

Collective bargaining agreements: safety and health provisions

Union cooperation on matters of safety and health, the establishment of a joint local labor-management safety and health committee, protective clothing, and safety “dos and don’ts” are the most frequently appearing subjects in 744 private-sector collective bargaining agreements expiring between August 1997 and July 2007

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Safety and health issues are a major concern today for both employers and union representatives. The cost of workers’ compensation and health care benefits, the long-tailed effect of exposure to health hazards, the premature loss of future years of employment, and the prevention of human suffering are some of the reasons for this concern. Collective bargaining negotiations are potential arenas for the exploration, discussion, and formalization of philosophies, intentions, and procedures regarding safety and health matters. However, the actual extent to which these matters are examined in contemporary collective bargaining agreements is unknown. Accordingly, this article investigates the prevalence and types of safety and health provisions included in the current collective bargaining agreements of large private-sector U.S. firms.

Previous research

A 1976 study examined the prevalence of 26 safety- and health-related subjects in 1,724 major collective bargaining agreements covering 1,000 or more workers and maintained in a file by the Bureau of Labor Statistics.¹ The contracts covered 7.9 million workers, or about one-half of all

workers who were included in collective bargaining agreements in the industries studied. The contracts were in effect during mid-1974, with most of them remaining in effect in 1975 and beyond.

The safety and health subjects analyzed in the 1976 study were (1) general policy statements; (2) union-management cooperation; (3) dissemination of safety rules and procedures; (4) dissemination of information to unions; (5) safety and health committees; (6) employer compliance with safety requirements; (7) employee compliance with safety requirements; (8) employee discipline for noncompliance with safety rules; (9) safety and health inspections; (10) work performed under unsafe conditions; (11) final authority in safety disputes; (12) safety equipment; (13) safe tools, equipment, and transportation; (14) crew size and working in isolation; (15) types of safety protection; (16) protection against noxious gases or dust; (17) sanitation, housekeeping, and personal hygiene; (18) provisions for physical examinations; (19) alcohol and drugs; (20) accident procedures; (21) first aid and hospital facilities; (22) personnel assigned to treat injuries; (23) compensation for job-related injuries (excluding workers’ compensation), vacation, holiday, and other payments not available

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to, or in addition to, those available to employees with nonoccupational disabilities; (24) leave and transfer rights of disabled workers; and (25) pay differentials for hazardous duty.

In addition to these 25 subjects, some ancillary subjects related to them were also examined in the study. Information on the ancillary subjects was somewhat more detailed than that on the broader subjects to which they were related. For example, ancillary subjects studied in the area of safety and health committees were eligibility for committee membership, the term of service on the committee, the frequency of committee meetings, and compensation of committee members.

Of the 1,724 agreements that were reviewed, 1,607, or 93 percent, contained one or more of the 26 safety and health subjects that appeared in the 1976 study. The most prevalent subject in the agreements was compensation for injuries,

which was included in 60 percent of the contracts. The other subjects appearing most frequently in the agreements were safety equipment (49 percent); employee compliance with safety requirements (46 percent); union-management cooperation (43 percent); sanitation, housekeeping, and personal hygiene (40 percent); and employer compliance with safety requirements (33 percent).

Safety and health environment today

The occupational safety and health environment has changed considerably during the more than 20 years that have elapsed since the 1976 study. A major change in the environment was prompted by the Hazard Communication Standard issued in 1983 by the Occupational Safety and Health Administration (OSHA). This standard requires employers to label hazardous chemicals, prepare material safety data sheets, and train employees on how to handle chemicals and what to do in the event of accidental spillage. Another major change was a growing awareness on the part of both employers and union representatives of the dangers in the workplace to workers' health, particularly from biological, ergonomic, and chemical hazards. Hepatitis and acquired immunodeficiency syndrome (AIDS) are relatively recent diseases that employers did not face in the past. In the last 10 years, the incidence of occupational ergonomic disease—particularly, cumulative trauma—has risen, fundamentally changing the design of workplaces, the methods of accomplishing work, and the selection and training of workers.

