

**Statistical indicators relating to social dialogue:
A compilation of multiple country databases**

Working Paper No. 56

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Geneva**

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Working papers are preliminary documents circulated
to stimulate discussion and obtain comments

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Preface

Social dialogue refers to “all types of negotiation, consultation or simply exchange of information between or among representatives of governments, employers and workers, on issues of common interest relating to economic and social policy.” (See www.ilo.org/public/english/dialogue/ifpdial.sd/index.htm).

There is keen interest in gaining a clearer picture of how social dialogue operates and of the related questions of trade unionism and collective bargaining, freedom of association and “voice.” Controversy persists over whether and how these may be subject to statistical measurement, and to what end.

In any event, various attempts are being made to measure such phenomena. The author, who is with the Statistical Development and Analysis Unit of the Policy Integration Department, renders a valuable service by surveying what already exists. Employing a consistent framework to describe the various approaches, the author provides technical commentary in relation to the available data. She thus aids researchers in making their own analysis.

Working Papers are intended to stimulate debate in relation to the development of the ILO’s Decent Work Agenda. Comments are welcome at integration@ilo.org.

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September 2005

Foreword

The present working paper is a first of a series of compendia on databases related to decent work. The objective is to identify and provide easy access to the most important multi-country databases on social dialogue, inside and outside the ILO.

This paper deals with one key aspect of decent work, social dialogue. An important dimension of decent work is the extent to which workers can express themselves on work-related matters and participate in defining their working conditions. This can be channeled through collectively chosen representatives or involve direct interaction between the worker and employer. The ability of workers to organize freely to defend their interests collectively in negotiations with the employer is a pivotal element of democracy at the workplace and the effectiveness of social dialogue.

The author of the compendium, Anne Chataignier, has collected information on the most important data sources. For each of these sources, she has described the way the data were collected and adjusted, so that users can determine for themselves the quality of the data and how they should be used.

Peter Peek
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April 2005

Introduction

The objective of this report is to provide data users with existing and accessible multi-country sources of statistical data on social dialogue.

The sections of this report describe indicators of trade union, collective bargaining and strikes and lockouts. We have chosen to focus on the original sources only. Indicators which have been derived from these sources are not described here. Sources for trade union density are not given if the source is already included in the section on trade union membership.

The sources presented in this report indicate that there is a relatively large body of statistical data relating to social dialogue. Some international organisations compile data on social dialogue from at least 1980: the ILO, the World Bank and the OECD. Other important sources are the European Union, Eurostat and research institutes.

All the sources in this report correspond to databases or publications available in hard copy or online. Internet links are indicated when available. Each source details the number of countries for which data are available, number of countries by region, period covered and a description of the data (sources, definition used and quality of the data).

The reader will also find that different data sources sometimes provide different data for the same country and the same year. In fact, some of the data sources overlap and inconsistencies have been observed. We have not attempted to compare data, to assess their quality or to harmonize them in any way. Instead, we have provided information on the data sources, in particular the way the data were collected and adjusted, so that users can determine themselves the quality of the data and how they should be used. References to the metadata were also included where available.

The fourth section of the report describes three country-level indexes on social dialogue; an index of Freedom of Association and Collective Bargaining developed by the International Institute for Labour Studies of the ILO, an index of Voice Representation and Security developed by the Socio-Economic Security programme of the ILO and an index of Industrial Relations Legislation developed by authors from Harvard University, World Bank and Yale University.

The last section reports on data from an opinion survey. This includes a statistical indicator of the opinions of businesses executives on labour-employer relations in their country.

A. Trade unions and membership

This part of the report describes the different multi-country sources on trade union statistics. It includes three indicators: number of trade unions, trade union membership and trade union density.

As explained previously, sources are described for trade union density only if the source has not already been indicated for trade union members. Trade union density can be easily calculated by dividing trade union membership by a chosen denominator (employee, non-agricultural labour force, etc.).

The main source of trade union data are ILO databases, the OECD Labour Market database, the Rama & Artecona database and several publications by J. Visser, B. Ebbinghaus, M. Golden, P. Lange, M. Wallerstein and M. Carley (see references in the pages that follow).

National data for trade unions can be obtained from different sources, from an official register, a central statistical bureau, or one or more trade union federations. The methods to collect data on trade union membership can be grouped into two broad categories: surveys and administrative data. The first category includes household, enterprise or labour force surveys, the second category involves membership statistics from questionnaires completed by individual unions or trade union federations.

For most of the sources, data are not comparable among countries. Definitions are not the same and differences exist between the periods covered. However, some sources have tried to harmonize data to a certain extent.

The largest database in regard to the number of countries with available data on trade union membership has been compiled by J. Visser (see Visser, 2002). It includes data for 100 countries and two observations during the period 1980 to 1999. However, the OECD database and the trade union membership database from the ILO Bureau of Statistics have longer periods of observation.

A.1. Number of trade unions

1.a. Number of trade unions

Source: (hard copy)	ILO. 2004. Statistics of Trade Union Membership. Geneva: International Labour Office, Bureau of Statistics. Copies of this report can be obtained from the ILO by e-mailing the Bureau of Statistics: stat@ilo.org
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Number of countries covered:	45 Americas: 14, Africa: 1, Asia: 12, Europe: 16, Oceania: 2
------------------------------	-----------------------------------------------------------------

Period covered:	1980-2002 (at least four observations per country)
-----------------	-------------------------------------------------------

Description of the data

Source

The data are official national statistics taken mainly from national publications (yearbooks, statistical abstracts), but in a few cases other sources have been used. For some countries, the data are drawn from the official reports of trade unions submitted in accordance with laws or regulations to the competent authority, such as a certification officer or registrar. In these cases, the trade unions providing reports may vary from year to year. Non-affiliated and non-registered trade unions may not report at all. In other countries, data are collected through household labour force surveys or surveys of establishments (employers).

Coverage & adjustment

The coverage of the data derived from the different sources varies: the data may cover different sizes of establishments (establishment surveys often exclude small establishments), different sectors or economic activities, and so on. The figures have not been adjusted in any way but are as shown in the publications.

1.b. Number of trade unions

Source: (hard copy)	Ebbinghaus, Bernhard and Jelle Visser. 2000. The Societies of Europe, Trade Unions in Western Europe since 1945. MacMillan, London.
Number of countries covered:	15 Europe: 15
Period covered:	1945-1998 (at least five observations per country)

Description of the data

Source

The data were collected from publications of unions, or trade union confederations (in yearbooks, reports, and statistical statements, some of which are unpublished). In some countries, the authors have conducted surveys to gain a more complete picture of union organizations, domains, membership composition, bargaining representation.

Coverage & adjustment

The authors collected data on both affiliated and non-affiliated national unions. Data have been adjusted. Unions existing for less than one year have not been recorded. The authors also excluded all mandatory or involuntary organizations.

A.2. Number of trade union members

2.a. *Number of trade union members*

Source: (hard copy)	Visser, Jelle. 2002. "Unions, unionisation and collective bargaining trends around the world". International Labour Office. Geneva.
Number of countries covered:	100 Americas: 24, Africa: 27, Asia: 18, Europe: 29, Oceania: 2
Period covered:	1993-2003 (one or two observations per country)

Description of the data

Source

These data were obtained from several sources:

A global survey of representatives of governments, unions and employers was conducted for the ILO Labour Report, 1997. From this survey, it was possible to derive data for 1995 and the ten preceding years. This has been the most important source, together with updates from statistical offices, ILO field offices, the Data Handbook on European Unions by Ebbinghaus and Visser, 2000, the on-line database of the OECD and Golden and Wallerstein, 2004, on organisational data for the non-European members of the OECD.

Coverage & adjustment

Membership data has been adjusted to exclude spouses, students, self-employed and pensioners where such groups are included in unions' membership in significant numbers. For some countries like India, data included self-employed trade union members.

