

Decent work statistical indicators: strikes and lockouts statistics in the international context

By Igor Chernyshev*

Introduction¹

The promotion of *decent work* for all persons everywhere and striving towards reducing its deficits became the pivotal pylon and organisational framework of the International Labour Organisation (ILO) in 1999 after its Director General Juan Somavia introduced and described decent work as “opportunities for women and men to obtain decent and productive work in conditions of freedom, equity, security and human dignity”.² This definition of decent work includes the following six dimensions: (i) opportunity for work; (ii) productive work; (iii) freedom of choice of employment; (iv) equity in work; (v) security at work; and (vi) dignity at work.

However, in order to know what progress a country has made towards achieving decent work or to determine to what extent countries differ in terms of creating, assuring and offering their working population a decent work environment which encompasses the afore-mentioned six dimensions, a set of explicitly defined statistical indicators is required.

Based on the above brief description of decent work, a core set of thirty decent work statistical indicators has been developed to enable the ILO, *inter alia*, to devote more resources to the development of new indicators and increase cross-country comparability of the existing indicators³. Therefore, the ILO core set of Decent Work statistical indicators should not be considered as something final and complete. Importantly, the thirty indicators, grouped under 10 aspects of decent work⁴, are supplemented by an eleventh group, which is intended to describe characteristics of the economy and population that form the context for determining levels, patterns and sustainability of decent work. All the thirty-plus indicators are currently being tested in different countries for their primary data availability and universal applicability under the different national circumstances.

For the moment, it is proposed to measure the tenth aspect of decent work “Social dialogue and workplace relations” through the following three indicators: *union density rate*; *collective wage bargaining coverage rate* and *strikes and lockouts*.

In this article an in-depth study of one indicator of the above aspect of decent work is made, namely “strikes and lockouts”. Based on the analysis of the three major international programmes which aim at the regular publication of international labour disputes statistics, the author argues that currently the measure which best reconciles the number of days lost due to industrial action with the varying sizes

* ILO Policy Integration Department, Statistical Development and Analysis. The views and opinions expressed in this article are those of the author and do not necessarily reflect those of the International Labour Office or of its Policy Integration Department.

¹ The author is indebted to Jackie Davies (Employment Earnings and Productivity Division, UK Office for National Statistics) for inspiration and rich background material found in her most comprehensive articles on international comparison of strike statistics regularly published in the “Labour Market Trends”, Office for National Statistics, London. Special thanks are extended to Karen Taswell (Senior Labour Statistician, ILO Bureau of Statistics) for peer review of the article and very useful comments.

² ILO, *Decent Work: Report of the Director General, International Labour Conference, 87th Session*. Geneva 1999.

³ Anker, R., Chernyshev, I., Egger, Ph., Mehran, F. and Ritter, J., *Measuring Decent Work with Statistical Indicators*. Policy Integration Department, Statistical Development and Analysis, Working Paper No. 2. International Labour Office, Geneva, October 2002.

⁴ Ten aspects of Decent Work: 1. Employment opportunities; 2. Unacceptable work; 3. Adequate earnings; 4. Decent hours; 5. Stability and security of work; 6. Combining work and family life; 7. Fair treatment in employment; 8. Safe work environment; 9. Social protection; 10 Social dialogue and workplace relations.

of countries' employed population and provides a reasonable basis for international comparisons is the *rate of days not worked due to strikes and lockouts (per 1.000 employees)*.

The article is supplemented by Annex 1 presenting the Synoptic Table "*Strikes and Lockouts Statistics: coverage and methodology*" covering 97 countries and territories. The Synoptic Table has been constructed on the basis of methodological descriptions of the national statistics of strikes and lockouts published in the ILO "*Sources and Methods: Labour Statistics, Vol. 7, Strikes and Lockouts*" and "*Sources and Methods: Labour Statistics, Vol. 9, Transition Countries*", and disseminated on the ILO's statistical Web site (<http://laborsta.ilo.org>).

1. Social dialogue and workplace relations

As is noted in the ILO Working Paper "Measuring Decent Work with Statistical Indicators"⁵, 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 channelled through collectively chosen representatives or involve direct interaction between the worker and employer. The ability of workers to organise 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. In a more general sense, social dialogue is any type of negotiation, consultation or exchange of information between, or among, representatives of governments, employers and workers, on issues of common interest relating directly to work and related economic and social policies.

2. Strikes and lockouts

Definition

One measure of the failure of social dialogue is the recourse to strike or lockout. Industrial action – strike and lockout – is perhaps the most high profile aspect of social dialogue, at least in terms of media coverage and public impact and attention. At the same time in certain circumstances, the absence of strike action could indicate the absence of the right to strike and/or weak social dialogue.

The ILO "*Resolution concerning statistics of strikes, lockouts and other action due to labour disputes*"⁶ gives the following definitions for statistical purposes:

A *strike* is a temporary work stoppage effected by one or more groups of workers with a view to enforcing or resisting demands or expressing grievances, or supporting other workers in their demands or grievances.

