

***The World Labor Group Database: Conceptualization, Measurement, and Data Collection Procedures***

The World Labor Group (WLG) database is one of the key empirical sources used in this book to document world-historical patterns of labor unrest. This database originates in a collective research effort by a group of graduate students and faculty (The World Labor Research Working Group) at the Fernand Braudel Center (Binghamton University) in the 1980s. The outcome of the group's work was published as a special issue of *Review* – hereafter referred to as “the special issue” (see Silver, Arrighi, and Dubofsky 1995). The present author subsequently expanded and updated the database produced in the first phase of the project.

This appendix describes the WLG data collection project including issues of conceptualization, measurement, and data collection procedures (see Silver 1995a in the special issue for a more in-depth treatment of these issues). The next section discusses the conceptualization of labor unrest used by the World Labor Group (see also Chapter 1). The second section discusses measurement issues, the third section discusses data collection procedures, and the fourth section discusses the outcome of various reliability studies. Finally, Appendix B reproduces the data collection instructions used for compiling the WLG database.

***I. The Concept of World-Scale Labor Unrest***

Efforts to gain an adequate picture of the long-term, world-scale patterns of labor unrest face special problems of conceptualization and measurement. Workers' resistance has taken a variety of forms over the space and time of the world economy. While it might at first seem intuitively obvious, the concept of labor unrest as a world-historical phenomenon and how one might go about measuring it are far from obvious. In Chapter 1, we

discussed the broad conceptualization of labor unrest used here, taking off from Marx's and Polanyi's conceptualizations of labor power as a "fictitious commodity." Here we focus on clarifying concretely the types of actions that would be included and excluded in a collection of labor unrest events built on this conceptualization. In so doing, we focus on two distinct components of the labor unrest concept in turn – *labor* and *unrest*.

### *Labor Unrest*

What makes *labor* unrest distinctive from other forms of social unrest is that it is rooted in the proletarian condition; that is, it is composed of the resistances and reactions by human beings to being treated as a commodity. The resistances that encompass *labor* unrest include both:

- (a) struggles against being treated as a commodity at the point of production (i.e., Marx's focus on the struggle over the extraction of surplus labor); and
- (b) struggles against being treated as a commodity on the labor market (i.e., Polanyi's focus on the struggles for protection against the ravages of the self-regulating market system).

Labor unrest includes resistance to commodification by:

- (a) workers who have been thoroughly proletarianized and who struggle without any thought of escaping wage labor, and
- (b) workers who are only recently or partially proletarianized and who struggle with the aim of escaping the proletarian condition.

In sum, the relevant actors included in the concept of *labor* unrest are all those reacting against the effects of the commodification of their labor power.

The commodification of labor power creates a wide arena of struggles:

- (a) resistance to the prolongation, intensification, and degradation of work at the point of production;
- (b) resistance to low or falling real wages and mass unemployment on the labor market; and
- (c) resistance to forced proletarianization and the destruction of customary ways of life, whether through the direct use of violence or the destruction of alternatives to wage labor.

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The targets of these acts of resistance to the proletarian condition are varied.

- (a) *They may target the employer directly* – strikes, slowdowns, or sabotage to protest the prolongation, intensification, or degradation of work; similar actions aimed at raising wages or establishing an internal labor market that protects the firm’s workers against the vicissitudes of the labor market; machine-wrecking, land occupations by landless agricultural workers, or desertions to the nonwage rural sector by workers seeking to escape the proletarian condition.
- (b) *They may target the state* – seek to achieve their aims by eliciting state intervention on their behalf (or by stopping pro-capitalist state intervention). Such acts of resistance include demonstrations, general strikes and other forms of agitation on behalf of policies restricting the length of the working day or regulating other conditions of work at the point of production. They also include similar acts aimed at eliciting state action designed to lessen the impact of a “formally free” labor market such as a legal minimum wage, government spending to create employment, or basic food subsidies. Likewise included are community revolts and revolutions against states (particularly colonial states) perceived as assisting in the forced creation of a proletariat through the willful destruction of established (non-capitalist) means of livelihood through taxation, enclosures, or military campaigns.

Thus, the proletarian condition produces a wide range of resistances traceable to the negative effects of the commodification of labor power. These forms of resistance constitute, as a set of social actions, the category of *labor* unrest.