2.b. Number of trade union members

Source: (on line)	ILO. 1997. <i>World Labour Report 1997/98</i>. Geneva: International Labour Office. http://www.ilo.org/public/english/dialogue/ifpdial/publ/wlr97/
Number of countries covered:	98 Americas: 23, Africa: 25, Asia: 15, Europe: 33, Oceania: 2
Period covered:	1980-1996, (one or two observations per country)

Description of the data

Source

Various methods have been used to collect the data.

The ILO sent a questionnaire on union membership, union density and collective bargaining (1996) trends to governments, employers and union representatives. Trade union profiles obtained through the ILO trade union network have been used as an additional source.

For many countries in Africa, Latin America, and Central and Eastern Europe the data on trade union organization and employment were provided by the ILO field offices.

Furthermore, use has been made of data from special reports and research notes on Argentina, Brazil, India, Malaysia, Peru, Poland, The Russian Federation, South Africa, and Uganda. In total, these sources have given data on 64 countries.

A database established by J. Visser and published by OECD, 1991, provided data covering the 1980s for 24 member States of the Organisation for Economic Co-operation and Development. For the purpose of this report, the material has been updated to the mid-1990s, employing the same sources and methods as the original report.

An additional ten countries have been added on the basis of national sources, statistical yearbooks, government reports, published research, including case-studies on countries in Africa, Asia, Latin America and Central and Eastern Europe.

Coverage & adjustment

In some cases, difficulties have been encountered with regard to the quality and comparability of the data. Comparability across countries, especially between countries in different regions, is problematic. Data have not been adjusted.

2.c. Number of trade union members

Source: ILO. 2004. **Statistics of Trade Union Membership. Geneva:** International Labour Office, Bureau of Statistics.
(hard copy) Copies of this report can be obtained from the ILO by e-mailing the Bureau of Statistics: stat@ilo.org

Number of countries covered: 45
Americas: 14, Africa: 1, Asia: 12, Europe: 16, Oceania: 2

Period covered: 1980-2002,
(at least four observations per country)

Description of the data

Source

The data are the official national statistics taken mainly from national publications, but in a few cases other sources have been used. For some countries, the data are drawn from the official reports of trade unions submitted in accordance with laws or regulations to the competent authority, such as a certification officer or registrar. In these cases, the trade unions providing reports may vary from year to year. Non-affiliated and non-registered trade unions may not report at all. In other countries, data are collected through household labour force surveys or surveys of establishments (employers).

Coverage & adjustment

The coverage of the data derived from the different sources varies: the data may cover different sizes of establishments (establishment surveys often exclude small establishments), different groups of workers (all persons in employment, paid employees only, etc.), different sectors or economic activities, and so on. Some trade union figures may include not only employed persons, but also retired workers, persons who are not economically active and unemployed persons.

Figures have not been adjusted in any way. Union membership data are subject to reporting errors (all sources). In household surveys, both sampling and non-sampling errors may occur, such as inaccurate proxy answers. Many unions have difficulty in keeping accurate and up-to-date records of their membership, and therefore reports by unions are subject to inaccuracies. Members who have left the union or who have died may not be deleted from the records for some time, and those joining another union may be counted in each for a certain period.

2.d. Number of trade union members

Source: (hard copy)	ILO. 2004 and 2003 Preliminary results – Social Dialogue Indicators Project, Rounds 1 and 2. Geneva: International Labour office. Data can be obtained from the ILO by e-mailing the Bureau of Statistics: stat@ilo.org
Number of countries covered:	31 Americas: 7, Africa: 3, Asia: 6, Europe: 13, Oceania: 2
Period covered:	2000-2004 (at least one observation per country)

Description of the data

Source

The ILO sent out a questionnaire on trade union membership and union density. Both rounds (2003 and 2004) went to ministries of labour and national statistical offices. Round 1 was also addressed to major trade unions.

Coverage & adjustment

For the Trade Union Membership Questionnaire, proposed definitions for trade union membership are based on ILO instruments. Official definitions and resulting statistics based on national criteria were also reported. All of the statistics are requested for both sexes together, and for women and men separately. The figures have not been adjusted in any way.

2.e. Number of trade union members

Source: (on line)	OECD. Labour Market Statistics Database. http://www1.oecd.org/scripts/cde/members/lfsdataauthenticate.asp
Number of countries covered:	26 Americas: 2, Asia: 2, Europe: 20, Oceania: 2
Period covered:	1960-2003, (at least five observations per country)

Description of the data

Source

Data are based on surveys, wherever possible. Where such data were not available, union membership in European Union countries, Norway and Switzerland was calculated using administrative data adjusted for non-active and self-employed members by J. Visser, along the model used in Ebbinghaus and Visser, 2000.

The exact source used for each country is described in the OECD *Employment Outlook* 2004.

Coverage & adjustment

The data have been adjusted, and refer, wherever possible, to 'net' membership. Data tend not to include non-active members.

2.f. Number of trade union members

Source (on line)	EIRO. 2004. "Trade union membership 1993-2003" , eironline (European industrial relations observatory on line). http://www.eiro.eurofound.eu.int/2004/03/update/tn0403105u.html
Number of countries covered	26 Europe: 26
Period covered	1993, 1998, 2003 (at least one observation per country)

Description of the data

Source

The membership figures provided are those made available from national sources - usually the trade union organizations themselves - and reported by the European Industrial Relations Observatory centres in each country. In some cases, the information is from a central official register or authority (Labour Force Survey, census), or based on the work of research centres. Estimations were made for few cases by the EIRO national centres or by the European Commission.

Coverage & adjustment

The author underlines that no attempt has been made to examine how these national data are calculated, to assess their accuracy or to harmonise them in any way - a major caveat which should be borne in mind when reading the information provided.

2.g. Number of trade union members

Source: (hard copy)	Ebbinghaus, Bernhard and Jelle Visser. 2000. <i>The Societies of Europe, Trade Unions in Western Europe since 1945</i>. MacMillan, London.
Number of countries covered:	15 Europe: 15
Period covered:	1945-1998 (at least five observations per country)

Description of the data

Source

The authors have collected data produced and presented by unions, or confederations themselves (in their yearbooks, reports, and statistical statements, some of which are unpublished).

In some countries, the authors have conducted surveys to gain a more complete picture of union organizations, domains, membership composition, bargaining representation.

Coverage & adjustment

The authors collected data on national unions, both affiliated to confederations and non-affiliated.

The data are adjusted to the following definition: data of trade union membership excludes self-employed and retired. The data are published with or without unemployed members.

2. Number of trade union members – Summary table

Source	No. of countries covered	Period covered	Source of data	Adjustment
J. Visser <i>Unions, unionisation and collective bargaining trends around the world</i>	100	1993-2003	ILO world labour report Societies of Europe H. OECD database Statistical offices ILO fields offices	Adjusted
ILO <i>World Labour Report 1997/98</i>	98	1980-1996	ILO questionnaires ILO regional offices OECD database National publications	Not adjusted
Bureau of Statistics <i>National publications collection</i>	45	1980-2002	National publications	Not adjusted
ILO <i>Social Dialogue Indicators Project</i>	33	2000-2004	Questionnaire	Not adjusted
OECD <i>Labour Market database</i>	26	1960-2003	Administrative data Survey from ONS European survey ILO World Labour Report	Adjusted
European Foundation <i>Trade Union membership</i>	26	1993-2003	Unions Central official register Research centres EIRO estimations	Not adjusted
J. Visser, B.Ebbinghaus <i>Trade union in Western Europe since 1945</i>	15	1945-1998	Unions, confederations Surveys	Adjusted

A.3. Trade union density

3.a. Trade union density

Source: (hard copy)	Rama, Martin and Raquel Artecona. 2002. "A database of labor market indicators across countries". World Bank.
Number of countries covered:	105 countries Americas: 24, Africa: 21, Asia: 27, Europe: 31, Oceania: 2
Period covered:	1945-99, varies by country (1 to 11 observations per country)

Description of the data

Source

Data are based on the number of active members who are contributors (due to paying), declared by the trade unions themselves and in labour force estimates.