A *lockout* is a total or partial temporary closure of one or more places of employment, or the hindering of the normal work activities of employees, by one or more employers with a view to enforcing or resisting demands or expressing grievances, or supporting other employers in their demands or grievances.

Workers involved in a strike: Workers directly involved in a strike are those who participate *directly* by stopping work. Workers *indirectly* involved in a strike are those employees of the establishments involved, or self-employed workers in the group involved, who did not participate directly by stopping work but who were prevented from working because of the strike.

⁵ Anker, R., Chernyshev, I., Egger, Ph., Mehran, F. and Ritter, J., *Measuring Decent Work with Statistical Indicators*. Policy Integration Department, Statistical Development and Analysis, Working Paper No. 2. International Labour Office, Geneva, October 2002, p. 58.

⁶ International Labour Office. *Resolution concerning statistics of strikes, lockouts and other action due to labour stoppages*, adopted by the Fifteenth International Conference of Labour Statisticians (January 1993). Current International Recommendations on Labour Statistics. 2000 Edition, p. 79. This Resolution is also available on the Web at: <http://www.ilo.org/public/english/bureau/stat/list.htm>.

Workers involved in a lockout. Workers directly involved in a lockout are those employees of the establishments involved who were directly concerned by the labour dispute and who were prevented from working by the lockout. Workers indirectly involved in a lockout are those employees of the establishments involved who were not directly concerned by the labour dispute but who were prevented from working by the lockout.

Data Sources

In general, data on strikes and lockouts are drawn from the 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' organisations, or a combination of these. The major sources used by countries are listed below:

- Labour relations records
- Special data collection
- Labour inspectorate records
- Labour-related establishment survey
- Records of employers' or workers' organisations
- Administrative reports

The most comprehensive international source of data on strikes and lockouts is the ILO database, LABORSTA, which contains annual series for 141 countries, areas and territories from 1969 onwards. Data on strikes and lockouts have been published in the *ILO Yearbook of Labour Statistics* since its first edition (1935), and the series contained in LABORSTA are disseminated on the ILO's statistical Web site (<http://laborsta.ilo.org>). They are accompanied by detailed methodological descriptions of the data sources. More specifically, statistics on strikes and lockouts are published in Chapter 9 of the Yearbook, which contains the following four tables covering a different number of countries each.

Table 9A: Strikes and lockouts, by economic activity

Regions	Number of countries covered	
	2001	2002
Africa	10	13
America	28	28
Asia	15	17
Europe	29	31
Oceania	2	2
Total	84	91

Source: ILO Yearbook of Labour Statistics, 2001 and 2002.

The table presents 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. If a strike or lockout covers several economic activities, the information about it is usually given under each of the activities involved. As

a result, the total number of strikes and lockouts shown for the total may be less than the sum for the component activities.

Table 9B: Workers involved, by economic activity

Regions	Number of countries covered	
	2001	2002
Africa	10	13
America	22	23
Asia	15	17
Europe	30	32
Oceania	2	2
Total	79	87

Source: ILO Yearbook of Labour Statistics, 2001 and 2002.

The data include both workers involved indirectly and those involved directly.

Table 9C: Days not worked, by economic activity

Regions	Number of countries covered	
	2001	2002
Africa	9	11
America	21	22
Asia	15	17
Europe	29	31
Oceania	2	2
Total	76	83

Source: ILO Yearbook of Labour Statistics, 2001 and 2002.

The number of days 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.

Table 9D: Rates of days not worked, by economic activity

Regions	Number of countries covered	
	2001	2002
Africa	1	1
America	3	3
Asia	2	2
Europe	15	15
Oceania	2	2
Total	23	23

Source: ILO Yearbook of Labour Statistics, 2001 and 2002.

This table presents the severity rates of strikes and lockouts, generally calculated in terms of the number of days not worked per 1.000 workers. The rates included in the above table are calculated by countries and sent to the ILO in response to the Statistical Questionnaire for the *Yearbook of Labour Statistics*.

Coverage

In line with the above ILO Resolution, the programme of statistics on strikes and lockouts should in principle cover the whole country, all branches of economic activity and all sectors of the economy,

and should be developed so as to be consistent to the fullest extent possible with other economic and social statistics⁷.

The programme should attempt to cover all strikes and lockouts. Where relevant, it could also cover other action due to labour disputes.

The statistics should cover all employees directly involved. If possible, employees indirectly involved should also be covered, and the data relating to them should be collected and presented separately. Where relevant to national circumstances and practices, self-employed workers directly involved in action due to labour disputes could also be covered, and the data relating to them collected and presented separately.

Measurement

The following three measures of temporary work stoppages are usually recorded and published:

- Number of strikes and lockouts.
- Number of workers involved.
- Days not worked due strikes and lockouts.

The criterion recommended by the 15th ICLS to identify a single strike or a single lockout (the first measure above) is the labour dispute in question. In this case, all temporary work stoppages, due to one labour dispute, one establishment or more establishments, at the same or different times, are considered as a single strike or lockout. This is the approach used in many countries; however some treat each stoppage in each establishment as a single strike or lockout, with higher numbers resulting in cases of multiple stoppages due to a single dispute and multiple establishments involved in the same dispute.