Other changes include increased outsourcing of work to contractors, greater litigiousness of workers and attorneys with regard to occupational injuries and illnesses, and a growing awareness of the value of preventive measures, including employee wellness programs, in maintaining a healthy work force. Also, since 1976, unions have assumed a more prominent role in protecting the health and safety of workers. The changing nature of the internal and external environmental factors affecting worker occupational safety and health warrants a reexamination of union and management efforts to address the topic in the collective bargaining arena.

The sample

The database utilized for the study presented in this article is a file of approximately 1,200 private-sector collective bargaining agreements maintained by the Bureau of Labor Statistics. This file includes virtually all agreements in the private sector covering 1,000 workers or more. To ascertain a current view of how safety and health issues are being formalized in collective bargaining agreements, only contracts expiring between August 1997 and July 2007 (the latest expiration date in the file) were included in the study. Application of this criterion resulted in a

Table 1. Employees covered by private-sector collective bargaining contracts, with safety and health clauses, expiring between August 1997 and July 2007, by industry

Industry group	Workers	Contracts
All industries	1,864,847	433
Mining	31,185	6
Construction		
Building construction	121,380	47
Heavy construction	140,360	36
Special trade construction	82,730	43
Manufacturing		
Food and kindred products	33,950	18
Textile mill products	5,100	2
Apparel	53,720	7
Lumber and wood products	7,200	4
Paper	26,340	23
Printing	7,558	4
Chemicals	7,990	7
Rubber	9,215	6
Stone, clay, and glass	16,100	8
Primary metal	99,749	29
Fabricated metal	14,743	6
Industrial machinery	32,324	13
Electronic machinery	103,770	22
Transportation equipment	471,372	33
Measuring instruments	4,850	2
Nonmanufacturing		
Motor freight transportation	53,585	5
Communications	154,329	18
Electric, gas, and sanitary services	64,787	23
Wholesale trade	1,000	1
Food stores	134,344	27
Eating and drinking places	4,000	2
Miscellaneous retail	1,000	1
Insurance carriers	1,200	1
Hotels and other lodging	17,300	3
Business services	10,300	4
Automotive repair	1,000	1
Motion pictures	59,681	4
Health services	86,960	24
Legal services	975	1
Educational services	4,750	2

sample of 744 agreements. The firms in the sample represent large employers, as measured by the number of employees covered by the respective labor agreements. The number covered by the 744 agreements ranges from 650 to 215,000.

Prevalence and types of provisions

Of the 744 agreements reviewed, 433 (or 58 percent) contain one or more separate safety and health clauses. Table 1 lists the workers covered and the number of contracts with safety and health provisions, by industry. The workers represented by the 433 agreements with safety and health provisions constitute 18 percent of all workers covered by the 744 union agreements.

Forty-three different safety and health provisions were identified in the labor contracts analyzed. Nine other ancillary subjects involving labor-management safety and health committees also were analyzed. To facilitate discussion, these 52 provisions are grouped into five distinct categories: occupational health clauses; ergonomic-related clauses; clauses related to union-management relations as they pertain to safety and health issues; individual-employee safety-related clauses; and clauses related to safety and health technology, maintenance, or operation. In addition, an “other” category is included consisting of 10 subjects that appeared less frequently than the 52 provisions discussed in the first five categories.

As shown in table 1, the number of contracts with safety and health provisions and the numbers of workers covered by the contracts vary considerably among industries. Two types of analyses were conducted to facilitate an understanding of the interactions among the industries, number of contracts, provisions, and workers covered. First, with the exception of the “other” category, the number of contracts, both overall and by industry, were analyzed in terms of the aforementioned specific categories of safety and health clauses. In addition, also with the exception of the “other” category, a separate analysis is reported for the number of workers covered by the 52 provisions.