Coverage & adjustment

Figures are reported in the form of five-year period averages.

Data refer to total trade union membership, as a percentage of the total labour force. Includes workers of both sexes in public and private sectors. In some countries, the union membership may include unemployed and retired workers who pay contributions. When declared membership is larger than the labour force, a 100 percent membership rate is reported.

3.b. *Trade union density*

Source: (hard copy)	Standing, Guy and Florence Bonnet. 2004. "A Voice Representation Security Index". International Labour Office, Infocus Programme on Socio-Economic Security.
Number of countries covered:	99 countries Americas: 16, Africa: 24, Asia: 19, Europe: 35, Oceania: 5
Period covered:	1990-1999, varies by country (One observation per country)

Description of the data

Source

Estimated unionization rates are from the ILO's *World Labour Report*, 1997/98, and from the authors' database. This database was built on the basis of a questionnaire. The country correspondent is responsible for selecting the most reliable source, identifying it precisely in the questionnaire and also indicating explicitly when the answer to a question, or a series of variables, is not available in the country. Data is collected from published material, electronic files, etc. and also, when appropriate, through direct interviews with experts, managers, etc.

Coverage & adjustment

There are several conceptual and measurement difficulties, and there is much to be done to improve international data in this respect. What the authors have done is to treat the very high figures recorded for ex-Soviet Union countries as misleadingly high, in part because until the late 1980s or early 1990s, all workers were required to belong to unions, formally at least. There is a legacy here, so they have halved the values for all of these countries — which still puts most of them in the high-level bracket.

The unionization figures for all countries have also been adjusted by multiplying the recorded rate (or half it in the case of the ex-Soviet countries) by the percentage of the workforce in wage and salaried employment.

3.c. *Trade union density*

Source: (on line)	OECD. <i>Labour Market Statistics Indicators</i>. http://www1.oecd.org/scripts/cde/members/lfsindicatorsauthenticate.asp
Number of countries covered:	30 Americas: 3, Asia: 2, Europe: 23, Oceania: 2
Period covered:	1960-2002, (at least three observations per country)

Description of the data

Source

Data are based on surveys, wherever possible. Where such data were not available, union membership in European Union countries, Norway and Switzerland was calculated using administrative data adjusted for non-active and self-employed members by J. Visser, along the model used in Ebbinghaus and Visser, 2000.

The exact source used for each country is described in the OECD *Employment Outlook* 2004.

Coverage & adjustment

The data have been adjusted and refer, wherever possible, to 'net' membership. Data tend not to include non-active members.

3.d. Trade union density

Source (on-line)	European Commission. <i>Industrial Relations in Europe 2004</i>. Dataset available at http://europa.eu.int/comm/employment_social/news/2005/jan/industrial_relations_2004_report_en.html
Number of countries covered	Europe: 25
Period covered	1990-2002 (at least one observation per country)

Description of the data

Source

Density rates for EU-15: in the case of the Netherlands, Sweden, the United Kingdom and the United States, figures are calculated from labour force surveys. Elsewhere they are calculated from administrative sources.

Density rates for EU-10: Data were collected by the Institut des Sciences du Travail of the Université Catholique de Louvain, *Monographs on the Situation of Social Partners in the Candidate Countries*, Brussels, December 2003, research project conducted on behalf of the Employment and Social Affairs Directorate of the European Commission.

Coverage & adjustment

Density rates for EU-15 countries are standardized, i.e. without unemployed and self-employed, retired employees and student members, along the model in B. Ebbinghaus and J. Visser, 2000, *The Societies of Europe*.

The EU-10 figures are non-standardised and follow nationally-based statistics.

3.e. *Trade union density*

Source: (on-line)	Golden, Miriam, Peter Lange and Michael Wallerstein. 2004. "Union Centralization among Advanced Industrial Societies: Update to 1995/2000" , Version dated 2004. Dataset available at http://www.shelley.polisci.ucla.edu/data Version dated July 28, 2004.
Number of countries covered:	20 Americas: 2, Asia: 1, Europe: 15, Oceania: 2
Period covered:	1950-1997 (at least five observations per country)

Description of the data

Source

Total union density and net union density from Ebbinghaus and Visser, 2000. Total union density equivalent to gross density II and net union density equivalent to net density II.

For missing years, the authors used data, where available, from two Visser papers:

-Visser Jelle. 1992. Trade Union Membership database, unpublished dataset.

-Visser Jelle. 1996. "Unionization Trends Revisited", unpublished paper, University of Amsterdam.

Total dependant labour force comes from OECD, 1996.

In his publication, *The Societies of Europe: Trade Unions in Western Europe since 1945*, J. Visser has tried to collect data produced and presented by unions or confederations themselves (in their yearbooks, reports, and statistical statements, some of which are unpublished). In some countries, the authors have conducted surveys to gain a more complete picture of union organizations, domains, membership composition and bargaining representation.

Coverage & adjustment

Total trade union membership was constructed as total union membership (less self-employed) weighted by the total dependant labour force. The net union membership was constructed as net union membership (total membership less self-employed and retired) weighted by the total dependant labour force.

The data are adjusted to the following definition: data of trade union membership excludes self-employed and retired. The data are published with or without unemployed members.

2. Trade union density – Summary table

Source	No. of countries covered	Period covered	Source of data	Adjustment
M. Rama <i>A database of labor market indicators across countries</i>	105	1945-1999	Trade unions	Not Adjusted
G. Standing, F. Bonnet <i>A Voice Representation Security Index</i>	99	1990-1999	ILO World Labour Report Questionnaires	Adjusted
OECD <i>Labour Market Statistics Indicators</i>	30	1960-2002	Surveys Administrative data	Adjusted
Gloden, Wallerstein, Lange: <i>'Union Centralization among Advanced Industrial Societies'</i>	20	1950-1997	Several J.Visser's Publications	Adjusted

B. Collective bargaining

This part of the report describes the different publications and databases which publish collective bargaining statistics. It focuses on three indicators: collective bargaining coverage rate, collective bargaining level and collective bargaining coordination.

The main sources of the collective bargaining rate are various ILO databases, the OECD labour market database, the Rama and Artecona database and publications written by W. Ochel, M. Golden, J. Visser and F. Taxler (see references in the pages that follow).

Data for the collective bargaining rate may be available from ministries of labour, national statistical offices and employer organizations. The data can be obtained from household or labour force surveys which include questions as to whether the respondent's job is covered by a collective agreement or surveys sent to employer organizations.

Some authors publish data without adjustment while others have tried to harmonize data to the same definition. As some employees are excluded from the right to conclude collective bargaining agreements, two coverage rates can be calculated: the unadjusted coverage rate, defined as the ratio of employees actually covered to the potential number who could in principle be covered by the formal provision of bargaining rights, and the adjusted coverage rate, without the employees who are excluded from the right to conclude collective bargaining agreements.

The largest database in terms of the number of countries and observations for the collective bargaining coverage rate is the database of labour market indicators across countries from M. Rama and R. Artecona. It includes data for 45 countries which are reported under the form of five-year period averages, from 1980-85 to 1995-99.

Five sources are presented for calculating the collective bargaining level. Two are time invariant or present few observations and assess the level at which collective contracts are negotiated and formally set: the World Labour Report and the OECD. The other sources vary over time, are measured annually and assess the bargaining level at which wages are determined: Iversen, Golden-Lange-Wallerstein (GLW) and Traxler-Blaschke-Kittel indicators.

Three sources are presented for collective bargaining coordination: the OECD, the Traxler-Blaschke-Kittel measure which is based on methods of coordination and the Kenworthy score which is based on a set of expectations that is likely to be generated by wage-setting institutions.