As for the second measure, each worker involved directly or indirectly at any time during the action should be counted in the number of workers involved, whether the involvement was for the full duration or only part of it, according to the international recommendations. However, national practices vary: most commonly, the number of workers in the establishments involved is taken as a proxy for the number of workers involved. Unless a strike or lockout is establishment-wide, this leads to an overestimate of the numbers involved.

The third measure is considered as the most useful, since the number of strikes does not distinguish between either the duration of the strike or its effect on industry, and the measure of workers involved in strike activity gives no information about duration. The 15th ICLS recommended that the amount of time not worked by workers involved should be estimated in terms of normal hours of work, and converted to days on the basis of the number of normal hours of work per day or per shift for each category of workers concerned. Where possible, it should be estimated for each day of the strike or lockout for all workers involved, and the total calculated for the full duration of the strike or lockout. The reality differs in many countries, where the number of days not worked is more often the product of the number of workers involved and the duration of the strike or lockout.

However, in order to permit meaningful comparison of the statistics made, for example between different periods, branches of economic activity, regions and countries, account needs to be taken of the difference in employment size and changes in the number of workers exposed to the risk of the industrial action. Taking the above into consideration, the “*rate of days not worked per 1.000*

⁷ International Labour Office. *Resolution concerning statistics of strikes, lockouts and other action due to labour stoppages*, adopted by the Fifteenth International Conference of Labour Statisticians (January 1993). Current International Recommendations on Labour Statistics. 2000 Edition, p. 80.

employees” is considered to be among the most useful measures for comparing information at both the national and international levels. This indicator relates the amount of time not worked due to strikes and lockouts to the total number of salaried employees, which is better suited for comparisons than to show absolute numbers of strikes and lockouts.

It is, however, important to keep in mind that study of the different national practices shows that in many countries the statistics on strikes and lockouts are not precise estimates. This is due principally to measurement difficulties, particularly with respect to the number of workers involved and the number of days not worked, as well as obtaining information about strikes and lockouts.

3. National differences

Acknowledging the need to harmonize national statistics related to labour disputes in order to, *inter alia*, facilitate their international comparability, the 15th International Conference of Labour Statisticians (1993) adopted the “*Resolution concerning statistics of strikes, lockouts and other action due to labour disputes*” setting out a uniform set of definitions for the recording of work stoppages and data collection procedures. However, the way in which statistics of strikes and lockouts continue to be produced by relevant national authorities differs greatly between countries.

Few countries seem willing to invest significant resources in their systems of statistics on strikes and lockouts, with the consequence that the data compiled may not be as comprehensive as they could be. This may be one of the reasons why not all countries have taken into account the international recommendations. Perhaps more importantly is the fact that the statistics are compiled to meet the needs of countries, generally as part of their labour relations systems, which in turn are determined by national laws and regulations. Where there are differences between these national laws and regulations, these will usually be reflected in the statistics. Another point to bear in mind in this connection is the impact of changes in national legislation on the comparability of data within a country over time.

For example, the international recommendations state that all work stoppages due to a single labour dispute should be counted as one strike or lockout, as long as the period between stoppages is not more than two months⁸. Nevertheless, different criteria are used in some countries to identify a single strike or lockout. For instance, each stoppage in each establishment may be considered to be one strike or lockout. In these cases, the number of strikes and lockouts and the number of workers involved will be often higher than they would have been if the international recommendations had been followed, and the total number of workers involved may sometimes exceed the total employment in the economic activity concerned⁹.

Thus, criteria for inclusion in the statistics may vary in terms of: (a) the length of the industrial action; (b) the number of workers involved; (c) the nature of the industrial action involved; or (d) whether or not the action is official or unofficial; (e) the reference period used. Some countries measure hours lost due to industrial action, while others measure days not worked. Some countries do not produce any statistics for certain measures, such as the number of strikes and lockouts, or days not worked (particularly in the case of general strikes).

The data published often cover strikes and lockouts together, as most countries do not distinguish between these two types of action in their statistics. However, in some countries, the statistics may cover only strikes and lockouts above a certain size only (in terms of the number of workers involved and/or duration of time not worked).

⁸ International Labour Office. *Resolution concerning statistics of strikes, lockouts and other action due to labour stoppages*, adopted by the Fifteenth International Conference of Labour Statisticians (January 1993). Current International Recommendations on Labour Statistics. 2000 Edition, p. 80.

⁹ See *ILO Yearbook of Labour Statistics, 2001*. Chapter 9: Strikes and Lockouts. International Labour Office. Geneva 2001.