Historically, however, workers are embedded in ethnic, religious, national, and gender communities/identities, and the solidarities that bind them are often those of such communities. The “banners” raised in struggles are often those of communal identification rather than specifically those of working-class identification. In some cases, the overlap between class and ethnicity, nationality, or gender is so close that struggles taking place under a communal banner can be easily identified as *labor* unrest (i.e., as struggles against the proletarian condition). In other cases, however, workers make alliances with other classes and their struggles become merged (sometimes submerged) in cross-class struggles that receive some of their momentum from resistances to the proletarian condition but that become difficult to

label comfortably as *labor* unrest. In these cases, we are confronted by a practical difficulty since we do not want to ignore the proletarian component, but we do not want to include the nonproletarian component within our concept of *labor* unrest. Such movements, then, must be kept in a separate intermediate category, neither simply included nor simply excluded from the study of *labor* unrest.

### Labor *Unrest*

Before we proceed with a discussion of measurement issues, we must further specify the *unrest* component of our concept. As discussed in the previous section, labor unrest is composed of acts of resistance by human beings to being turned into and/or treated as commodities. Many of these acts of resistance are easily identifiable as labor *unrest* because the actors themselves openly declare that their purpose is to challenge and/or contain exploitation. Certain kinds of open protests (e.g., strikes, boycotts, riots, demonstrations) combined with certain kinds of open demands (e.g., increased wages, decreased work loads, government subsidization of basic food and transportation, full-employment) are easily identifiable as acts of labor unrest.

However, there is a whole other sphere of hidden acts of resistance (undeclared and unacknowledged class warfare), which precisely because it remains undeclared is often not easily identifiable as unrest. These acts of resistance are what James Scott (1985) has dubbed “the weapons of the weak” or “everyday forms of resistance” (e.g., foot dragging, soldiering, shoddy workmanship, undeclared slowdowns, pilfering, false compliance, desertion, absenteeism, feigned ignorance, slander, sabotage, “accidents”). According to Scott (1985: 33):

What everyday forms of resistance share with more dramatic public confrontations is of course that they are intended to mitigate or deny any claims made by superordinate classes or to advance claims vis-à-vis those superordinate classes . . . Where everyday resistance most strikingly departs from other forms of resistance is in its implicit disavowal of public and symbolic goals. Where institutionalized politics is formal, overt, concerned with systematic, de jure change, everyday resistance is informal, often covert, and concerned largely with immediate de facto gains.

The masking of de facto resistance with apparent acquiescence and conformity often leads observers to overlook these forms of unrest. However, these forms have been found to be pervasive in situations ranging

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from the labor-coercive economy of the Rhodesian mines studied by Van Onselen (1976) to the Ford assembly line studied by Beynon (1973) and the Hungarian machine shop studied by Harazti (1977).

Basing himself on the African labor studies literature, Cohen (1980: 12–17) enumerated a wide range of “hidden forms of resistance.” These include desertion (to the nonwage sector or systematic labor turnover within the wage sector); community withdrawal or revolt to escape proletarianization;<sup>1</sup> task, time, and efficiency bargaining (e.g., quota restrictions, soldiering, bamboozling the time-and-motion men); and sabotage (to give workers a break from the machine-driven pace of work or to forestall the introduction of labor-saving and job-eliminating new machinery). We also include all these acts of resistance within our concept of labor unrest when they are widespread, collective practices.

However, Cohen included in his concept of hidden forms of resistance actions by workers that are not consciously intended to be acts of resistance. Thus, he argued that sickness and accidents, even when *not* acts of volition, “do indeed constitute forms of resistance” because they are responses to unacceptable working and living conditions (1980: 18–19). Here we must depart. Our concept of labor unrest only includes *purposeful* (although not necessarily openly declared) acts of resistance by workers to the commodification of their labor power.