B.1. Collective bargaining coverage rate

1.a. *Collective bargaining coverage rate*

Source: (hard copy)	Rama, Martin and Raquel Artecona. 2002. "A database of labor market indicators across countries". World Bank.
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Number of countries covered:	45 Americas: 10 , Africa: 7, Asia: 6, Europe: 20, Oceania: 2
------------------------------	-----------------------------------------------------------------

Period covered:	1980-1999 (one to three observations per country)
-----------------	------------------------------------------------------

Description of the data

Source

Figures are reported under the form of five-year period averages.

Data refer to workers covered by collective agreements, as a percentage of total salaried or dependant workers. Data are based on collective bargaining agreements and sectoral employment data. Data has not been adjusted.

1.b. **Collective bargaining coverage rate**

Source: ILO. 1997. *World Labour Report 1997/98*. Geneva: International Labour Office.
(on line) <http://www.ilo.org/public/english/dialogue/ifpdial/publ/wlr97/>

Number of countries 43
covered: Americas: 12, Africa: 8, Asia: 8, Europe: 13, Oceania: 2

Period covered: 1993-1996
(one observation per country)

Description of the data

Source

Main sources are ILO estimates and ILO questionnaires on trade union membership and collective bargaining (1996).

Coverage & adjustment

The collective bargaining rate shows the proportion of employees covered by collective agreements. The sources of the data differ and therefore caution is necessary when comparing data across countries. Collective bargaining coverage rates only concern the formal sector and are not adjusted.

1.c. Collective bargaining coverage rate

Source: Visser, Jelle. 2002. "Unions, unionisation and collective bargaining trends around the world". International Labour Office. Geneva.
(hard copy)

Number of countries 33
covered: Americas: 5, Africa: 3, Asia: 6, Europe: 17, Oceania: 2

Period covered: 1985-2000
(one or two observations per country)

Description of the data

Source

Data are from several sources: OECD, 1994, Ochel, 2000, Visser, 2002; Bureau of Labor Statistics for the United States; Statistics Canada for Canadian data; ILO *World Labour Report* (1997) and ILO database for other countries.

Coverage & adjustment

Share of employed wage and salary earners covered by collective agreements resulting from union-management negotiations or statutes. Data have not been adjusted.

1.d. **Collective bargaining coverage rate**

Source: ILO. 2004 and 2003 Preliminary results – Social Dialogue Indicators Project, Rounds 1 and 2. Geneva: International Labour Office.
(hard copy) Data can be obtained from the ILO by e-mailing the Bureau of Statistics: stat@ilo.org

Number of countries 31
covered: Americas: 8, Africa: 1, Asia: 5, Europe: 16, Oceania: 1

Period covered: 2000-2004
(at least one observation per country)

Description of the data

Source

The ILO sent out a questionnaire on collective bargaining coverage. Both rounds (2003 and 2004) went to ministries of labour and national statistical offices. Round 1 was also addressed to major trade unions and employer organizations. All of the statistics were requested for both sexes together, and for women and men separately.

Coverage & adjustment

For the Collective Bargaining Coverage Questionnaire, the proposed definitions were for collective bargaining for which determination of remuneration took place and for collective bargaining coverage. Official national definitions and resulting statistics based on national criteria were also reported. The figures have not been adjusted in any way and are as sent by countries.

Other collective bargaining coverage information relates to bargaining levels, periodicity, extensions, and average length of agreements.

1.e. **Collective bargaining coverage rate**

Source: Golden, Miriam, Peter Lange and Michael Wallerstein. 2004. "Union Centralization among
(on line) **Advanced Industrial Societies: Update to 1995/2000**", Version dated 2004.
Dataset available at <http://www.shelley.polisci.ucla.edu/data>
Version dated July 28, 2004.

Number of countries 20
covered: Americas: 2, Asia: 1, Europe: 15, Oceania: 2

Period covered: 1980, 1985, 1990, 1996

Description of the data

Source

Data are taken from Traxler, Blaschke and Kittel, 2001.
A few data come from OECD, 1997.

Coverage & adjustment

The adjusted coverage rate is defined as the number of workers covered by a collective agreement divided by the number of workers with the *legal right to bargain*.
The unadjusted coverage rate is defined as the number of workers covered by a collective agreement divided by the labour force.

Any calculation of coverage rates needs to take account of the fact that in a number of countries some employees are excluded from the right to conclude collective agreements. Hence, it is important to differentiate between the unadjusted coverage rate and the adjusted coverage rate.

1.f. **Collective bargaining coverage rate**

Source: (on line)	Ochel, Wolfgang. 2000. "Collective Bargaining Coverage in the OECD from the 1960s to the 1990s", CESifo Forum. http://www.ifo.de/pls/guestci/download/CESifo+Forum+2001/CESifo+Forum+4/2001/Forum401%2Ddice3.pdf
Number of countries covered:	20 Europe: 20
Period covered:	1960, 1965, 1970, 1975, 1980, 1985, 1995 (at least four observations per country)

Description of the data

Source

This publication uses data for collective bargaining coverage from the OECD, 1994 and 1997. The OECD data cover the years 1980, 1990 and 1994. They are based on surveys, calculations and estimates by experts.

In order to obtain information on collective bargaining coverage for the period 1960 to 1980, a questionnaire was sent to experts in 20 OECD countries.

Coverage & adjustment

The coverage rate is defined as the number of employees covered by a collective agreement divided by the total number of wage and salary earners. Any calculation of national coverage rates needs to take account of the fact that in a number of countries certain groups of employees (in the public sector) are legally excluded from the right to conclude collective agreements. The adjusted rate is used in this paper.

1.g. **Collective bargaining coverage rate**

Source: OECD. 2004. *Employment Outlook, Chapter 3.*
(on line) OECD. 1997. *Employment Outlook, Chapter 3.*
OECD. 1994. *Employment Outlook, Chapter 5.*
<http://www.oecd.org/>

Number of 19
countries covered: Americas: 2, Asia: 1, Europe: 14, Oceania: 2

Period covered: 1980, 1990, 1994, 2000
(at least two observations)

Description of the data

Source

Data were taken or estimated from several sources: where possible from Labour Force Surveys, but also from EIRO, 2002, European Commission and direct submissions by OECD governments.

Sources for each individual country are described in Annex 3.A in the OECD, *Employment Outlook 1997, Chapter 3, Economic performance and the structure of collective bargaining, 1997* and in *OECD, Employment Outlook 2004, Chapter 3, Wage-Setting Institutions and Outcomes*.

Coverage & adjustment

Any calculation of coverage rates needs to take account of the fact that in a number of countries, some employees are excluded from the right to conclude collective agreements. Hence, it is important to differentiate between the unadjusted coverage rate, defined as employees covered by a collective agreement as a proportion of all employees, and the adjusted coverage rate, defined as the ratio of employees actually covered to the potential number who could in principle be covered as determined by the formal provision of bargaining rights. The adjusted rate is used in the OECD database.

1.h. **Collective bargaining coverage rate**

Source: (on line)	EIRO. 2002. "Collective Bargaining Coverage and Extension Procedures", eironline (European industrial relations observatory on line). http://www.eiro.eurofound.eu.int/about/2002/12/study/tn0212102s.html
Number of countries covered:	16 Europe: 16
Period covered:	2000-2001 (one or two observations per country)

Description of the data

Source

Data on coverage may be provided by the bargaining parties or may be available from household or labour force surveys which include questions as to whether the respondent's job is covered by a collective agreement. However, systematic data collection is lacking in several countries. Where possible, collective bargaining coverage has been estimated by the EIRO national centres in these cases.