To show two examples, the national figures used by the OECD to provide figures for time lost through labour disputes per 1,000 workers in its “*Main economic indicators*” are derived as follows for Finland and Italy¹⁰:

Finland: *Definition* - data refer to the number of days lost due to labour disputes involving any one or more of the following: temporary work stoppage, refusal to work, go-slows. *Coverage* - all establishments in the public and private sectors in the whole country are covered; disputes lasting less than one hour are not measured. *Collection* - Statistics Finland collects data from the Finnish Employers' Confederation for establishments of organised employers and for establishments of unorganised employers. The public sector reports directly to Statistics Finland.

Italy: *Definition* - data refer to the number of hours lost in cases of disputes whether they are directly due to working conditions or to problems external to work such as political or other national events etc. *Coverage* - all strikes of whatever duration in the public and private sectors are included, though not all stoppages will come to the attention of the local police, who collect the data. *Collection* - data are provided to the ISTAT by local administrations.

Finally, the data collection procedure varies from one country to another. Thus, out of the 97 countries covered by the *ILO: Sources and Methods: Labour Statistics, Vol. 7, Strikes and Lockouts* and *Vol. 9, Transition Countries*¹¹, 56 countries have a legal obligation to report the occurrence of a strike or a lockout. There is no such obligation for the remaining 41 countries. Incidentally, beginning 1999 Greece no longer collects data on labour disputes.

4. Cross-country comparisons

International comparisons programmes

In addition to the statistics on strikes and lockouts currently disseminated by the ILO, according to the information available at the Statistical Development and Analysis, ILO Policy Integration Department, there are three major programmes aiming at the regular publication of international comparisons of labour disputes statistics with brief explanation of differences in national practices. They are: the Office for National Statistics (London, United Kingdom), the European Foundation for the Improvement of Living Standards and Working Conditions (Dublin, Ireland) and the OECD (Paris, France).

The above three programmes are limited in their coverage to the European Union and OECD member States. The data they publish are not reconciled for the discrepancies revealed but are taken directly from the national or international data bases with simple manipulations made to calculate ratios. More specifically, the following major sources are usually used:

- Office for National Statistics (ONS): *Working days not worked due to labour disputes*: ILO, EUROSTAT, national statistical offices. *Employees*: OECD¹².
- European Foundation for the Improvement of Living Standards and Working Conditions: national statistical offices, Ministries of Labour and EUROSTAT¹³.
- OECD: *ILO Yearbook of Labour Statistics*.¹⁴

¹⁰ European Foundation for the Improvement of Living and Working Conditions. *EIRO: European industrial relations observatory on-line*. March 2000.

¹¹ International Labour Office. *Sources and Methods: Labour Statistics, Vol. 7, Strikes and Lockouts*. Geneva 1993. *Sources and Methods: Labour Statistics, Vol.9, Transition Countries*. Geneva 1999.

¹² *Labour Market Trends*. April 2001. Office for National Statistics. London.

¹³ European Foundation for the Improvement of Living and Working Conditions. *European industrial relations observatory on-line*. March 2000.

Data for the same indicators and reference years published by the above programmes are not always the same. Data published by the ONS and the OECD seem to have the highest matching rate.

A measure for cross-country comparisons

As has been mentioned above, countries usually record and publish the following three measures of temporary work stoppages:

- Number of strikes and lockouts.
- Number of workers involved.
- Days not worked due strikes and lockouts.

However, there is a strong argument that while the above measures provide some indication of trends in individual countries, they are of little use for purposes of international comparisons. The very great difference in sizes of countries means that absolute figures give little indication of the extent to which countries are "strike-prone" or otherwise in comparison with others. As has already been observed earlier, the only measure which enables this to be compared is the *number of days not worked per 1.000 employees*. Table 1 and Figure 1 below provide a numerical illustration of the above argument in favour of this indicator.

Country	1997	1998	1999
Austria	1,913	0	0
Belgium	210,889	NA	NA
Denmark	101,700	3,173,000	NA
Finland	103,712	133,203	13,411
France	393,380	122,533	NA
Germany	52,000	16,102	NA
Greece	190,300	189,400	NA
Ireland	74,508	37,374	28,191
Italy	1,164,285	543,857	662,571
Luxembourg	0	22,000	0
Netherlands	14,600	33,200	NA
Norway	6,972	286,407	NA
Portugal	80,077	94,755	56,918
Spain	1,790,100	1,263,500	1,048,200
Sweden	23,577	1,677	NA
UK	234,700	282,400	NA

Source: EIRO, April 2002.

The data in Table 1 should be read in conjunction with the following notes.

- **Belgium:** the data are from the National Office of Social Security, based on days not worked by workers subject to social security contributions due to strikes and lockouts.

¹⁴ *Main Economic Indicators*. OECD. Paris 2001.