Finally, among his hidden forms of resistance, Cohen also included the creation of a contraculture by workers, drug use, and belief in otherworldly solutions. Here we must say “it all depends on the context.” That is, in some contexts, these are indeed forms of labor *unrest* or resistance; in other contexts, they are merely forms of adaptation to the commodification of labor. It depends on whether these acts function as part of efforts to resist exploitation or as part of efforts to forget about exploitation.<sup>2</sup> Thus, religion may be the “opium of the masses” (e.g., exploitation at work can be tolerated because the meek will be rewarded in an afterlife), or it may provide community networks and a counterideology of justice and struggle for the oppressed (e.g., the active church role in the workers’ struggles in Poland and Brazil). Likewise, alcohol and drugs may be the “opium of the masses” (making hard labor and authoritarian relations at work easier to withstand), or it may be part of a general resistance to giving employers the effective use

<sup>1</sup> This is hidden only in the sense that it is often interpreted as wars of pacification or proto-nationalism, with its labor component ignored.

<sup>2</sup> Cohen himself is ambiguous about whether these always constitute resistance.

of the commodity labor-power (as absenteeism and shoddy workmanship take their toll). Similar distinctions apply to contracultures.

Hirschman's (1970) categories of exit, voice, and loyalty are helpful in further clarifying our concept of labor *unrest*. Hirschman (1970: 30) defined "voice" as any "attempt to change, rather than escape from an objectionable state of affairs." Our concept of labor *unrest* includes all acts that can be classified as voice. Hirschman (1970: 4–5) argued that both voice and certain forms of "exit" play a "recuperative role": They make capitalists aware that changes in the way of doing business are necessary if they are to survive. Our concept of labor *unrest* includes all those forms of resistance that play a recuperative or transformatory role. Apart from voice, these include certain types of exit and everyday forms of resistance. These are discussed next, in turn.

The types of exit included are: (1) attempts to escape proletarianization through collective revolt or desertion (noisy exit); and (2) attempts to improve wages or working conditions through systematic turnover in situations of labor shortage (voiceless exit). Systematic turnover in a situation of labor shortage is often recognized by capitalists as a form of worker resistance and as a problem that requires an active and transformatory response. Examples range from Ford's Five Dollar Day to the elimination of racial restrictions on residence in South Africa. Conversely, exit/migration out of labor-surplus firms or regions is not included in our concept of labor *unrest*. The workers' exit is not experienced *relationally* as resistance to exploitation. There is no significant "recuperative" (or transformatory) impact on the firms or areas from which the surplus workers depart.

The everyday forms of resistance discussed earlier can be categorized as *feigned* loyalty. These acts involve the purposeful muting of one's critical opinions and a roundabout resistance to exploitation. This roundaboutness and muting of open protest is a result of the weakness of the subordinate groups and the ability of the dominant groups to impose severe sanctions on those who do not obey. According to Hirschman (1970: 96–7), when organizations make the price of both exit and voice (protest) too high through the threat of severe sanctions (e.g., loss of livelihood, loss of life), "they also largely deprive themselves of both recuperative mechanisms." In other words, the resistances of the weak, given that they are masked by feigned loyalty, do not send signals about the need for change to capitalists; that is, they do not set off the processes of restructuring of social and economic relations that characterize the impact of more overt forms of protest.

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Hirschman's argument probably holds true when hidden forms of labor unrest are scattered and sporadic individual acts; however, when they reach a widespread and pathological level, we would argue that unmistakable signals are indeed sent to employers about the need for restructuring. One relevant example would be the widespread drunkenness, absenteeism, and shoddy workmanship that plagued Soviet enterprises in the 1970s and 1980s. It could be argued that these forms of labor unrest, rather than more overt protests, were critical in prompting the initial revolution from above (*perestroika*). Thus, our concept of labor unrest includes the "weapons of the weak" *when these forms of resistance are widespread, collective practices*, but it excludes these same acts if they are deemed to be isolated and sporadic individual acts.

Finally, acts of labor *unrest* are generally acts of *inter-class* (labor–capital) struggle (i.e., unrest directed against capitalists or against the state as an intermediary or as an agent of capital). However, as was discussed earlier, workers are embedded in ethnic, religious, national, and gender communities/identities. These identities may be incorporated into mobilizing slogans, or they may be used to build cross-class alliances. However, they may also be used to mobilize one group of workers (e.g., whites, men) against competition from another group of workers (e.g., Blacks, women). In these cases, workers' struggles are directed against other workers (e.g., job demarcation strikes by white/male workers protesting the employment of Black/women workers). However, these struggles are also directed against the capitalists. They seek to restrict the ability of the capitalist to treat all workers as equal commodities. Thus, however unsympathetic, they will be counted as forms of labor unrest.