Occupational health

The study included an analysis of 10 types of clauses relating to occupational health. In addition, four ancillary clauses related to local labor-management safety and health committee involvement in occupational health issues, as well as three ancillary clauses related to national labor-management safety and health committees on the subject, were analyzed. As shown in table 2, these provisions address, among other issues, concerns with air hygiene, chemical hygiene, the disclosure of hazardous information to workers, the protection of the work environment, fitness centers, using employee teams to communicate with workers about workplace hazards, health promotion programs, local and national labor-management safety and health committees, and noise abatement.

Table 2. Incidence of occupational health clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007

Provision	Number of contracts	Percent of contracts
All contracts with safety and health provisions	433	100
Contracts with provisions for		
Air hygiene	42	9
Chemical hygiene	55	13
Disclosure of hazardous information	48	11
The environment	29	7
Fitness centers	8	2
A hazard communication team	28	6
A health promotion program	28	6
A local labor-management safety and health committee	219	50
To study chemical and air conditions	35	8
To study industrial hygiene	50	11
To study noise abatement programs	25	6
To review hazard communication programs	96	22
A national labor-management safety and health committee	56	13
To evaluate employee health exposures	37	8
To evaluate protective clothing	17	4
To study air quality	12	3
Noise abatement	42	10

Several of the occupational clauses were in at least 10 percent of the labor contracts. The most prevalent clause in the area of occupational health was a provision for local labor-management safety and health committees to review hazard communication programs. Other clauses appearing frequently had to do with chemical hygiene (13 percent of the agreements), the disclosure of hazardous information (11 percent), involvement on the part of local labor-management safety and health committees in conducting industrial hygiene studies (11 percent), and air hygiene (9 percent). Wellness subjects, such as health promotion programs (6 percent) and fitness centers (2 percent), appeared less frequently.

There are some differences among the agreements in the language used to describe the provisions displayed in table 2. The following summaries illustrate the variation in focus, depth, and breadth in which these issues are treated in the agreements.

Air and chemical hygiene. As just noted, 9 percent and 13 percent of the agreements with safety and health provisions cover air and chemical hygiene, respectively. Provisions citing air quality involve the employer’s agreeing to provide the union with the names of all hazardous materials, including aerosols, that are present at the work site and that may contaminate or otherwise adversely affect the air.

Provisions pertaining to chemical hygiene contain requirements that employers provide detailed information about any chemicals in the workplace, including the names and/or trade

names of the chemicals, the dangers of working with the chemicals, threshold limits, and other factors. Many of these agreements include mandates such as employee training in the proper handling of such materials, protective equipment that should be used, and how to avoid exposure. Some agreements make specific reference to exposure to asbestos. Most of the agreements with provisions pertaining to chemical hygiene also require that employers inform union safety and health committee members about testing or the results of studies on chemicals used at the work site. In some instances, the release of information or the potential disclosure of trade secrets may adversely affect the business. To protect against this eventuality, some agreements require both union and management representatives on safety and health committees to sign agreements prohibiting the release of confidential information. Most of the agreements with clauses on air and chemical hygiene also have clauses involving communication about other types of hazards.

Disclosure of hazardous information. Eleven percent of the agreements with safety and health provisions require employers to disclose any hazardous information or unsafe conditions found during inspections by government officials. This requirement includes maintaining records on radiation exposure and informing employees of the amounts they have been exposed to over specific periods.

Environment. Provisions involving the work environment include both internal and external conditions. These provisions are found in 7 percent of the agreements with safety and health provisions. Internal conditions include provisions regarding the environmental air temperature, a clean and orderly workplace, and procedures for cleaning spills. External conditions include provisions regarding the protection of employees from inclement weather, tornadoes, and winter climates.

All the agreements with provisions involving the protection of employees from environmental conditions also have requirements for providing employees with protective clothing or equipment. Clauses on equipment, clothing, and related matters were tallied separately and are included in the category of *employee safety* clauses.

Fitness centers. Only 2 percent of the agreements with safety and health provisions have clauses referring to fitness centers. Typically, these clauses involve employer commitments to provide onsite fitness centers for employee use.

