S0>

Methodologies for Using Data:

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20798121~menuPK:2236139~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

#### Data download

WDI Online:

<http://devdata.worldbank.org/dataonline/>

#### Appendices

1. List of countries
2. List of variables

#### Author of documentation

Data source documented by Rydland.

## 47. World Christian Database

### 47.1 General information

#### Institution

The World Christian Database (WCD) is based on the *World Christian Encyclopedia* (Barrett, Kurian and Johnson 2001) and *World Christian Trends* (Barrett and Johnson 2001), first published in 1982 and revised in 2001. The database, which is an initiative of the Center for the Study of Global Christianity at Gordon-Conwell Theological Seminary, contains data on all major world religions and detailed information about Christian denominations. The data were initially collected to be used by religious leaders and others involved in Christian missionary efforts (Grim and Finke 2006: 4; Hsu et al. 2007: 4), but they are also widely used by journalists and scholars (e.g., Grim and Finke 2007; Warf and Vincent 2007). The database is currently published by Brill, an international academic publisher.

#### Database

World Christian Database

#### Contact details and website

Email: [brillonline@brill.nl](mailto:brillonline@brill.nl)

Website (database): <http://worldchristiandatabase.org/wcd/>

Website (publisher): <http://www.brillonline.nl>

### 47.2 World Christian Database

#### 47.2.1 Contents

##### Data types and sources

Mainly demographic data on religious groups and denominations, based on a variety of sources: statistical questionnaires returned by churches and other organisations, field surveys and interviews, various published and unpublished documents, and national censuses.

##### Topics

The database contains nearly 400 variables covering five broad topics: Christianity, demography, evangelism, religion and scripture (see Appendix C.47 for list of variables). The data that are most widely used by scholars are the estimates of the religious composition of countries and the worldwide population of particular groups.

Geographical coverage

The dataset covers 238 countries and territories. All ESS countries are covered by the source. See Appendix C.47 for list of countries.

Time coverage and updates

Years covered (religious composition data): 1900, 1970, 2000; projections for 2025 and 2050.

Updated continuously.

Documentation

Not examined, but see McClymond (2002) for a review of the *World Christian Encyclopedia* and *World Christian Trends*, and Hsu et al. (2007) for an assessment of the reliability of the data on the religious composition of countries in the World Christian Database.

**47.2.2 Accessibility**

Access conditions and costs

Subscription required. The unlimited site license costs €1.750/\$2.100 (annual subscription). A free 30-day trial period is available (institutions only).

Some of the variables (i.e., estimates of adherents to the main world religions in various countries) are included in a dataset compiled by Grim and Finke (2006), available free of charge from the ARDA website (link provided in the sources section).

Access procedures

Not examined.

Data formats

Not examined.

### 47.2.3 Comparability and data quality

Questions have been raised about the potential bias inherent in the WCD, as it was originally developed as a Christian missionary tool (Hsu et al. 2007: 4).<sup>146</sup> Nonetheless, Hsu et al. (2007) find that the data on the religious composition of countries in the database are highly correlated with other sources.

### 47.2.4 Relevance to ESS users

There are relatively few datasets available with reliable data on the religious composition of countries, and the WCD therefore fills an important gap. A drawback to many ESS users is that the subscription is fairly expensive.

## Sources

### Publications

Barrett, David B., and Todd M. Johnson. 2001. *World Christian Trends: AD30-AD 2000*. Pasadena: William Carey Library.

Barrett, David B., George T. Kurian and Todd M. Johnson. 2001. *World Christian Encyclopedia: A Comparative Survey of Churches and Religions in the Modern World*. 2 vols. Oxford: Oxford University Press.

Grim, Brian J., and Roger Finke. 2006. "International religion indexes: government regulation, government favoritism, and social regulation of religion". *Interdisciplinary Journal of Research on Religion* 2 (1): 1-40. <http://www.religjournal.com> (19 November 2007). [Dataset: <http://www.thearda.com/Archive/Files/Descriptions/INTL2003.asp> (19 November 2007).]

Grim, Brian J., and Roger Finke. 2007. "Religious persecution in cross-national context: clashing civilizations or regulated religious economies?" *American Sociological Review* 72 (August): 633-658.