What then about movements that produce racist cross-class alliances (e.g., apartheid) or, for that matter, alliances between workers and capitalists such as those between the U.S. textile or autoworkers and their respective bosses agitating for restrictions on foreign competition for their industry? Like the cross-class movements discussed in the previous section (e.g., national liberation movements), these movements are impossible to label simply as labor unrest, but at the same time we do not want to ignore their proletarian component. Thus, they must also be treated as part of an "intermediate" category of multiclass movements that can be neither simply included nor simply excluded from our analyses.

To sum up, the concept of labor unrest that we aim to measure is composed of all the (observable) resistances and reactions by human beings to being treated as a commodity, both at the point of production and in the

labor market. It includes all consciously intended, open acts of resistance. It also includes hidden forms of resistance when these are widespread, collective practices. Finally, the concept of labor unrest includes acts by workers who organize themselves under communal banners other than labor, when there is a clear overlap between class and community, and when the struggle is directed at resisting the proletarian condition.

## *II. The Measurement of World-Scale Labor Unrest*

This section first discusses the limits of previously existing data sources on labor unrest before moving on to a discussion of the advantages and disadvantages of using newspapers as a source on world labor unrest.

### *The Uses and Abuses of Official Strike Statistics*

Government-collected strike statistics are the most commonly used indicator of labor unrest or labor militancy. Strike statistics have much to recommend them, but there are several major difficulties involved in relying solely (or even mainly) on strike statistics in a study of labor unrest – especially one that seeks to analyze labor unrest as integral to the processes of long-term, world-historical social change.

The meaning of a strike is considerably different at different points in time and space. Strikes that occur in a time and place where they are illegal cannot be easily equated with a strike in a time and place where they have become legal, routine, and routinized. Yet, strike statistics necessarily make this equation. The following example illustrates the problem. There was a historically high level of strike activity in the United States in the 1950s and 1960s; most observers, however, attributed this fact to the institutionalization of labor–capital conflict after the Second World War. The official strike became accepted as a normal bargaining tool in contract negotiations. Thus, a large volume of strikes is not necessarily an indication of a correspondingly large volume of labor unrest. Treating a strike in Franco’s Spain as indicative of roughly the same “amount” of labor unrest as a strike in the 1960s United States (or 1990s Spain for that matter) is a dubious equation and procedure.<sup>3</sup>

<sup>3</sup> Along these same lines, Piven and Cloward (1992) have complained of a widespread tendency to conflate such routine and nonnormative collective action in the social science literature on protest.



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Moreover, as discussed in Section I, the strike is far from the only or even main form in which labor unrest is expressed. Labor unrest may manifest itself primarily in nonstrike forms of struggle ranging from slowdowns and sabotage to riots and demonstrations. The prevalence of nonstrike forms of struggle may be especially significant at two ends of a spectrum: that is, they may be especially prevalent where strikes are illegal and open confrontation impossible or where strikes have become routinized and generally meaningless as a significant form of struggle against the proletarian condition. Thus, the assumption (frequently made) that strikes can serve as a proxy indicator for all forms of labor unrest is unacceptable and potentially quite misleading.

Finally, strike statistics are often collected according to criteria that exclude what may be very relevant strikes from the point of view of measuring labor unrest. For example, most countries at one time or another have excluded “political strikes” from their official count of strike activity. Yet, as was discussed in Section I, workers frequently make demands on the state (e.g., through political strikes) as part of their efforts to resist the proletarian condition.

Beyond the question of whether strike counts are good indicators of labor unrest, there is perhaps a more obvious problem in using strike statistics in studies of long-term, world-historical social change. This limitation is the insufficient temporal and geographical scope of existing strike series data. Only a handful of countries have data series that date back to the beginning of the twentieth century. For most countries, there are no strike statistics at all, or they begin only after the Second World War. Furthermore, with the exception of the United Kingdom, all countries’ series contain major gaps (e.g., during the period of fascism and world war for Germany, France, and Italy or for a period in the early twentieth century when the U.S. government decided to discontinue strike data collection). Moreover, data collections covering nonstrike forms of unrest are even more rare.<sup>4</sup>

Some studies attempt to skirt the difficulties involved in the limited geographical scope of strike statistics by (implicitly or explicitly) assuming that it is possible to generalize from national cases (for which data are available) to other countries or even the world. Many studies have raised questions about the wisdom of making generalizations about so-called advanced

<sup>4</sup> For works that discuss the methodological problems involved in the collection and use of official strike statistics, see Edwards (1981), Hyman (1972), Jackson (1987), Knowles (1952), Shalev (1978), and Franzosi (1995), among others.

industrial countries (e.g., Korpi and Shalev 1979). Generalizing from this group of countries to rest of the world would seem to be an even more dubious practice.