Hazard communication team. Six percent of the agreements with safety and health provisions establish hazard communication teams. These teams are composed of union members and function at the local level in firms large enough to have multiplant operations. The teams, which operate indepen-

dently of local safety and health committees, vary in how they address hazard communication responsibilities. In some agreements, the team's work involves participating with management in complying with communications requirements issued by OSHA. In other agreements, the team has a much broader charter that encompasses *all* occupational hazards, including reviewing any adverse effects resulting from changes in operating conditions and communicating with employees about such effects.

Health promotion program. Six percent of the agreements with safety and health provisions have programs for health promotion. These programs focus on various health issues, such as the dangers of smoking or other tobacco use, smoking cessation, diet, cholesterol in the blood, obesity, exercise, and other lifestyle factors, such as the prevention of HIV infection. In some agreements, various instruments—for example, questionnaires on a person's lifestyle—are advocated for employee use in establishing baseline information and monitoring trends.

Local labor-management safety and health committee. Occupational health issues constitute a significant portion of the tasks assigned to safety and health committees. About 50 percent of the agreements with safety and health provisions authorize such committees. The committees study chemical and air conditions (8 percent of the contracts with safety and health provisions), conduct industrial hygiene surveys (11 percent of the contracts), study noise abatement programs (6 percent), and review hazard communication programs (22 percent), such as the procedures for preparing and disseminating material safety data sheets, training employees about hazardous chemicals, handling and using such chemicals, and dealing with accidental spillage or exposure.

National labor-management safety and health committee. Fifty-six agreements, or about 13 percent of all agreements with safety and health provisions, authorize national safety and health committees. These committees have various functions involving occupational health that are spelled out in the agreements. For example, 37, or 66 percent, of the 56 committees are responsible for evaluating employee exposures to health hazards; 17, or 30 percent, of the committees are charged with evaluating protective clothing; and about 21 percent of the 56 national committees are responsible for studying air quality.

Noise abatement. Ten percent of the agreements with safety and health provisions have clauses dealing with the prevention of noise and the protection of employees who are unavoidably exposed to excessive levels of noise. These clauses address conducting auditory studies of employees, investi-

gating areas where excessive noise occurs, reviewing protective equipment to prevent hearing loss, and studying the noise levels of new equipment.

Industry variations. Table 3 displays the frequency of contract clauses having to do with occupational health and the numbers of employees covered by each clause, by industry. As shown in the table, few of the contracts in the mining industry have any occupational health clauses. Furthermore, none of the five clauses in mining industry agreements covers more than 8 percent of the workers in those firms that have at least one safety and health provision. Occupational health clauses in construction industry agreements are confined primarily to chemical hygiene and the disclosure of hazardous information; only the contracts in special trade construction contain provisions on any other subject of occupational health.

The manufacturing industry has the largest number of contracts with occupational health clauses of all types. The primary metal, transportation equipment, paper, rubber, and industrial machinery sectors account for the bulk of these clauses. Transportation equipment manufacturing makes up the largest portion of workers covered. Perhaps somewhat surprising, none of the agreements in the chemical manufacturing industry has provisions for air hygiene, chemical hygiene, disclosure of hazardous information, or noise abatement. Furthermore, none of the agreements in the chemical manufacturing industry that provide for local labor-management safety and health committees has provisions assigning the committees responsibility to study chemical and air conditions or conduct industrial hygiene studies. Similarly, none of the agreements in the chemical manufacturing industry has provisions assigning responsibility to the committees to evaluate employee health hazard exposures, evaluate protective clothing, or study air quality.

With the exception of motor freight transportation, communications, and electric, gas, and sanitary services, virtually none of the contracts in the nonmanufacturing industries has occupational health provisions. Somewhat surprisingly, none of the agreements in the health service industry has provisions for air hygiene, environmental protection, hazard communication, and health promotion programs. By contrast, 18 of the agreements in the health service industry have provisions for local labor-management safety and health committees. As shown in table 3, however, none of these agreements has provisions assigning the local committees any responsibility for studying chemical and air conditions, conducting industrial hygiene studies, or reviewing hazard communication programs. These omissions are conspicuous, given the chemical, biological, and physical (such as from x-ray technology) health hazards that exist for health care workers.