Coverage & adjustment

There are two variants of the coverage rate, depending on whether or not one adjusts for the group of employees legally excluded from the right to bargain. The unadjusted rate is defined as the number of employees covered by a collective agreement as a proportion of the total number of employees. The adjusted rate is defined as the number of employees covered by a collective agreement as a proportion of the number of employees with the right to bargain (i.e. the total number of employees minus the number of employees excluded from the right to bargain). To arrive at valid cross-national comparisons of bargaining coverage, it is important to differentiate between its two variants, since countries differ in the extent to which employees are excluded from the right to bargain. In this paper, both rates are published.

Multi-level bargaining, as established in several of the countries considered here, created another problem of comparability. Multi-level bargaining is likely to cause certain groups of employees to be covered by several collective agreements at the same time. To avoid multi-counting, the author refers in this study to the number of employees covered by any kind of collective agreement. Another statistical problem may arise from the termination date of the collective agreements. Figures may report only collective agreements in their first year of validity, thus excluding multi-year agreements which originate from an earlier year but are still valid. The author refers in this study to all collective agreements which are valid during the year under consideration. Finally, the author refers only to the formal coverage of collective agreements, as demarcated by their scope.

It was not possible for all countries to correct data with the above definition; in this case, the deviations of the definition are indicated.

1.j. **Collective bargaining coverage rate – Summary table**

Source	No. of country covered	Period covered	Source of data	Adjustment
Rama, Artecona <i>A database of labor market indicators across countries</i>	45	1980-99	Several sources	Not adjusted
ILO <i>World Labour Report 1997/98</i>	43	1993-1996	ILO estimates ILO questionnaire National publications	Not adjusted
Visser, J <i>Unions, unionisation and collective bargaining trends around the world</i>	33	1985-2000	OECD Ochel, W ILO Visser, J.	Not adjusted
ILO <i>Social Dialogue Indicators Project</i>	31	2000-2004	Questionnaire	Not adjusted
Gloden, Wallerstein, Lange <i>Union Centralization among Advanced Industrial Societies</i>	20	1980, 1985, 1990, 1996	Traxler, Blaschke and Kittel OECD	Not adjusted/ Adjusted
Ochel, W <i>Collective Bargaining Coverage in the OECD</i>	20	1960, 65, 70, 75, 80, 85, 95	OECD Surveys	Adjusted
OECD <i>Employment Outlook</i>	19	1980, 90, 94	Surveys	Adjusted
EIRO <i>Collective bargaining coverage and extension procedures</i>	16	2000-2001	Surveys EIRO national centres estimations	Not adjusted/ Adjusted

B.2. Collective bargaining level

2.a. *Collective bargaining level*

Source: ILO. 1997. *World Labour Report 1997/98*. Geneva: International Labour Office.
(on line) <http://www.ilo.org/public/english/dialogue/ifpdial/publ/wlr97/>

Number of countries 63
covered: Americas: 13, Africa: 10, Asia: 10, Europe: 28, Oceania: 2

Period covered: 90's
(one observation per country)

Description of the data

This indicator measures the level at which collective contracts are negotiated and formally set. According to their collective bargaining level, each country has been assigned N/S (National/Sectoral level) or/and C (Company/plant level). Data are also available on the dominant levels of collective bargaining structure over the past 10 years and the trends over the past ten years.

Source

This information is from different sources e.g. ILO questionnaire on trade union membership and collective bargaining coverage (Geneva, 1996), OECD, 1994, J. Visser: trends and variations in European collective bargaining, etc.

2.b. *Collective bargaining level*

Source: OECD. 2004. *Employment Outlook, Chapter 3.*
(on line) <http://www.oecd.org/>

Number of countries 25
covered: Americas: 2, Asia: 2, Europe: 19, Oceania: 2

Period covered: 1970-2000
(at least two observations per country)

Description of the data

This indicator reflects the level at which collective agreements are negotiated and formally set. First, firms and workers may negotiate over terms and conditions of employment at the level of the individual enterprise or establishment. At the other extreme, national unions and employer associations engage in bargaining at the national level, covering the entire economy or most parts of it.

The classification of countries by bargaining level is complicated by the fact that in many countries bargaining occurs at multiple levels. In a number of countries, it is extremely difficult to localise for every single year or period 'the' predominant bargaining level. Ideally, this level would need to be determined by taking account of how many employees are subject to wage bargaining and at what level, and even more importantly, at which level most of the change in wage rates is being determined. For example, a moderate wage increase negotiated at the sectoral level may be largely surpassed by subsequent wage bargaining at local levels. In these cases, the company or establishment level would need to be considered more important than wage fixing at the sectoral level.

The OECD classification has taken into account the possibility of multiple-level negotiations by allowing five levels of collective bargaining:

- 1 = Company and plant-level predominant
- 2 = Combination of industry and company/plant level, with an important share of employees covered by company bargaining
- 3 = Industry-level predominant
- 4 = Predominantly industrial bargaining, but also recurrent central-level agreements
- 5 = Central-level agreements of overriding importance

Source

Secretariat assessments based on national and comparative industrial relations research literature, including the recent classification and scores of wage-setting arrangements by the following authors: Golden et al., 2004; Ochel, 2000; Iversen, 1999, and Traxler et al., 2001.

2.c. *Collective bargaining level*

Source: Golden, Miriam, Peter Lange and Michael Wallerstein. 2004. "Union Centralization among Advanced Industrial Societies: Update to 1995/2000", Version dated 2004.
(on line) Dataset available at <http://www.shelley.polisci.ucla.edu/data>
Version dated July 28, 2004.

Number of countries 17
covered: Americas: 2, Asia: 1, Europe: 13, Oceania: 1

Period covered: 1950-2000

Description of the data

The index for bargaining level measures the bargaining level at which wages are determined. It assigns a score of one, two, three or four to each country for each year. Level one indicates predominantly plant or firm-level wage contracts. Level two indicates industry-level bargaining or coordinated "confederal" firm-level bargaining. Levels three or four can be derived from the indices of government and coordinated "confederal" involvement in wage-setting as follows:

- 1 = plant-level wage-setting
- 2 = industry-level wage-setting
- 3 = central wage setting without sanctions (for non compliance)
- 4 = central wage setting with sanctions (for non compliance)

The authors also present another index: bargaining level at which wages are determined, recoded from original dataset using a more complex scale coding as follow:

- 1 = plant-level wage-setting
- 2 = industry-level wage-setting without sanctions
- 3 = industry-level wage-setting with sanctions
- 4 = central wage-setting without sanctions
- 5 = central wage-setting with sanctions

Source

The measure is based on data collected as part of the Union Centralization among Advanced Industrial Societies Project, which includes extensive information on the structure and practices of union and employer organizations drawn from the organizations themselves and from other data sources in the individual countries.

2.d. **Collective bargaining level**

Source: (hard copy)	Traxler, Franz, Sabine Blaschke and Bernhard Kittel. 2001. <i>National Labour Relations in Internationalized Markets: A Comparative Study of Institutions, Change and Performance</i>. New York: Oxford University Press.
Number of countries covered:	21 countries Americas: 2, Asia: 1, Europe: 17, Oceania: 1
Period covered:	1970-98

Description of the data

This indicator measures the centralization of bargaining level at which wages are determined in the private sector. The indicator is built on 14 different levels of collective bargaining. Ranking is based on the most important level and special scores are assigned in case of equally important levels. They assign a higher centralization score if bargaining at a given level occurs for all groups of workers jointly than if it is group-specific.

- 1 = central/all employees
- 2 = central/group-specific
- 3 = central and industry /all groups
- 4 = central and industry / group-specific
- 5 = combination of central-industry-company and plant/all groups
- 5.42 = combination of central-industry-company and plant
- 6 = Combination of central-industry-company and plant/group-specific
- 7 = industrial /all groups
- 8 = industrial/group-specific
- 9 = combination of industry and company and plant/all groups
- 10 = combination of industry and company and plant/group-specific
- 11 = company and plant/all groups
- 11.5 = company and plant/all groups and group-specific equally important
- 12 = company and plant/group-specific

Source

The measure is based on information gathered in the 'Internationalization, Labour Relations, and Competitiveness Project.' A standardized questionnaire was used by labour relations specialists in each individual country to collect data for that country. The responses were then compared with the existing literature and discrepancies resolved via discussion with the specialists.