Moreover, as discussed in Chapter 1, proceeding on the basis of national case studies forces us to assume that each case evolves in isolation from the other cases. If, as we assume, a single set of world-level processes link workers in different parts of the globe, then the only acceptable way of proceeding is by building up a picture of the functioning of the system as a whole in order to understand (or forecast) the trajectory of each case. We need to build up a picture of the patterning of labor unrest over time for the world-economy as a whole to be able to proceed with our work.

Thus, we find ourselves without a readily available indicator of labor unrest, which would be acceptable for the study of long-term, world-historical social change.

### *Newspapers as a Source of Reliable Information*

Faced with these difficulties, the World Labor Research Working Group at the Fernand Braudel Center decided to create a new database on world labor unrest. This database has been compiled from reports of labor unrest in *The Times* (London) and the *New York Times* – the major newspapers of the two world hegemonic powers of the nineteenth and twentieth centuries.

Tapping major newspapers as a source to construct indexes of protest has become a fairly widespread and developed practice in the social sciences.<sup>5</sup> As Burstein (1985: 202) wrote: “In recent years . . . a small but growing group of social scientists has concluded that valid time-series data on many of the more visible aspects of politics could be collected by drawing on an obvious but hitherto untapped data source – major newspapers.” Burstein collected data on civil rights demonstrations and other protest activities from the *New York Times* and concluded that the data from this source “convey a generally accurate picture of the events and time trends analyzed . . . and are far better than any other actual or potentially available data.” Likewise, the Tillys (1975: 315) concluded from their study of collective violence in

<sup>5</sup> Burstein (1985), Danzger (1975), Jenkins and Perrow (1977), Koopmans (1993), Korzeniewicz (1989), Kowalewski (1993), McAdam (1982), Paige (1975), Snyder and Kelly (1977), Snyder and Tilly (1972), Sugimoto (1978a, 1978b), Tarrow (1989), Tilly (1978, 1981), and Tilly et al. (1975) are among those who have used the newspapers to construct indexes of protest. On methodological issues, see Franzosi (1987, 1990).

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France that “the newspaper scanning provides a more comprehensive and uniform sample of events than any alternative source available to us.”

These studies use information gleaned from national newspapers to measure occurrences of protest within that state. What is innovative about the World Labor Group’s project is that we attempted to create reliable indicators of *world-level* labor unrest from newspaper reports. We rejected the route of aggregating information from national newspapers. The amount of work involved in reading and recording all reports of labor unrest over the last century from a major national newspaper for *each* country of the world was simply beyond reason. Moreover, even if the data collection effort were feasible, intractable problems of comparability of data sources would arise in attempting to combine the information retrieved from many different national sources into a single world indicator. Our solution has been to rely on the major newspapers of the world’s hegemonic powers. Our reasoning was as follows:

1. *The Times* (London) and the *New York Times* have had world-level information-collecting capabilities throughout the twentieth century. As a result, geographical bias rooted in the technological limits of newspaper reporting during the period of our research is not a major problem, especially with regard to *The Times* (London) (see Dangler 1995 in the special issue).
2. Our choice of *The Times* (London) and the *New York Times* was also intended to minimize the problem of geographical bias in reporting due to editorial policies (as opposed to technological constraints). World hegemonic powers, by definition, take the entire world as their sphere of interest or influence. The reporting of both sources is global (see Dangler 1995 and Appendix B in the special issue).
3. While the reporting of both newspapers is global, both also show regional biases, apparently in favor of areas that have historically been considered spheres of influence or interest, for example, South Asia and Australia for *The Times* (London) and Latin America for the *New York Times* (see Appendix B in the special issue). By combining the two sources into a single indicator of world labor unrest, we may counterbalance the regional biases of each source taken separately.<sup>6</sup>

<sup>6</sup> Moreover, the regional biases appear to be less significant when it comes to reporting labor unrest waves. Both sources tend to report on waves of unrest, even for countries where their routine coverage is not extensive.