In the area of occupational health, the largest number of workers, 541,000, or 29 percent of all the workers in the 433

firms, are covered by agreements with chemical hygiene provisions. The other provisions with the most extensive coverage for workers in the area of occupational health are those dealing with air hygiene (467,000 workers), noise abatement (466,000), and environmental protection (458,000). In addition, 456,000 workers are covered by agreements with provisions for local labor-management safety and health committees to study chemical and air conditions.

Ergonomics

The study included an analysis of five types of clauses relating to occupational health. In addition, two ancillary clauses pertained to the involvement of local labor-management safety and health committees in ergonomic health issues. As shown in table 4, these provisions address cumulative trauma hazards, joint labor-management ergonomic committees, local labor-management safety and health committees, union safety representation on ergonomic issues, and workstation design. The ancillary issues for those agreements with local labor-management safety and health committees were committee involvement in conducting ergonomic evaluations or studies and committee participation in the review of new technology or facilities for ergonomic compliance.

With the exception of local labor-management committee participation in the two ancillary ergonomic issues, the incidence of ergonomic provisions in those agreements containing any safety and health provisions is remarkably low. Only in 23 percent of the agreements are the committees involved in conducting ergonomic evaluations or studies. Eight percent of the agreements have provisions for the committees to review new technology or facilities for ergonomic compliance. In addition, 23 agreements, or 5 percent of all the health- and safety-related agreements, refer to special joint labor-management ergonomic committees. Just 2 percent of the agreements contain provisions to either identify cumulative trauma hazards or authorize union safety representation on ergonomic issues. Fewer than 1 percent of the agreements have provisions specifically addressing workstation design. The lone offsetting factor is the rather extensive involvement of union representation in provisions addressing ergonomic issues. Somewhat surprising is the dearth of other types of provisions addressing ergonomic health hazards, particularly cumulative trauma disorders, as these types of illnesses result in an average of 30 days away from work, the largest number of any disabling condition.²

Cumulative trauma hazards. As just noted, only 10, or 2 percent, of the agreements with safety and health provisions contain any clauses that address the currently important issue of cumulative trauma hazards, which are also sometimes referred to as repetitive motion injuries. Four of the agree-

Table 3. Occupational health clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007, by industry

[Workers in thousands]