- **Finland:** the data are from Statistics Finland labour disputes statistics; the 1999 figure refers to January-June only.
- **France:** the data refer to individual days not worked.
- **Germany:** the data are from the Federal Employment Service.
- **Greece:** the Ministry of Labour gives data in hours, rather than days, lost - 1,522,577 in 1997 and 1,515,347 in 1998; the data in the table are a rough estimate based on the assumption of an eight-hour day.
- **Ireland:** the data are from the Central Statistical Office; the 1999 data refer to the first half of the year only.
- **Italy:** the data are from the ISTAT; the 1999 data refer to January-September only; the data do not include "labour disputes originating from outside the employment relationship" (e.g. political strikes).
- **Luxembourg:** the 1998 figure is an estimate.
- **Norway:** data from Statistics Norway.
- **Portugal:** the statistics are from DETEFP, Ministry of Labour and Solidarity; the data for 1999 relate to the first half of the year only.
- **Spain:** the data are from Ministry of Labour and Social Affairs (MTAS) strike statistics; the data for 1999 relate to January-September only.

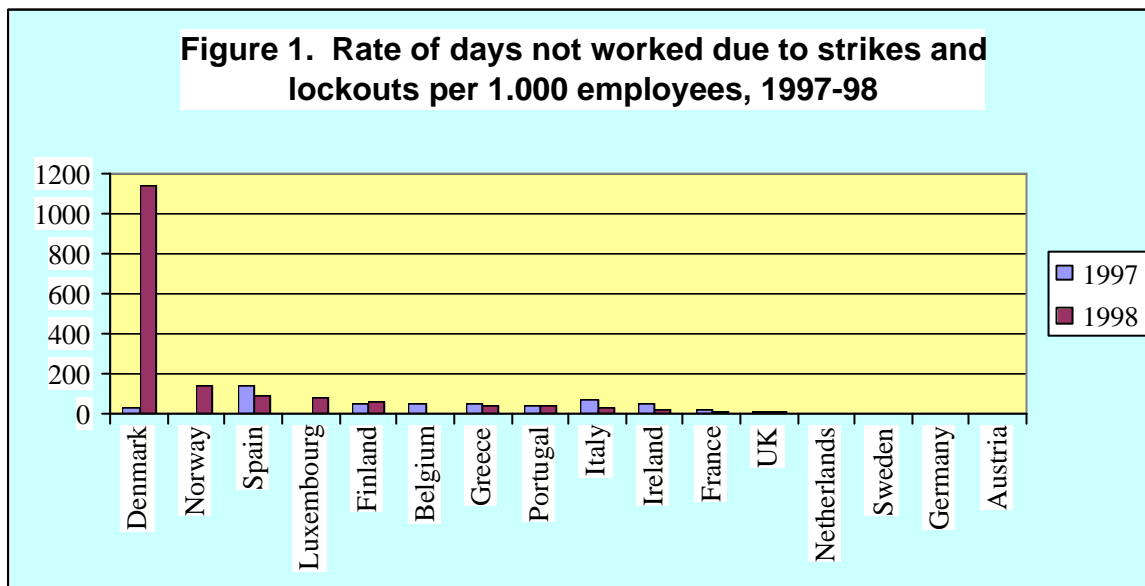


Figure 1 should be read in conjunction with the following notes.

- **Belgium:** estimates based on the data for working days lost given in Table 1 and Eurostat data on total employment.
- **Denmark:** estimates based on the data for working days lost given in Table 1 and Eurostat data on total employment.
- **Finland:** the data are from Statistics Finland labour disputes statistics; the 1999 figure refers to January-June only.
- **France:** the data are estimates.
- **Germany:** estimates based on the data for working days lost given in Table 1 and Eurostat data on total employment.
- **Greece:** estimates based on the data for working days lost given in Table 1 and Eurostat data on total employment.
- **Ireland:** the data are from the Central Statistical Office; the 1999 figure refers to the first half of the year only.

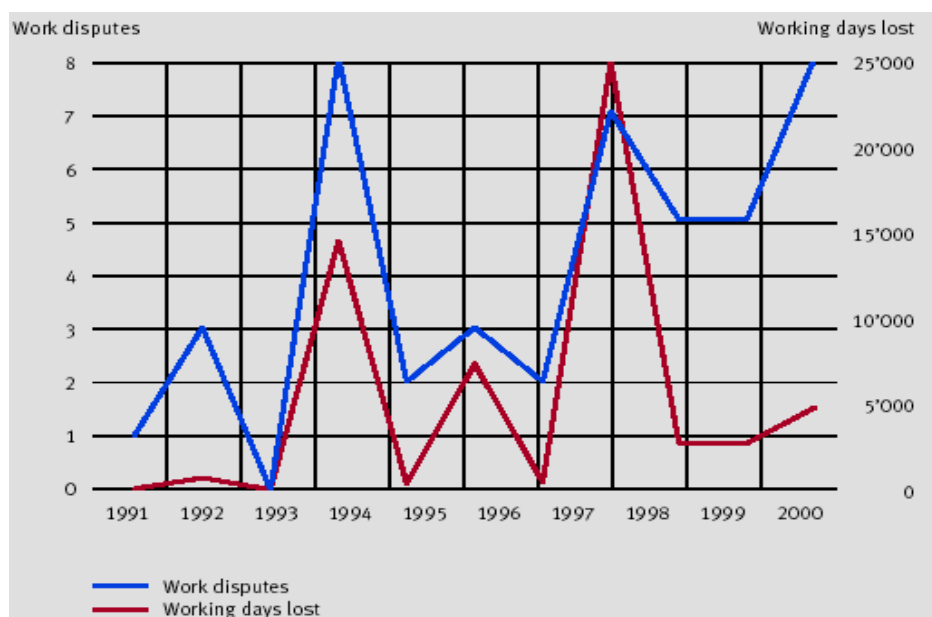
- **Italy:** approximate data, using constant figures on the number of employees in 1997, because of a change in the statistical series; the figures do not include "labour disputes originating from outside the employment relationship" (e.g. political strikes).
- **Luxembourg:** estimates based on the data for working days lost given in Table 1 and Eurostat data on total employment.
- **Norway:** data from Statistics Norway.
- **Portugal:** statistics from DETEFP, Ministry of Labour and Solidarity.
- **Spain:** estimates based on the data for working days lost given in Table 1 and Eurostat data on total employment.
- **Sweden:** estimates based on the data for working days lost given in Table 1 and Eurostat data on total employment.