In sum, the World Labor Research Working Group began with the premise that reliable indicators of world-scale patterning of labor unrest could be constructed from *The Times* (London) and the *New York Times*. Section IV summarizes the results of reliability studies carried out on the World Labor Group database in order to either validate or invalidate this claim. First, however, we will describe the steps taken to create the World Labor Research Working Group Database on Labor Unrest.

### *III. Data Collection Procedures*

Individual members of the research group read the indexes of *The Times* (London) and the *New York Times* to identify reports of labor unrest.<sup>7</sup> A first round of data collection covered the *New York Times* from 1870 to 1990 and *The Times* (London) from 1906 to 1990. In a second phase of the project, the database was updated in the same manner through 1996. In addition, during this second round, the Palmer's Index (on-line) was used as a source of reports on labor unrest in *The Times* (London) from 1870 to 1905, since the official index to *The Times* only begins in 1906.<sup>8</sup>

For each report of labor unrest found in the newspapers' indexes, we recorded onto a specially designed standard recording form the month, day,

<sup>7</sup> Several measures were taken to ensure that the collection of labor unrest mentions from the indexes was as complete and accurate as possible. The central difficulty was in achieving completeness: relevant mentions of labor unrest might be buried throughout the index (under country, industry, or other subject headings). Moreover, the organization of the indexes varied for each newspaper source across time. A first stage in the data collection process, thus, involved a series of tests and revisions of coding procedures; the data recording instructions were successively refined so as to maximize inter-coder reproducibility of results. Inter-coder reliability assessments were also used as part of the training procedure for coders.

Second, despite our very limited resources, we decided to assign two data collectors, working independently, to each year of the *New York Times* index to maximize the thoroughness of the search for labor unrest mentions. When the collection of data from the newspaper index for a given year was completed by both coders, coding sheets were compared and combined so that all the citations identified by either or both coders were included in the database. A measure similar to Burstein's (1985: 211–12) "inclusion reliability" was used to assess both the performance of individual coders and the reliability of individual years. We used the ongoing assessments of individual coder performance in making coding assignments. That is, we tried to ensure that at least one "high-confidence" coder was assigned to each year. Because of our limited resources, this complete duplication of the data collection work was not possible for *The Times* (London) index. Nevertheless, the present author was responsible for almost the entire London *Times* series, thus strengthening our confidence in the relative completeness and consistency of *The Times* database.

<sup>8</sup> The data-recording instructions used in the project are reproduced as Appendix B. In addition a prepackaged training kit was developed and used to both train and evaluate coders.

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year, page and column of the article, the location of the action (country, city), the action-type (e.g., strike, riot), and the industry or industries involved.<sup>9</sup>

Reports on labor unrest in all countries of the world were recorded, with one exception. Because of the totally disproportionate criteria for reporting on domestic news, incidents of labor unrest in the United States and the United Kingdom were not recorded from the *New York Times* and *The Times*, respectively. Instead, we relied on the U.S. coverage of *The Times* (London) and the U.K. coverage of the *New York Times*, for our U.S. and U.K. data.

The end result of the first two phases of the project was a complete census of all mentions of labor unrest around the world in the indexes. Specifically, the database covers from 1870 to 1996 for both the *New York Times* and *The Times* (London).<sup>10</sup> To put it concretely, we have recorded on to our standard form a total of 91,947 mentions of labor unrest around the world, with information on the year, action-type, country, city, and industry for each, as well as the article, page, date, and column number.<sup>11</sup>

<sup>9</sup> The recording unit used is the “mention” of labor unrest by the index. Thus, for example, the same strike may be mentioned several times because it is reported on in several articles. Each mention (corresponding to a different article) was recorded and counted separately. Likewise, a single article may report on a number of different acts of labor unrest (e.g., several strikes in different locations, a strike *plus* a riot in the same location). Each action, even if reported on in the same article, is recorded and counted separately. If, on the other hand, the index repeated the same exact information twice at two different spots in the index, the duplicate was eliminated from the database. The assumption underlying this data-recording procedure is that more intense acts of labor unrest will be reported on more frequently than less intense acts. Our procedure, thus, gives more weight to an action that is mentioned in two or more articles than an action that is only mentioned once. It would be possible at some future date to aggregate mentions into separate events; however, this would be a very labor-intensive project. Since, for this book, the data are only being used to identify major waves of labor unrest, rather than study specific event sequences in depth, there would be no particular payoff to such an effort.