Industry group	Air hygiene		Chemical hygiene		Disclosure of hazardous information		Environment		Fitness centers		Hazard communication team		Health promotion program		Noise abatement	
	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers
All industries	42	467.3	55	541.1	48	323.1	29	458.2	8	229.5	28	272.6	28	430.6	42	466.2
Mining	-	-	2	2.6	1	1.8	-	-	-	-	-	-	-	-	1	1.8
Construction																
Building																
construction	-	-	4	18.5	3	27.7	-	-	-	-	-	-	-	-	-	-
Heavy construction ..	-	-	4	6.4	2	4.5	-	-	-	-	-	-	-	-	-	-
Special trade																
construction	1	1.5	8	11.3	1	2.7	-	-	-	-	1	1.5	-	-	1	.9
Manufacturing																
Food and kindred																
products	-	-	1	1.8	2	3.5	-	-	1	2.0	-	-	1	2.0	-	-
Textile mill products ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Apparel	-	-	-	-	-	-	-	-	-	-	-	-	1	6.2	-	-
Lumber and wood																
products	1	2.2	1	2.2	1	2.2	1	2.2	-	-	-	-	-	-	1	2.2
Paper	1	.6	1	.6	1	.9	1	.6	-	-	-	-	-	-	1	.6
Printing	-	-	-	-	1	2.0	-	-	-	-	1	2.0	-	-	-	-
Chemicals	-	-	-	-	-	-	-	-	1	1.8	-	-	-	-	-	-
Rubber	3	4.9	3	5.1	1	2.5	1	2.5	-	-	2	3.9	2	3.9	3	4.9
Stone, clay, and																
glass	4	5.5	2	6.0	-	-	-	-	-	-	-	-	-	-	4	5.5
Primary metal	14	72.1	14	69.7	11	48.0	13	64.7	2	5.3	9	52.4	12	38.4	14	69.3
Fabricated metal	-	-	1	1.2	-	-	-	-	2	2.2	1	1.0	2	2.2	-	-
Industrial																
machinery	7	21.8	2	13.5	1	2.8	3	6.3	-	-	3	5.7	1	2.8	6	20.5
Electronic																
machinery	1	22.0	2	23.4	1	22.0	1	22.0	-	-	2	25.2	1	22.0	2	23.4
Transportation																
equipment	9	335.2	9	377.1	7	128.6	5	331.7	2	218.2	6	154.1	5	332.8	9	336.8
Measuring																
instruments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing																
Motor freight																
transportation	-	-	-	-	3	35.5	2	25.5	-	-	2	25.5	1	10.0	-	-
Communications	-	-	-	-	1	.8	-	-	-	-	-	-	2	10.2	-	-
Electric, gas, and																
sanitary																
services	1	1.2	-	-	4	10.5	1	1.3	-	-	1	1.2	-	-	-	-
Wholesale trade	-	-	-	-	-	-	1	1.2	-	-	-	-	-	-	-	-
Food stores	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eating and drinking																
places	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous retail ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance carriers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hotels and other																
lodging	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Business services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Automotive repair	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Motion pictures	-	-	-	-	1	11.0	-	-	-	-	-	-	-	-	-	-
Health services	-	-	1	1.3	5	12.3	-	-	-	-	-	-	-	-	-	-
Legal services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Educational																
services	-	-	-	-	1	3.5	-	-	-	-	-	-	-	-	-	-

Table 3. Continued—Occupational health clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007, by industry

[Workers in thousands]

Industry group	Local safety and health committee to—						National safety and health committee to—							
	Study chemical and air conditions		Conduct industrial hygiene studies		Study noise abatement programs		Review hazard communication program		Evaluate employee exposures to health hazards		Evaluate protective clothing		Study air quality	
	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers
All industries	35	456.9	50	286.9	25	423.3	96	399.2	37	407.1	17	232.4	12	379.8
Mining	1	1.6	—	—	—	—	1	1.6	—	—	—	—	—	—
Construction														
Building construction	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Heavy construction ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Special trade construction	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing														
Food and kindred products	—	—	3	5.9	1	1.5	6	10.2	1	1.1	1	1.1	—	—
Textile mill products ..	—	—	2	5.1	—	—	—	—	1	1.1	—	—	—	—
Apparel	—	—	1	6.2	—	—	2	8.4	2	41.1	—	—	—	—
Lumber and wood products	1	2.2	3	6.2	—	—	4	7.2	—	—	—	—	—	—
Paper	2	1.5	7	8.5	1	.9	11	13.4	1	1.3	—	—	—	—
Printing	—	—	—	—	—	—	1	2.0	—	—	—	—	—	—
Chemicals	—	—	—	—	1	1.8	2	2.9	—	—	—	—	—	—
Rubber	2	3.9	2	2.9	1	2.5	5	7.9	2	4.1	1	2.5	1	2.5
Stone, clay, and glass	1	1.8	—	—	—	—	4	6.0	—	—	—	—	—	—
Primary metal	13	61.3	12	68.1	4	17.3	21	77.3	11	65.3	5	30.1	5	30.1
Fabricated metal	—	—	—	—	3	7.2	3	3.0	1	1.2	1	1.2	—	—
Industrial machinery	3	15.5	3	15.0	2	13.5	6	20.4	2	12.9	1	2.8	1	2.8
Electronic machinery	1	22.0	2	25.8	1	22.0	4	31.4	1	22.0	1	22.0	1	22.0
Transportation equipment	7	331.5	9	129.4	9	345.6	13	149.4	6	157.5	5	151.9	3	18.7
Measuring instruments	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nonmanufacturing														
Motor freight transportation	—	—	—	—	1	10.0	3	25.5	3	42.5	1	17.0	—	—
Communications	—	—	—	—	—	—	—	—	4	44.7	1	3.7	1	3.7
Electric, gas, and sanitary services	1	4.0	4	8.8	1	.9	9	31.3	2	12.0	—	—	—	—
Wholesale trade	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Food stores	1	2.8	—	—	—	—	—	—	—	—	—	—	—	—
Eating and drinking places	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Miscellaneous retail ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Insurance carriers	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotels and other lodging	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Business services	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Automotive repair	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Motion pictures	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Health services	2	8.6	—	—	—	—	1	1.0	—	—	—	—	—	—
Legal services	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Educational services	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTE: Dash indicates no contracts.