Hsu, Becky, Amy Reynolds, Conrad Hackett and James Gibbon. 2007. "Estimating the religious composition of all nations: an empirical assessment". Princeton University. Unpublished manuscript, on file with the authors. Cited with permission. Earlier version available online: <http://www.princeton.edu/~bhsu/WCD%20page.htm> (9 November 2007).

McClymond, Michael J. 2002. "Making sense of the census, or, what 1.999.563.838 Christians might mean for the study of religion". *Journal of the American Academy of Religion* 70 (December): 875-890.

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<sup>146</sup> McClymond (2002: 888) notes that while the articles in the *World Christian Encyclopedia* are generally neutral, some passages have an anti-catholic and pro-Protestant orientation. The description of non-Christian religions is also prejudiced in some cases (ibid.).

Warf, Barney, and Peter Vincent. 2007. "Religious diversity across the globe: a geographic exploration". *Social and Cultural Geography* 8 (August): 597-613.

Electronic resources

ARDA (Association of Religion Data Archives):

<http://www.thearda.com/>

Appendices

1. List of countries
2. List of variables

Author of documentation

Data source documented by Rydland.

## 48. World Health Organisation

### 48.1 General information

#### Institution

The World Health Organisation (WHO) is the United Nations specialised agency for health, established in 1948. The WHO's objective is the attainment by all peoples of the highest possible level of health. The organisation is governed by 193 member states through the World Health Assembly (World Health Organisation 2007).

#### Databases

The WHO compiles and disseminates statistics on a wide range of health-related topics, made available to researchers and others in several databases and printed publications. Priority is given to information on mortality, morbidity, health status, service coverage and risk factors. The databases, including documentation, can be accessed through the WHOSIS website. This report examines the two databases that are relevant to ESS users, namely the WHOSIS and HFA-DB databases. Other databases that may be of interest include:

1. WHO Global InfoBase Online

The WHO Global InfoBase Online is a data warehouse that collects, stores and displays information on chronic diseases and their risk factors for all WHO member states.

2. Global Health Atlas

WHO's Communicable Disease Global Atlas brings together for analysis and comparison standardised data and statistics for infectious diseases at country, regional and global levels.<sup>147</sup>

3. Causes of Death database

Causes of death by country, year, sex, cause and age group. Number of registered deaths, infant deaths, estimated completeness and coverage of mortality data for latest year.

#### Contact details and website

World Health Organisation

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<sup>147</sup> Regional level refers to a group of countries or a continent, not a subdivision of a sovereign state.

Email (general inquiries): [info@who.int](mailto:info@who.int)

Website: <http://www.who.int/en/>

## 48.2 WHOSIS

### 48.2.1 Contents

#### Data types and sources

Data based on official registers and surveys, collected from the member states. In cases where countries lack complete or reliable data, WHO estimates the data through modelling (based on data from other populations), available surveys and census sources.

#### Topics

The WHOSIS database contains Core Health Indicators from various WHO sources, including the latest editions of World Health Statistics and the World Health Report (World Health Organisation 2006a, 2006b). The database contains 98 indicators organised in seven categories (see Appendix C.48 for list of variables):

1. Mortality
2. Morbidity
3. Health service coverage
4. Risk factors
5. Health systems
6. Inequities in health
7. Demographic and socioeconomic statistics

#### Geographical coverage

The database covers all the 193 WHO member countries. All ESS countries are covered by the source. See Appendix C.48 for list of countries.

#### Time coverage and updates

Some countries and indicators are covered from the late 1970s onwards, but data are very sparse prior to the mid-1990s.

#### Documentation

Definitions and metadata for the database are provided online.

### **48.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

The query system allows the user to construct tables for any combination of countries, indicators and years. Predefined groups of countries (e.g., WHO European region) and indicators may also be selected.

#### Data formats

On-screen tables. Download available in CSV format.

### **48.2.3 Comparability and data quality**

Data were compiled, validated and processed in a uniform way in order to improve the international comparability of statistics. Nevertheless, since health data recording and handling systems vary between countries, so do the availability and accuracy of data reported to WHO. Data comparability is also limited, owing to differences in definitions and/or time periods, incomplete registration in some countries or other national specificities in data recording and processing. International comparisons between countries and their interpretation should thus be made with caution.