<sup>10</sup> The *New York Times* is based entirely on the official index, while *The Times* (London) is based on a combination of Palmer’s Index (on-line) for 1870–1905 and the official index from 1906 to 1996.

<sup>11</sup> For this stage of the project, we relied on the newspapers’ indexes as the source. The assumption is that the newspapers’ indexes accurately reflect the contents of the newspaper, or that errors are sufficiently random so as not to have any significant effect on our overall results. Comparisons of sample years coded from the indexes and from the newspapers on microfilm and through the Nexis electronic archive indicate: (1) recording information from the indexes results in a slight undercounting of the number of articles with mentions of labor unrest; (2) this undercounting seems to be consistent across time and space, thus having no significant effect on the types of indicators we are constructing from the data at this point; (3) the time-savings involved in identifying labor unrest mentions from the indexes rather than from the newspapers on microfilm is significant (cutting the time by at least one-half); (4) at this point, the lost information is not sufficient to warrant the

This information was then entered into two computer files, one file for the mentions from the *New York Times* and one for those from *The Times* (London). Two time series of mentions were created for each country<sup>12</sup> – one based on each newspaper. For the analyses in this book, these two series were then combined into a single series for each country – the number of mentions of labor unrest being the sum of the two sources for each year. Figures 4.1, 4.2 and 4.3 as well as Table 4.1 are based on the resulting 1870–1996 time series.

Figures 2.1, 3.3, and 3.4 as well as Tables 2.1, 3.1, and 3.2 disaggregate the combined time series by country and/or industry. Country and industry codes were assigned to each of the 91,947 mentions of labor unrest and disaggregated country and industry time series were created. For Tables 2.1, 3.1, and 3.2, industry- and country-specific high points of labor unrest were identified using the criteria spelled out in Chapter 2 (footnotes 1 and 3) and Chapter 3 (footnote 5).

### *IV. Assessing the Reliability of the World Labor Group Database*

It is necessary to emphasize that the data collection project was not designed to produce a count of *all or even most incidents* of labor unrest that have taken place in the world over the last century. The newspapers report on only a small fraction of the labor unrest that occurs. Instead, the procedure is intended to produce a measure that reliably indicates *the changing levels* of labor unrest – when the incidence of labor unrest is rising or falling, when it is high or low – *relative to* other points in time or locations in space.<sup>13</sup> In

increased time commitment necessary to collect the data from the newspapers on microfilm. Finally, although the Nexis and microfilm searches yield more information, the index search nevertheless often uncovered important citations that eluded multiple attempts with complex Nexis search-strings.

<sup>12</sup> Names and boundaries of countries as they existed in 1990 are used throughout. In the cases where names and/or borders were different at some time in the past, an effort was made to identify the exact location (e.g., city, region) of the labor unrest and to group those mentions together with the “country” of which that area is now a part. Thus, for example, strikes that were indexed under the heading “Austro-Hungarian Empire” were counted as part of Hungary if they took place in Budapest and as part of Austria if they took place in Vienna. Likewise, 1990 borders have so far been retained for post 1990 data, despite the recent major wave of border changes.

<sup>13</sup> The number of incidents of labor unrest recorded in the database in any given year has no absolute meaning; rather its meaning (high/low, rising/falling) is relative to the number of reported incidents in other years.

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particular we are interested in being able to identify *waves* or high points of labor unrest across the time and space of the world economy.

Reliability studies for seven countries are reported on in the special issue. Wave years of labor unrest for each country were identified using two different criteria, which are modified versions of the method used to calculate strike waves by Shorter and Tilly (1974).<sup>14</sup> To qualify as a wave year:

1. The number of mentions of labor unrest in that year had to be at least 50 percent greater than the average of the preceding five years and
2. The number of mentions of labor unrest in that year had to be greater than the mean number of mentions for that country over the entire eighty-five-year period. (At the time these studies were carried out the series stopped in 1990.)