According to Figure 1, on average during 1997 and 1998, the highest levels of industrial action were found in Denmark (589 days lost per 1,000 workers) and Spain (118 days lost) and the lowest in Austria (no days lost) and Germany (one day lost). For 1997 and 1998, the countries can be divided into three groups:

- Countries where industrial action was at very low levels, with an average of no more than 11 working days lost per year for every 1,000 workers - Austria, Germany, the Netherlands, Sweden and the UK.
- Countries where industrial action was at moderate levels, with an average of 12-60 working days lost per year for every 1,000 workers - Belgium, Finland, France, Greece, Ireland, Italy, Luxembourg and Portugal.
- Countries where industrial action was at relatively high levels, with an average of over 60 working days lost per year for every 1,000 workers - Denmark, Norway and Spain.

However, the data for two consecutive years cannot give a proper picture of national situations and trends. For example, it is very unlikely that Denmark would be in the group of countries with a relatively high level of strikes were it not for essentially "one-off" events in 1998. There are also major disparities between the 1997 and 1998 figures for Norway and Luxembourg. Such a "cyclical" nature of strike-triggering actions can partially be explained by the fact that revision of collective wage bargaining agreements, which in many countries is accompanied by intensified industrial actions, usually takes place every 3-5 years.

Proceeding from the above, one can further argue that averages over longer time periods portray a country's level of industrial action in a more realistic way and therefore should be used for international comparisons. The case of Switzerland shown in Figure 2 is a good illustration of the importance of longer time averages for analytical purposes.

Figure 2. Strike Statistics: Switzerland, 1991-2000¹⁵***Comparability: problems encountered***

Stemming from the above deliberations as well as experience gained by the three major programmes of international comparisons, a conclusion can be drawn that the comparisons of international disputes statistics are complicated by difference in methods of compiling data and the criteria used for inclusion/coverage of work stoppages in the statistics. In particular, differences in Figure 1 may be significant when coverage is taken into account. According to the country descriptions documented in the ILO *Sources and Methods: Labour Statistics, Vol. 7, Strikes and Lockouts*¹⁶, most of the OECD countries rely on voluntary notification of disputes to a national or local government department, backed up by media reports.

None of the 16 OECD countries shown in Table 1 aim to record the full effects of stoppages at work. For example, the majority of countries do not measure working time lost at establishments whose employees are not involved in a dispute, but are unable to work because of shortages of materials supplied by establishments that are on strike. Similarly, other forms of labour disputes, such as go-slow, work-to-rules and overtime bans are not generally recorded.

There are important differences between countries in the criteria that exist to determine whether a particular stoppage will be entered in the official records. Most countries exclude small stoppages from the statistics, the threshold being defined in terms of the number of workers involved, the length of the dispute, the number of days lost, or a combination of all or some of these. These differences are summarised in the Synoptic Table "*Strikes and Lockouts Statistics: coverage and methodology*" presented as Annex 1¹⁷. The United Kingdom, for example, excludes disputes involving fewer than ten workers or lasting less than one day, unless the aggregate number of days lost exceeds 100. Germany adopts the same criteria but has other exclusions that make direct comparisons with the United Kingdom difficult. In Costa Rica, the statistics include strikes lasting two hours and longer with at least three workers involved. A number of other countries' thresholds are similar but any difference in thresholds affects the number of working days lost that are recorded.

¹⁵ Swissmem PANORAMA 2002, p.27.

¹⁶ See relevant descriptions in *Sources and Methods: Labour Statistics, Vol. 7, Strikes and Lockouts*. International Labour Office. Geneva 1993.

¹⁷ Countries covered by the ILO *Sources and Methods, Vol. 7: Strikes and Lockouts*, Geneva 1993 and *Vol.9: Transition countries*, Geneva 1999.

There are several countries where the threshold used is particularly high: e.g. the United States and Denmark. The United States includes only those disputes involving more than 1,000 workers. In Denmark, the threshold used is 100 working days lost. Hence, the strike rates for the United States and Denmark are not directly comparable with those for the United Kingdom and Germany and other countries with similar thresholds.