Furthermore, the accuracy and comparability of WHO statistics have been seriously challenged by scholars in recent years, among others by Murray, Lopez and Wibulpolprasert (2004) who claim that the WHO is unable to provide reliable and comparable health statistics in many areas.

### **48.2.4 Relevance to ESS users**

The WHOSIS database has an extensive geographical coverage, as it includes almost all the countries in the world. Where data overlap with the HFA-DB, the latter is the best for ESS users, since the time-span is wider for this database. The WHOSIS database is relevant for topics that are not covered by the HFA-DB.

## 48. 3 HFA-DB

### 48.3.1 Contents

#### Data types and sources

Data based on official registers and surveys, collected from various sources. Part of the data is annually collected directly from countries. Another part of data comes from those WHO technical units that collect appropriate statistical information within their own field. Secondary sources, such as other international organisations and agencies, are also an important source of data for a number of indicators.

#### Topics

The European “health for all” database (HFA-DB) provides easy and rapid access to a wide range of basic health statistics for the 52 member states of the WHO European Region. The database contains 603 indicators, organised in the eight groups (see Appendix C.48 for list of variables):

1. Demographic and socioeconomic statistics
2. Mortality-based indicators
3. Morbidity, disability and hospital discharges
4. Lifestyles
5. Environment
6. Health care resources
7. Health care utilisation and costs
8. Maternal and child health

#### Geographical coverage

The database covers all the 52 member states of WHO Europe.

#### Time coverage and updates

HFA-DB contains data from 1970 onwards. New data are continuously collected, and updated versions of the database are made public twice a year, in January and June.

#### Documentation

To ensure that the data are as internationally comparable as possible, recommended definitions of most indicators are provided for countries to follow. If national definitions differ, national

agencies are requested to describe the differences and also to provide sources of information. Details on definitions, including the recommended WHO definitions and country-specific notes on national definitions and data sources, are available in the database.

### **48.3.2 Accessibility**

#### Access conditions and costs

Available online free of charge. For more advanced data display and export options, the user must download the off-line version.

#### Access procedures

The online version of the database is a bit awkward to use. It is based on pop-up windows, and is not very intuitive. There are guidelines on how to use it, and it works fine after a little practice. The database allows users to choose countries, variables and years when constructing tables.

#### Data formats

On-screen tables only.

### **48.3.3 Comparability and data quality**

Data were compiled, validated and processed in a uniform way in order to improve the international comparability of statistics. Nevertheless, since health data recording and handling systems vary between countries, so do the availability and accuracy of data reported to WHO.

### **48.3.4 Relevance to ESS users**

The WHO provides data on a wide range of health related issues, and should therefore be of interest to ESS users. However, the quality and the comparability of the data are open to question, and the documentation of the most relevant indicators should be further examined if the WHO is to be used as a source.

The HFA-DB has the most extensive coverage when it comes to the number of indicators and the time-span of the two WHO databases. It covers all European countries and Israel.

## Sources

### Publications

Murray, Christopher J. L., Alan D. Lopez and Suwit Wibulpolprasert. 2004. "Monitoring global health: time for new solutions". *British Medical Journal* 329 (November): 1096-1100.

World Health Organisation. 2006a. *The World Health Report 2006*. Geneva: WHO.

World Health Organisation. 2006b. *World Health Statistics 2006*. Geneva: WHO.

### Electronic resources

World Health Organisation. 2007. "About WHO".  
<http://www.who.int/about/en/> (16 March 2007)

### Data download

WHOSIS:  
<http://www.who.int/whosis/indicatordefinitions/en/index.html>

HFA-DB:  
<http://www.euro.who.int/hfadlb>

### Appendices

1. List of countries
2. WHOSIS: List of variables
3. HFA-DB: List of variables

### Author of documentation

Data source documented by Arnesen.

## 49. World Income Inequality Database

### 49.1 General information

#### Research project

The World Income Inequality Database (WIID) contains information on income inequality in various countries, and is maintained by the United Nations University-World Institute for Development Economics Research (UNU-WIDER). The database was originally compiled during 1997-99 for the research project Rising Income Inequality and Poverty Reduction, directed by Giovanni Andrea Corina. A revised and updated version of the database was published in June 2005 as part of the project Global Trends in Inequality and Poverty, directed by Tony Shorrocks and Guang Hua Wan.