Reliability studies were carried out by members of the research team on the basis of the key years identified. The picture of labor unrest derived from the World Labor Group database was compared with the picture derived from other existing sources (the labor history literature and any available statistical series) for seven countries (Argentina, China, Egypt, Germany, Italy, South Africa, and the United States). These reliability studies are presented in Part II of the special issue. They provide strong support for the contention that the newspapers of the world's hegemonic powers can be used to create reliable indicators of the actual incidence of labor unrest waves across the time and space of the world economy.

More specifically, the central strength of the World Labor Group database appears to be its fairly consistent ability to identify labor unrest waves within individual countries – and in particular those waves of labor unrest that represent turning points in the history of labor–capital relations. This reliability in identifying turning-point waves of unrest is tied to the particular characteristics of newspapers as a source for sociohistorical data: that is, the newspapers' bias against reporting routine events (such as institutionalized strike activity) and their bias in favor of reporting labor unrest that is not routine – “not just from a quantitative point of view, but

<sup>14</sup> The procedures used to identify major waves (high points) of labor unrest and to aggregate the time series of the two newspaper sources are slightly different in the special issue (see Silver 1995a) and this book. The procedures used in this book do not produce significant differences in the years singled out as major waves (high points) of labor unrest (and have the added advantage of being far less cumbersome). The results of the reliability studies thus apply to the data elaborations in both the special issue and this book.

as watersheds in labor–capital relations” (Arrighi 1995 in the special issue). Thus, the World Labor Group indicator correctly identifies as waves virtually all those years that are generally agreed to have been major quantitative or qualitative turning points in labor unrest for the countries examined in Part II of the special issue.

One systematic bias that requires caution does emerge from the country studies in Part II of the special issue. The World Labor Group indicator underestimates the severity of labor unrest in the immediate post–Second World War years for several of the countries studied. For China, Egypt and the United States, the immediate postwar years qualify as labor unrest waves, but the relative number of labor unrest mentions is smaller than expected in relation to other wave years in the century. And for South Africa, the World Labor Group does not identify 1946 as a wave year, although it is generally acknowledged to be a wave year based on other sources. The explanation is fairly straightforward: *The Times* (London) experienced a severe paper shortage in the immediate postwar years and cut back on the number of pages (and therefore the extensiveness of its reporting). Fortunately, the *New York Times* did not experience any similar constraints.

Another major strength of the World Labor Group database is the fact that it includes all the diverse forms of labor unrest. This means that our indicator is able to identify correctly the years of the major waves of labor unrest that are sometimes excluded or undervalued by official strike statistics. Nevertheless, it seems reasonable to expect (intuitively and from the experience of other researchers) that the newspapers will exhibit a systematic bias in favor of reporting incidents of labor unrest that are more openly confrontational (as opposed to hidden), use more violent (as opposed to nonviolent) tactics, and/or have larger (as opposed to smaller) numbers of participants (see, e.g., Snyder and Kelly 1977). Thus, although we have not yet done a study of the distribution of unrest by types of action, it is likely that many of the forms of labor unrest that we discussed under the category of weapons of the weak or hidden forms of resistance will be systematically underreported by our newspaper sources relative to the reporting of more open forms of resistance. As Scott (1985: 33–6) noted:

It is reasonably clear that the success of de facto resistance is often directly proportional to the symbolic conformity with which it is masked . . . The nature of the acts themselves and the self-interested muteness of the antagonists thus conspire to create a complicitous silence that all but expunges everyday forms of resistance from the historical record.



#### IV. Reliability of WLG Database

Our database cannot be used for a detailed study of hidden forms of resistance, but our experience has shown that when hidden acts of resistance reach pathological levels, they are indeed reported on by the newspapers. For example, employer complaints of widespread absenteeism, drunkenness on the job, and shoddy workmanship in the Soviet Union were in fact reported on by our two newspaper sources during the 1970s and 1980s.

In sum, while the WLG database, like all data sources, should be used with due caution, it has nevertheless proven to be a broadly reliable source for identifying world-scale patterns of labor unrest. It is unique in its geographical and temporal scope, opening up previously unavailable options for the empirical study of labor unrest as a world-historical phenomenon.