There are a number of significant differences that may be of importance when making international comparisons. Some countries exclude the effects of disputes in certain industrial sectors. For example, Portugal omits public sector strikes and general strikes and Japan excludes days lost in unofficial disputes, whereas Columbia includes unofficial and general strikes, and Cyprus statistics cover all the industrial sectors. Political stoppages are not included, for instance, in the data for Turkey, the United Kingdom and the United States. However, political strikes are included in the data for Columbia.

The inclusion or exclusion of those workers indirectly involved in a stoppage varies between countries. Half of the OECD countries, including Australia, Belgium, France, New Zealand, the Netherlands and the United States, attempt to include them. Among the countries that exclude them are Canada, Germany, Japan and Italy. This leads these countries to record a lower number of working days lost than countries that include indirectly affected workers in their statistics. Consequently, even though Germany, for example, has a similar threshold for inclusion of disputes to that used in the United Kingdom, comparisons between the two countries' records should be made with care. It is worth noting however, that evidence from the United Kingdom suggests that working days lost by workers indirectly affected by strikes are few: from the total number of working days lost in 1999, less than 9 per cent were lost by workers indirectly involved in strike action¹⁸.

Also, the 15th ICLS recommended that the data for a particular reference period should cover all strikes and lockouts in progress during the period, i.e. those beginning during the period plus those continuing from the previous period¹⁹. This is the practice in most countries, but there are some differences: e.g. Argentina, Mexico, Puerto Rico, the United States and Belgium, where the number strikes and lockouts refers only to those beginning in the reference period (also for workers involved in Argentina, Puerto Rico, US and Belgium, and for days lost for Puerto Rico).

5. Improving international comparability: empirical evidence of theoretical limitations

Comparability: basic requirements

Comparability of statistical variables and conditions of comparability can be considered both in respect of an individual country (temporal) and of a number of countries (spatial)²⁰.

International comparability can be carried out either between countries with a homogeneous political, economic and labour relations structure or between different groups of countries. Obviously, the latter case is much more complicated and demands a special set of uniform measures which should satisfy the parties involved in such an exercise.

Generally speaking, "comparability" is always relative to some norm. We say that data between the two countries are "comparable" if the:

¹⁸ See Davies, J., *International comparisons of labour disputes in 1999*, Labour Market Trends, April 2001. Office for National Statistics. London, 2001.

¹⁹ International Labour Office. *Resolution concerning statistics of strikes, lockouts and other action due to labour stoppages*, adopted by the Fifteenth International Conference of Labour Statisticians (January 1993). Current International Recommendations on Labour Statistics. 2000 Edition, p. 82.

²⁰ For an elaboration, see I. Chernyshev, *ILO-Comparable Employment and Unemployment Estimates: A Technical Guide*. STAT Working Paper No. 91-3. International Labour Office. Bureau of Statistics. Geneva 1991.

- Population covered has been defined in the same way: common definition.
- Population covered has been and delineated in the same way: common coverage.
- Concepts to be measured have been defined in the same way: common unit of measurement.
- Same type of data collection instrument has been used: common procedure.
- Reference periods are the same: common time frame.

Virtual reality

As follows from the information presented in Section 4, there are practically no statistics of strikes and lockouts currently produced by the ILO member States, which can satisfy the above requirements.

In spite of the fact that the ILO *Resolution concerning statistics of strikes, lockouts and other action due to labour disputes* provides a solid and universally accepted conceptual framework for the relevant national statistical programmes, it has been adopted only in a limited number of countries. Moreover, even when adopted, it has not been followed in full. However, countries generally adapt the international recommendations on statistics to suit their own needs and circumstances, and may not give high priority to international comparability.

It is therefore highly problematic to make direct cross-country comparisons based on statistics of strikes and lockouts available at the ILO, as is the case for other types of statistics, particularly those associated with administrative or legislative systems.

In theory, one can arrive at internationally comparable statistics after a series of adjustments have been made to reconcile the national data. However, it seems that in the case of statistics of strikes and lockouts it would be quite difficult, if not impossible, to achieve a full comparability between 10-15 countries. The above argument is based on the assumption that the national data should be at least reconciled for the following discrepancies: (a) the length of the industrial action required (threshold) before the action is recorded; (b) the number of workers who must be involved for the action to be recorded; (c) the nature of the industrial action involved; (d) whether or not the action is official or unofficial, etc.; (e) the number of workers indirectly affected by strikes and working days lost due to their indirect involvement. Recalling the data collection procedures described in Section 3, the above-mentioned argument appears to be rather convincing.