2.e. *Collective bargaining level*

Source: (on-line)	Iversen, Torben, "Wage Bargaining, Central Bank Independence and the Real Effects of Money". International Organization, 52, summer 1998. Dataset available at: http://www.people.fas.harvard.edu/~iversen/centralization.htm
Number of countries covered:	16 countries Americas: 2, Asia: 1, Europe: 12, Oceania: 1
Period covered:	1973-93

Description of the data

This is an index of centralization of wage bargaining which combine a measure of union concentration with a measure of prevalent level of bargaining.

The centralization score ranges from 0 to 1. It is calculated as $\sum(W_i P_{ij}^2)^{1/2}$, where W_i is the weight accorded to each bargaining level j ($\sum W_j=1$) and P_{ij} is the share of workers covered by union (or federation) i at level j . The index combines a measure of the prevalent level of bargaining (W_j) with a measure of union concentration (P_{ij}).

The weights were assigned to every bargaining round in each country over the 23-year period from 1973 to 1995. Only three levels of bargaining were used in the classification, reflecting the empirical prevalence of peak-level bargaining, sector-/industry-level bargaining, and firm-/plant-level bargaining.

Following is the classification scheme, which describes the weight (ranging from 0 to 1) assigned to each of the three main bargaining levels. The weight for the three levels sum to 1, with the weight for each level based on the bargaining rights accorded that level.

Decentralized:

0, 0.1, 0.9= plant and firm-level bargaining predominates with some elements of industry level bargaining

0.1, 0, 0.9= National associations and the government set non-enforceable targets for plant-level bargaining, but local organizations retain rights to bargain and to call strikes/lockout decision, and agreements are enforceable. Local bargaining is permitted subject to a peace clause.

Intermediately centralized:

0, 0.8, 0.2= Industry-level organizations monopolize bargaining and strike/lockout decisions, and agreements are enforceable. Local bargaining is permitted subject to a peace clause.

0.1, 0.7, 0.2= National associations and/or the government set non-enforceable targets for lower-level bargaining, but industry-level organizations retain the rights to bargain separate agreements without adherence to a peace clause.

0.4, 0.3, 0.3= National associations negotiate central agreements with some capacity for enforceability, but industry-level organizations retain the right to bargain separate agreement without adherence to a peace clause.

Centralized:

0.8, 0, 0.2= National associations monopolize wage bargaining and agreements are enforceable. Local bargaining is permitted subject to a peace clause.

1, 0, 0= National associations monopolize wage bargaining and agreements are enforceable. Lower-level bargaining is banned.

Source

Information is based on European Industrial Relations Review, data from the Golden-Lange-Wallerstein project, Jelle Visser's comprehensive study of union organizations and a variety of national data sources.

B.3. Collective bargaining coordination

3.a. *Collective bargaining coordination*

Source: OECD. 2004. *Employment Outlook*, Chapter 3.
(on line) <http://www.oecd.org/>

Number of countries covered: 25
Americas: 2, Asia: 2, Europe: 19, Oceania: 2

Period covered: 1970-2000
(at least two observations per country)

Description of the data

This degree of coordination is determined by the extent to which pay negotiations are co-ordinated across the economy and thus able to take into account any consequences of settlements on the full economy.

The index distinguishes five levels of co-ordination. The upper level of coordination corresponds to the category 5 and the lower level to the category 1.

1 = Fragmented company/plant bargaining, little or no co-ordination by upper-level associations

2 = Fragmented industry and company-level bargaining, with little or no pattern-setting

3 = Industry-level bargaining with irregular pattern-setting and moderate co-ordination among major bargaining actors

4 = a) informal co-ordination of industry and firm-level bargaining by (multiple) peak associations b) Co-ordinated bargaining by peak confederations, including government-sponsored negotiations (tripartite agreements, social pacts), or government imposition of wage schedules c) regular pattern-setting coupled with high union concentration and/or bargaining co-ordination by large firms d) government wage arbitration

5 = a) informal co-ordination of industry-level bargaining by an encompassing union confederation b) co-ordinated bargaining by peak confederations or government imposition of a wage schedule/freeze, with a peace obligation.

Source

OECD Secretariat assessments based on national and comparative industrial relations research literature, including the recent classifications and score of wage-setting arrangements by Ochel, 2000, and Kenworthy, 2001.

3.b. **Collective bargaining coordination**

Source: Traxler, Franz, Sabine Blaschke and Bernhard Kittel. 2001. *National Labour Relations in Internationalized Markets: A Comparative Study of Institutions, Change and Performance*. New York: Oxford University Press.
(hard copy)

Number of countries covered: 21 countries
Americas: 2, Asia: 1, Europe: 17, Oceania: 1

Period covered: 1970-1998

Description of the data

This index represents methods of macro-coordination of wages. For each country, it corresponds to the modal values of annual observations of the bargaining rounds per period. The modal values reported per period remove short-term fluctuations. This alternative for measuring wage coordination focuses on coordinating activities by major players, rather than the degree of coordination actually achieved.

There are six principal methods of coordination:

- 1 = inter-associational coordination by the peak unions and employer associations
- 2 = inter-associational coordination by the peak organizations
- 3 = pattern bargaining
- 4 = state-imposed coordination
- 5 = uncoordinated bargaining
- 6 = state-sponsored coordination.

3.c. **Collective bargaining coordination**

Source: (on line)	Kenworthy, Lane. 2001. "Wage-Setting Coordination Scores", in <i>World Politics</i> . Dataset available at: www.emory.edu/SOC/lkenworthy
Number of countries covered:	18 countries Americas: 2, Asia: 1, Europe: 13, Oceania: 2
Period covered:	1960-2000

Description of the data

This variable represents a set of predictions about the degree of coordination likely to be generated by wage bargaining arrangements in various countries. This avoids the problem of limited information about the intentions of various actors in the wage-setting process and the difficulty in ranking such intentions. This variable is not a measure of wage coordination but a hypothesis or prediction about the degree of coordination that is likely to be generated by various wage-setting institutions.

Index is composed by five categories:

- 1 = Fragmented wage bargaining, confined largely to individual firms or plants
- 2 = Mixed industry and firm-level bargaining, with little or no pattern setting and relatively weak elements of government coordination such as a setting of basic pay rate or wage indexation
- 3 = Industry-level bargaining with somewhat irregular and uncertain pattern setting and only moderate union concentration; government wage arbitration
- 4 = Centralized bargaining by peak confederation(s) or government imposition of a wage schedule/freeze, without a peace obligation; informal centralization of industry and firm level bargaining by peak associations; extensive, regularized pattern setting coupled with a degree of union concentration
- 5 = Centralized bargaining by peak confederation(s) or government imposition of a wage schedule/freeze, with a peace obligation; informal centralization of industry-level bargaining by a powerful, monopolistic union confederation; extensive, regularized pattern setting and highly synchronized bargaining coupled with coordination of bargaining by influential large firms.

C. Strikes and lockouts

This part of the report describes the different publications and databases which publish strike and lockout statistics. The research focused on three indicators: number of strikes or lockouts per year, the number of days lost to strikes and lockouts per year and the number of workers involved in strikes and lockouts per year.

The main sources of strikes and lockouts are ILO databases, the Database of Labour Market Indicators from M. Rama and R. Artecona, the Eurostat database and reports from the European Industrial Relations Observatory.