#### Dataset

World Income Inequality Database (WIID) v. 2.0a

#### Contact details and website

World Institute for Development Economics Research

Email: [wider@wider.unu.edu](mailto:wider@wider.unu.edu)

Website: <http://www.wider.unu.edu/wiid/wiid.htm>

### 49.2 WII Database

#### 49.2.1 Contents

##### Data types and sources

Income data based on surveys, official records and national accounts. The data are collected from several primary and secondary sources, such as Klaus Deininger and Lyn Squire's Measuring Income Inequality Database (see Deininger and Squire 1996), the Luxembourg Income Study (LIS), the Transmonee data by UNICEF/ICDC, national statistical offices and other research studies.

##### Topics

The database contains data on inequality in the distribution of income in various countries. The central variable in the dataset is the Gini index, a measure of income distribution in a society. In

addition, the dataset contains information on income shares by quintile or decile. See Appendix C.49 for a list of variables.

#### Geographical coverage

The database contains data for 154 countries, including some historical entities. See Appendix C.49 for a list of countries.

ESS country not covered: Iceland.

#### Time coverage and updates

The temporal coverage varies substantially across countries. For some countries there is only one data entry; in other cases there are over 100 data points. The earliest entry is from 1867 (United Kingdom), the latest from 2003. The majority of the data (65%) cover the years from 1980 onwards. The database will be updated, but the frequency of updates is not stated.

#### Documentation

The database is described in a fair amount of detail in a user's guide (UNU-WIDER 2005), which is available online. Country information sheets, which provide information about the sources and the surveys used for each country, are also available online.

### **49.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

Predefined table.

#### Data formats

Excel.

### **49.2.3 Comparability and data quality**

The database has been compiled to allow for comparisons of income inequality across time and space, but several factors may nonetheless affect the comparability of the data. The data are collected from a variety of sources, frequently using different definitions and methods of data

collection. Users must therefore examine the documentation carefully before using the data. See Atkinson and Brandolini (2001), Deininger and Squire (1996) and UNU-WIDER (2005) for discussions of the quality and comparability of income distribution statistics.

#### **49.2.4 Relevance to ESS users**

Indicators of income inequality should be of relevance to many ESS users, and the WIID is probably the most extensive collection of such data that is freely available online. Users should note, however, that there may be serious problems of data quality and comparability.

### **Sources**

#### Publications

Atkinson, Anthony B., and Andrea Brandolini. 2001. "Promise and pitfalls in the use of 'secondary' data-sets: income inequality in OECD countries as a case study". *Journal of Economic Literature* 39 (September): 771-799.

Deininger, Klaus, and Lyn Squire. 1996. "A new data set measuring income inequality". *World Bank Economic Review* 10 (3): 565-591.

UNU-WIDER. 2005. *World Income Inequality Database. V. 2.0a. User Guide and Data Sources*. <http://www.wider.unu.edu/wiid/wiid.htm> (1 May 2007).

#### Electronic resources

Measuring Income Inequality Database (Deininger and Squire 1996):  
<http://go.worldbank.org/UVPO9KSJJ0>

#### Data download

World Income Inequality Database:  
<http://www.wider.unu.edu/wiid/wiid.htm>

#### Appendices

1. List of countries
2. List of variables

#### Author of documentation

Data source documented by Rydland.

## 50. Worldwide Governance Indicators

### 50.1 General information

#### Research project

The Worldwide Governance Indicators (WGI) are produced by Daniel Kaufmann and associates as part of the World Bank's Governance Matters project. The indicators measure six dimensions of governance in most of the countries in the world.

#### Database

Worldwide Governance Indicators (WGI)

#### Contact details and website

Email (Daniel Kaufmann): [dkaufmann@worldbank.org](mailto:dkaufmann@worldbank.org)

Email (Aart Kraay): [akraay@worldbank.org](mailto:akraay@worldbank.org)

Website: <http://info.worldbank.org/governance/>

### 50.2 Worldwide Governance Indicators

#### 50.2.1 Contents

##### Data types and sources

The Worldwide Governance Indicators (WGI) are aggregate indicators based on subjective measures. The indicators reflect individuals' and companies' perceptions of the quality of governance in various countries, as measured by a large number of surveys. The indicators also reflect the assessments of commercial risk rating agencies, NGOs, and a number of multilateral agencies. The data for 2005 were, for example, based on a total of 276 individual variables taken from 31 different sources, produced by 25 different organisations (Kaufmann, Kraay and Mastruzzi 2006: 5).