Conclusions and recommendations

In this article, it has been argued and an attempt made to prove that comparisons of international dispute statistics are complicated largely by differences in methods of compiling data and the criteria used for inclusion of work stoppages in the statistics. Hence, *while statistic of strikes and lockouts are useful for showing relative levels of working days lost through disputes in each country and how they change overtime, an exact comparison between countries is not possible.*

Consequently, the only measure which reconciles the number of days lost due to industrial action with differing country sizes and provides a reasonable basis for international comparisons is the *rate of days not worked due to strikes and lockouts (per 1,000 employees).*

For this measure the numerator and denominator should, ideally have the same coverage. For example, if agriculture is excluded from the coverage, the figure for the total number of workers

should also exclude agriculture. Similarly, if self-employed workers are excluded from the coverage, they should also be excluded from the total number of workers²¹.

However, in practice many countries calculate the above rates with data on total employment (see Figure 1 above), which should not prevent their practical use.

In view of the fact that the three major international comparison programmes use ILO data and that the OECD's programme is based exclusively on the statistics published by the ILO, one may be prone to conclude that they are of acceptable quality for international use. This leads to the general conclusion that when it is not possible to have similar coverage of the nominator and denominator the rate may be based on total employment. It is in this optic that statistics published in Table 9C (*Days not worked, by economic activity*) and Table 2B (*Total employment, by economic activity*) of the ILO *Yearbook of Labour Statistics* can be recommended for direct use in the computation of rates of days not worked due to strikes and lockouts and consequent overall cross-country comparisons.

However, in the latter case, in order to better understand the significance of this indicator and/or gauge its dimension in countries with an important informal economy, it is advisable to analyse it in conjunction with another indicator. The rate based on the formal employment is a good candidate for such an exercise. Conversely, if total employment were used systematically as the denominator the rates would obviously be lower, and would not reflect the reality of the industries and sectors covered in the national statistics. Also, for this reason, international comparisons should not only be made at the overall national level, but at the industrial level where possible as well.

Furthermore, taking into consideration the difficulties of direct international comparisons of the statistics of strikes and lockouts discussed in Sections 4 and 5, it might be useful to analyse the incidence of industrial actions against the background of such indicators as labour force participation rate, unemployment rate, time-related underemployment rate, fatal injuries rate, inadequate pay rate (as well as wage arrears where appropriate), union density rate, consumer price indices and employment in the informal economy.

Finally, stemming from the "cyclical" nature of peak incidences of strikes and lockouts observed in many countries, it may be further recommended to compute 3-5 years averages of the above rates in order to both better portray the dynamics of industrial actions and facilitate their analysis and international comparison.

As has already been mentioned, the ILO is in the process of developing a comprehensive and widely acceptable system of Decent Work statistical indicators. The author would, therefore, welcome comments and suggestions for the improvement and/or further development of *strikes and lockouts* statistics indicator described in this article in terms of both its accurate measurement and cross-country comparability.

* * *

REFERENCES

Anker, R., Chernyshev, I., Egger, Ph., Mehran, F. and Ritter, J., *Measuring Decent Work with Statistical Indicators*. Policy Integration Department, Statistical Development and Analysis, Working Paper No. 2. International Labour Office, Geneva, October 2002.

Chernyshev, I., *ILO-Comparable Employment and Unemployment Estimates: A Technical Guide*. Working Paper No. 91-3. International Labour Office. Bureau of Statistics. Geneva 1991.

²¹ International Labour Office, *Resolution concerning statistics of strikes, lockouts and other action due to labour stoppages*, adopted by the Fifteenth International Conference of Labour Statisticians (January 1993). Current International Recommendations on Labour Statistics. 2000 Edition, p. 82.

- Davies, J., *International comparisons of industrial stoppages for 1986*. Employment Gazette. June 1988, London 1988.
- Davies, J., *International comparisons of labour disputes in 1998*. Labour Market Trends. April 2000. Office for National Statistics, London 2000.
- Davies, J., *International comparisons of labour disputes in 1999*. Labour Market Trends. April 2001. Office for National Statistics, London 2001.
- Davies, J., *Labour disputes in 2001*. Labour Market Trends. November 2002. Office for National Statistics, London 2002.
- European Foundation for the Improvement of Living and Working Conditions. *EIRO: European industrial relations observatory on-line*. March 2000.
- International Labour Office, *Decent Work: Report of the Director General, International Labour Conference, 87th Session*. Geneva 1999.
- International Labour Office, *ILO Yearbook of Labour Statistics, 2001*, Geneva 2001.
- International Labour Office, *ILO Yearbook of Labour Statistics, 2002*, Geneva 2002.
- International Labour Office. *Resolution concerning statistics of strikes, lockouts and other action due to labour stoppages*, adopted by the Fifteenth International Conference of Labour Statisticians (January 1993). Current International Recommendations on Labour Statistics. 2000 Edition.
- International Labour Office, *Sources and Methods: Labour Statistics, Volume 7, Strikes and Lockouts*. Geneva 1993.
- International Labour Office, *Sources and Methods: Labour Statistics, Volume 9, Transition Countries*. Geneva 1999.
- Monger, J., *International comparisons of labour disputes in 2000*. Labour Market Trends. January 2003. Office for National Statistics, London 2003.
- OECD, *Main Economic Indicators*, Paris 2001.
- Swissmem PANORAMA 2002.