In general, data on strikes and lockouts are drawn from administrative records of conciliation services concerned with labour relations, etc. However, the data may come from several sources, including strike notices, newspaper reports and direct enquiries addressed to employers' or to workers' organizations, or a combination of these.

The largest database in terms of number of countries and observations is the database from the ILO Bureau of Statistics, Laborsta. It includes data for approximately 120 countries during the period 1969 to 2003.

C.1. Number of strikes or lockouts per year

1.a. Number of strikes or lockouts per year

Source: (on line)	ILO. Laborsta database. http://laborsta.ilo.org/
Number of countries covered:	135 Americas: 41, Africa: 28, Asia: 20, Europe: 41, Oceania: 5
Period covered:	1969-2003 varies by country (at least one observation per country)

Description of the data

Source

In general data are drawn from administrative records of conciliation services, services concerned with labour relations, etc. The data may come from several sources, including strike notices, newspaper reports and direct enquiries addressed to employers or to workers' organisations.

Coverage

The data present the number of strikes and lockouts in progress during the year indicated, i.e. those beginning during the year plus those continuing from the previous year. The data cover strikes and lockouts together, as most countries do not distinguish between these two types of action in their statistics.

Any differences from the Resolution concerning statistics on strikes, lockouts and other action due to labour disputes, adopted by the Fifteenth International Conference of Labour Statisticians (Geneva, 1993), are indicated in footnotes in the database.

1.b. Number of strikes or lockouts per year

Source: (hard copy)	Rama, Martin and Raquel Artecona. 2002. "A database of labor market indicators across countries". World Bank.
Number of countries covered:	73 Americas: 19, Africa: 12, Asia: 12, Europe: 28, Oceania: 2
Period covered:	1960/64-1994/99, varies by country (at least one observation per year)

Description of the data

Source

Data are based on records from labour ministries.
Figures are reported under the form of five-year period averages.

Coverage

Data include all sectors of activity. Occasionally, the figures reported are for the industrial sector only.

1.c. Number of strikes or lockouts per year

Source: EIRO. 2003. "Developments in industrial action 1998-2002", eironline (European industrial relations observatory on line).
(on line) <http://www.eiro.eurofound.ie/2003/03/update/tn0303104u.html>

Number of countries 17
covered: Europe: 17

Period covered: 1998-2002
(at least two observations per country)

Description of the data

Source

Data are mainly from ministries of labour, national statistical offices and trade union federations.

Data provide some indications on trends in individual countries from 1998 to 2002 but they are of little use for purposes of international comparisons. The very different sizes of the countries mean that the absolute figures give little indication of the extent to which countries are strike-prone or otherwise in comparison with others.

C.2. Number of working days lost per year

2.a. *Number of working days lost per year*

Source: (on line)	ILO. Laborsta database. http://laborsta.ilo.org/
Number of countries covered:	122 Americas: 35, Africa: 24, Asia: 22, Europe: 35, Oceania: 6
Period covered:	1969-2003, (at least one observation per country)

Description of the data

Source

In general data are drawn from administrative records of conciliation services, services concerned with labour relations, etc. The data may come from several sources, including strike notices, newspaper reports and direct enquiries addressed to employers or to workers' organisations.

Coverage

The data present the number of days not worked as a result of strikes and lockouts in progress during the year indicated. It is usually measured in terms of the sum of the actual working days during which work would normally have been carried out by each worker involved had there been no stoppage.

Any differences from the Resolution concerning statistics on strikes, lockouts and other action due to labour disputes, adopted by the Fifteenth International Conference of Labour Statisticians (Geneva, 1993), are indicated in footnotes in the database.

2.b. *Number of working days lost per year*

Source: (hard copy)	Rama, Martin and Raquel Artecona. 2002. "A database of labor market indicators across countries". World Bank.
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Number of countries covered:	74 Americas: 18 Africa: 11 Asia: 13 Europe: 30 Oceania: 2
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Period covered:	1960/64-1994/99 (at least one observation per country)
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Description of the data

Source

Data are based on records from labour ministries.

Figures are reported under the form of five-year period averages.

Coverage

Data include workers of both sexes in all sectors of activity, or only in the industrial sector when no other information is available.

2.c. *Number of working days lost per year*

Source (on line)	Eurostat. Newcronos database. http://europa.eu.int/newcronos/
Number of countries covered	24 Europe: 24
Period covered	1969-2002 (at least three observations per country)

Description of the data

Source

All data is based on an agreement, generally via the National Statistical Institutes. Eurostat use the same definition and sources as the ILO in 'Labour statistics, Vol. 7, *Strikes and Lockouts* (ILO, Geneva, 1993).

Country-specific notes describe differences compared to the ILO definition.

2.d. *Number of working days lost per year*

Source: EIRO. 2003. "Developments in industrial action 1998-2002", eironline (European industrial relations observatory on line).
(on line) <http://www.eiro.eurofound.ie/2003/03/update/tn0303104u.html>

Number of countries 19
covered: Europe: 19

Period covered: 1998-2002
(at least two observations per country)

Description of the data

Source

Data are mainly from ministries of labour, national statistical offices and trade union federations.

Data provide some indications on trends in individual countries from 1998 to 2002 but they are of little use for purposes of international comparisons. The very different sizes of the countries mean that the absolute figures give little indication of the extent to which countries are strike-prone or otherwise in comparison with others.

C.3. Number of workers involved in strikes or lockouts per year

3.a. Number of workers involved in strikes or lockouts per year

Source (on line)	ILO. Laborsta database. http://laborsta.ilo.org/
Number of countries covered	126 Americas: 35 Africa: 28 Asia: 20, Europe: 37, Oceania: 6
Period covered	1969-2003 (at least one observation per country)

Description of the data

Source

In general data are drawn from administrative record of conciliation services, services concerned with labour relations, etc. The data may come from several sources, including strike notices, newspaper reports and direct enquiries addresses to employers or to workers' organisations.

Coverage

The data present the number of workers involved in strikes or lockouts in progress during the year indicated, which usually includes those involved indirectly as well as those involved directly.

Any differences from the Resolution concerning statistics on strikes, lockouts and other action due to labour disputes, adopted by the Fifteenth International Conference of Labour Statisticians (Geneva, 1993), are indicated in footnotes in the database.

3.b. *Number of workers involved in strikes or lockouts per year*

Source: (hard copy)	Rama, Martin and Raquel Artecona. 2002. "A database of labor market indicators across countries". World Bank.
Number of countries covered:	71 Americas: 17 Africa: 10 Asia: 13 Europe: 29 Oceania: 2
Period covered:	1960/64-1994/99 (at least one observation per country)

Description of the data

Source

Data are based on records from labour ministries.
Figures are reported under the form of five-year period averages.

Coverage

Data include workers of both sexes in all sectors of activity, or only in the industrial sector when no other information is available.

3.c. *Number of workers involved in strikes or lockouts per year*

Source: Eurostat. Newcronos database.
(on line) <http://europa.eu.int/newcronos/>

Number of countries 23
covered: Europe: 23

Period covered: 1969-2002
(at least three observations per country)

Description of the data

Source

All data is based on an agreement, generally via the National Statistical Institutes. Eurostat use the same definition and sources as the ILO in 'Labour statistics, Vol. 7, *Strikes and Lockouts* (ILO, Geneva, 1993).

Country-specific notes describe differences compared to the ILO definition.

3.d. *Number of workers involved in strikes or lockouts per year*

Source: EIRO. 2003. "Developments in industrial action 1998-2002", eironline (European industrial relations observatory on line).
(on line) <http://www.eiro.eurofound.ie/2003/03/update/tn0303104u.html>

Number of countries 19
covered: Europe: 19

Period covered: 1998-2002
(at least two observations per country)

Description of the data

Source

Data are mainly from ministries of labour, national statistical offices and trade union federations.