##### Topics

The indicators cover six dimensions of governance: (1) voice and accountability, (2) political stability and absence of violence, (3) government effectiveness, (4) regulatory quality, (5) rule of law, and (6) control of corruption.

For each dimension, separate variables show the point estimate, the standard error and the number of sources used in each year. In addition to the aggregate indicators, all of the underlying data can be accessed interactively through links on the WGI website.

#### Geographical coverage

The latest version of the WGI includes data for 212 countries and territories, including all European countries. For some of the smaller countries, data are missing for some years and dimensions. All ESS countries are covered by the source. See Appendix C.50 for list of countries.

#### Time coverage and updates

Years covered: 1996, 1998, 2000, and 2002 to present.

Updated annually.

#### Documentation

The data and methodology used to construct the indicators are described in detail in various publications available at the WGI website (e.g., Kaufmann, Kraay and Mastruzzi 2003, 2005 and 2006; Kaufmann, Kraay and Zoico-Lobatón 1999). See Gervasoni (2006), Van de Walle (2006), and Arndt and Oman (2006) for independent reviews of the database.

### **50.2.2 Accessibility**

#### Access conditions and costs

Available free of charge.

#### Access procedures

The entire dataset can be downloaded as a predefined table. Data can also be accessed interactively. By accessing the data interactively, it is possible to limit the output by specifying indicators, countries and time period. Data from the underlying data sources are also available. It is possible to view the data graphically as charts and maps.

#### Data formats

Excel and on-screen tables.

### 50.2.3 Comparability and data quality

The precision of the WGI has been improved in recent years, and the dataset received a very favourable review by Gervasoni (2006). Nonetheless, the margins of error are still significant. Kaufmann, Kraay and Mastruzzi (2006: 13) stress that the “confidence intervals are substantial relative to the units in which governance is measured” and that “it is therefore more useful to focus on the *range* of possible governance values for each country” (emphasis in original).

In the 2006 edition of the indicators (Governance Matters V), some changes were made to make them more comparable over time. The changes were implemented retroactively, so that the indicators can be used to measure changes from one year to another (ibid: 8-11), though there are still some problems associated with making comparisons over time (Kaufmann, Kraay and Mastruzzi 2005: 12-16).

### 50.2.4 Relevance to ESS users

All attempts to measure a complex and multifaceted concept as governance are bound to be imprecise and tentative, especially when it comes to unobserved phenomena such as corruption. The WGI should therefore be interpreted with caution. Still, the indicators contain relevant and valuable information that could be of interest to many ESS users.

## Sources

### Publications

Arndt, Christiane, and Charles Oman. 2006. *Uses and Abuses of Governance Indicators*. Paris: OECD.

Gervasoni, Carlos. 2006. “Data set review: the World Bank’s Governance Indicators (1996-2004)”. *APSA-CP Newsletter* 17 (Winter): 17-20.

Kaufmann, Daniel, Aart Kraay and Pablo Zoido-Lobaton. 1999. “Aggregating governance indicators”. Policy Research Working Paper, 2195. Washington: World Bank Institute.  
<http://info.worldbank.org/governance/> (1 May 2007).

Kaufmann, Daniel, Aart Kraay and Massimo Mastruzzi. 2003. “Governance Matters III: governance indicators for 1996-2002”. Washington: World Bank.  
<http://info.worldbank.org/governance/> (1 May 2007).

Kaufmann, Daniel, Aart Kraay and Massimo Mastruzzi. 2005. “Measuring governance using cross-country perceptions data”. Washington: World Bank.  
<http://info.worldbank.org/governance/> (1 May 2007).

Kaufmann, Daniel, Aart Kraay and Massimo Mastruzzi. 2006. “Governance Matters V: aggregate and individual governance indicators for 1996-2005”. Washington: World Bank.

<http://info.worldbank.org/governance/> (1 May 2007).

Van de Walle, Steven. 2006. "The state of the world's bureaucracies". *Journal of Comparative Policy Analysis* 8 (December): 437-448.