Data provide some indications on trends in individual countries from 1998 to 2002 but they are of little use for purposes of international comparisons. The very different sizes of the countries mean that the absolute figures give little indication of the extent to which countries are strike-prone or otherwise in comparison with others.

D. Indices relating to social dialogue

This part of the report describes three indices relating to social dialogue.

The first index, Freedom of Association and Collective Bargaining, was developed by David Kucera (ILO). The objective was to code and assign numerical values to instances and seriousness of violations based on application of seven measures relating to freedom of association.

The second index is the Voice Representation Security Index developed by the ILO Programme on Socio-Economic Security in order to measure the protection of collective voice in the labour market. The result is a score for 99 countries calculated by three types of indicators: input, process and output indicators.

The third index is the Industrial (collective) Relation Law Index created by Juan Botero, Simeon Djankov et al. (2004). The authors examine government regulation of industrial relations in a wide range of industrialized and developing countries.

D.1. Freedom of Association and Collective Bargaining (FACB index)

Source: Kucera, David. 2001. "Decent work and rights of work: new measures of freedom of association and collective bargaining", in: *The ILO and the social challenges of the 21st century*, Roger Blainpain and Chris Engels (eds.), The Hague, Kluwer, 2001.
(hard copy)

Number of countries covered: 175

Period covered: Mid 1990

Description of the index

Description

The index codes and assigns a numerical value to instances of violations based on application of measures relating to freedom of association.

The calculation is based on 37 detailed evaluation criteria, which provided a detailed working definition of freedom of association/collective bargaining. The information sources are examined country by country for a given period. A dummy variable is constructed for each country with an observation of a problem in any of the three information sources and is given a value of 1, and no observations in any of the three sources is given a value of 0, for each of the evaluation criteria. Each of the evaluation criteria is assigned a weight of 1, 1.25, 1.5, 1.75 or 2, with higher weights indicating more severe problems. Dummy variables for each country are then multiplied by the weights, with the product summed across the evaluation criteria to yield, for each country, a non-normalised score. Lower scores are taken to indicate greater rights in relation to freedom of association/collective bargaining and higher scores the opposite.

Some of the evaluation criteria are: murder or disappearance of union members or organizers, exclusion for tradeable/industrial sectors from union membership or from rights to establish constitutions and rules.

Source

The indicator of freedom of association/collective bargaining uses three main information sources: The International Confederation of Free Trade Unions (ICFTU) *Annual Survey of Violations of Trade Union Rights*; the United States State Department's *Country reports on Human Rights Practices* and the ILO's ILOLEX, an electronic database of ILO documents relating to international labour standards and their application.

D. 2. A Voice Representation Security Index

Source: (hard copy)	Standing, Guy and Florence Bonnet. 2004. "A Voice Representation Security Index". International Labour Office, Infocus Programme on Socio-Economic Security.
Number of countries covered:	99 Americas: 20 Africa: 23 Asia: 16 Europe: 37 Oceania: 3
Period covered:	1990's

Description of the index

Description

The objective of the index is to measure the protection of collective voice in the labour market, through independent trade unions and employer associations and other bodies able to represent the interests of workers and working communities.

The index is based on 13 indicators which are divided into three parts: the *input indicators* refer to regulations, laws, and formal commitments by the government; *process indicators* refer to the mechanisms and institutions that exist to protect or enhance particular forms of security; and *outcome indicators* refer to statistics on the extent and pattern of insecurity. The index combines the input, process and outcome sub-indexes by summing the three components in which double weight is given to the outcome index. Prior to this, indicators of each sub-index have been normalised.

Output indicators: The authors take account of the country's ratification of the most relevant ILO Conventions. There is a value of 1 if the country has ratified the Convention and 0 otherwise. Three Conventions are concerned: Convention No. 87 on Freedom of Association, Convention No. 98 on the Right to Organise and Collective Bargaining, and Convention No. 141 concerning of Rural Workers' Organizations and their Role in Economic and Social Development. *Process indicators:* whether the country has a national 'tripartite' board or council dealing with labour and social policies, and whether the country's legislature allows non-governmental organizations to operate to promote workers' interest. Some of the *Output indicators:* Unionization rate, change in unionization during the 1990s, Civil Liberties Index.

This index is one of the seven indexes created by this unit of the ILO to evaluate seven forms of security for decent work: labour market security, employment security, work security, job security, skill reproduction security, income security and voice representation security.

Source

Various ILO sources (ILOLEX, The Infocus Programme on Socio-Economic Security database, the ILO *World Labour Report* 1997/98) and the Civil Liberties Index developed by the non-profit organization Freedom House.

D. 3. Industrial (Collective) Relations Law Index

Source: Botero, Juan, Simeon Djankov et al. 2004. "The Regulation of Labor", NBER Working Paper No. 9756.
(on line) Paper and data (1997): <http://www.nber.org/papers/w9756>

Number of countries 85
covered: Americas: 15 Africa: 16 Asia: 20 Europe: 32 Oceania: 2

Period covered: 1997

Description of the index

The authors examine government regulation of industrial relations in a wide range of industrial and developing countries.

The industrial relations laws are aggregated into three sub-indices: i) collective bargaining; ii) workers' participation in the company's management; and iii) collective disputes (strikes and lockouts). These are then aggregated into an index. Separated data are provided from the report for each sub-index.

The first sub-index covers several areas. First, some countries require employers to bargain with organized workers (e.g. trade unions and works councils), while others allow them to refuse to do so. Second, in some countries collective agreements are extended to third parties as a matter of public policy at the national or sectoral levels, whereas in others they only extend to non-member workers at the plant level, or only bind the parties to the agreement. Third, the laws of a few countries include rules requiring the exclusive hiring of union members in certain industries or factories ("closed" shops).

The second sub-index captures worker participation in management, which may take the form of mandatory appointment of workers to the board of directors, or works councils. Most countries do not provide such mechanisms for worker participation. These two variables form the sub-index of worker participation in management.

The third sub-index covers the regulation of collective disputes. This area covers i) legal strikes, ii) procedural restrictions on strikes, iii) employer defenses, iv) compulsory arbitration, v) constitutional protection of the right to strike.

This index is one of three indexes which measures labour regulation. The authors gather data on three components of the legal framework for worker protection (i) employment laws, (ii) industrial (collective) relations laws, and (iii) social security laws.

E. Index of opinion on social dialogue

E. 1. Cooperation in Labour-Employer Relations Indicator

Source: (hard copy)	Cornelius, Peter. 2003. <i>The Global Competitiveness Report 2002-2003</i>. World Economic Forum.
Number of countries covered:	80 Americas: 22 Africa: 7 Asia: 15 Europe: 33 Oceania: 2
Period covered:	2002

Description of the index

The report publishes two indexes: the Growth Competitiveness Index and the Microeconomic Competitiveness Index. The indicator on cooperation in labour-employer relations is part of the Microeconomic Competitiveness Index.

Senior business leaders were asked their opinion on labour-employer relations in their countries. The respondent was asked to choose a number between 1 (generally confrontational) and 7 (generally cooperative) that best reflects their perception.

The Microeconomic Competitiveness Index examines the underlying conditions defining the sustainable level of productivity in each of the 80 countries covered in the report. It is constructed from measures drawn primarily from a survey of more than 4700 senior business leaders. This index is composed of two sub-indexes: one that reflects the degree of company operations and strategy and another that mirrors the quality of the national business environment. The cooperation in Labor-Employer relations Indicators is part of the first sub-index.

In order to ensure that the Survey data are sufficiently representative of each economy, the authors worked very closely with partner institutes. The target sample of firms is designed to have a distribution across economic sectors of the economy that is proportional to the distribution of the country's labour force sectors, excluding agriculture, as much as possible. Partners' institutes then prepared a roster of firms from which they were asked to choose firms randomly within these broad sectors. Participation in the survey is purely voluntary and the respondent is typically a company's Chief Executive Officer or a member of its senior management.

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