#### Electronic resources

Governance Data Sets and Indicators:

<http://www.worldbank.org/wbi/governance/govdatasets/external.html>

#### Data download

Worldwide Governance Indicators:

<http://info.worldbank.org/governance/>

<http://go.worldbank.org/ATJXPHZMH0>

#### Appendix

1. List of countries

#### Author of documentation

Data source documented by Rydland.

## 51. Topics covered by the data sources

This section lists the topics covered by the data sources examined in this report. For each topic, the most relevant data sources are listed.

### Agriculture and fisheries

- Eurostat
- OECD
- United Nations Statistical Division
- World Bank

### Communication and culture

- Eurostat
- OECD
- United Nations Statistical Division
- UNESCO

### Corruption

- Transparency International
- Worldwide Governance Indicators

### Economy and finance (incl. national accounts)

- Eurostat
- Groningen Growth and Development Centre
- International Monetary Fund
- OECD
- Penn World Table
- United Nations Economic Commission for Europe
- United Nations Statistical Division
- World Bank

### Education

- Eurostat
- OECD

- UNESCO
- UNICEF
- United Nations Economic Commission for Europe
- United Nations Statistical Division
- World Bank

#### Elections and electoral systems

- CivicActive
- Comparative Political Datasets
- Constituency-Level Elections Dataset
- Database of Political Institutions
- Democratic Electoral Systems Around the World
- Election Resources on the Internet
- Lijphart Elections Archive
- Political Transformation and the Electoral Process
- Psephos

#### Environment and energy

- Environmental Performance Measurement Project
- Eurostat
- OECD
- United Nations Statistical Division
- World Bank

#### Events data

- Terrorism in Western Europe: Events Data (TWEED)

#### Health

- Eurostat
- OECD
- UNICEF
- United Nations Economic Commission for Europe
- United Nations Statistical Division

- World Bank
- World Health Organisation

#### Human rights

- CIRI Human Rights Dataset
- Freedom House
- Minorities at Risk
- Political Terror Scale
- Reporters sans frontières
- Quality of Government Datasets (QoG)

#### Industry, trade and services

- Eurostat
- Groningen Growth and Development Centre
- International Monetary Fund
- OECD
- United Nations Economic Commission for Europe
- United Nations Statistical Division
- World Bank

#### Labour market and labour unions

- Eurostat
- International Labour Organisation
- OECD
- Union Centralisation Among Advanced Industrial Societies
- United Nations Economic Commission for Europe
- United Nations Statistical Division
- World Bank

#### Living conditions and welfare

- Comparative Welfare States Dataset
- Comparative Welfare States Entitlements Dataset
- Eurostat

- OECD
- UNICEF
- United Nations Economic Commission for Europe
- United Nations Statistical Division
- World Bank
- World Income Inequality Database

#### Minorities and immigrants

- Eurostat
- Fractionalisation Data
- Migration DRC
- Minorities at Risk
- OECD

#### Political institutions and processes

- ACLP
- Centripetal Democratic Governance
- Comparative Political Datasets
- Comparative Welfare States Dataset
- Cross-National Time-Series Data Archive
- Database of Political Institutions
- Inter-Parliamentary Union
- Judicial Checks and Balances
- Political Constraint Index
- Quality of Government (La Porta et al.)
- Quality of Government Datasets (QoG)
- Worldwide Governance Indicators

#### Political parties

- Comparative Parties Dataset
- Comparative Political Datasets
- Database of Political Institutions
- Party Policy in Modern Democracies

### Political regimes

- ACLP
- Database of Political Institutions
- Freedom House
- Polity Project
- Polyarchy and Contestation Scales
- Polyarchy (Vanhanen)
- Quality of Government Datasets (QoG)

### Population

- Eurostat
- OECD
- United Nations Economic Commission for Europe
- United Nations Statistical Division
- World Bank

### Religion

- Fractionalisation Data
- World Christian Database

### Science and technology

- Eurostat
- OECD
- UNESCO
- United Nations Statistical Division
- World Bank

### Tourism

- Eurostat
- United Nations Statistical Division
- World Bank

Trade

- Eurostat
- OECD
- United Nations Economic Commission for Europe
- United Nations Statistical Division
- World Bank

Transport

- Eurostat
- OECD
- United Nations Statistical Division