Table 4. Incidence of ergonomic clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007

Provision	Number of contracts	Percent of contracts
All contracts with safety and health provisions	433	100
Contracts with provisions to:		
Identify cumulative trauma hazards	10	2
Establish a joint labor-management ergonomic committee	23	5
Establish a local labor-management safety and health committee to		
Conduct ergonomic evaluations or studies	100	23
Review new technology or facilities for ergonomic compliance	35	8
Allow union safety representation on ergonomic issues	9	2
Address workstation design	3	1

ments have a provision requiring the identification of cumulative trauma, and six agreements contain clauses that require measures to correct such hazards.

Joint labor-management ergonomic committees. Joint labor-management ergonomic committees are provided for in 5 percent of the agreements with safety and health provisions. This representation is in addition to union involvement on local labor-management safety and health committees, discussed subsequently.

Local labor-management safety and health committees. Ergonomic issues are prevalent in clauses addressing local safety and health committees. Two-hundred nineteen agreements, or 50 percent of all the health- and safety-related agreements, made provisions for such committees. One hundred, or 45 percent, of those agreements *mandate* committee involvement in the conduct of ergonomic evaluations or studies. Among the tasks contained in one or more agreements that are assigned to such committees in the area of ergonomic health are conducting studies of working conditions to prevent ergonomic health hazards, identifying work procedures or methods that cause unnecessary exposure to cumulative trauma types of illnesses, evaluating procedures and practices currently in place in order to determine whether they are meeting their intended purpose of preventing ergonomic illnesses. Reviewing new technology and facilities to ensure that ergonomic concerns are addressed is cited in 8 percent of all the agreements and 15 percent of those agreements with safety and health committees.

Union safety representation on ergonomic issues. Union safety representation in management initiatives to address ergonomic issues appears in 2 percent of the agreements with

safety and health provisions. This type of union involvement is independent of both joint labor-management ergonomic committees and union representation on safety and health committees.

Workstation design. Less than 1 percent of the agreements with safety and health provisions address workstation design to prevent hazards. Some of these clauses call for the parties to recognize the importance of considering ergonomics in the workplace. Others require employer commitment to correct any adverse ergonomic conditions in the workplace or to take other actions to minimize their effects. Some of the provisions contain specific actions such as studying the effects of video display terminals, providing training to employees who work a specified percentage of each workday or specified hours per day in an environment in which cumulative trauma hazards exist, and maintaining records of cumulative trauma disorders.

Industry variations. Table 5 shows the frequency of contract clauses related to ergonomics and the numbers of employees (in thousands) covered by each clause, by industry. Only one provision (local labor-management safety and health committee involvement in the review of new technology or facilities for ergonomic compliance) is present in contracts in the mining industry. Furthermore, this same provision is the only ergonomic provision (and it shows up in only one agreement) appearing in agreements in the construction industry. Most of the ergonomic clauses are found in manufacturing contracts, in which the specific provisions are typically those assigning the local labor-management safety and health committee the task of conducting ergonomic evaluations or studies. However, the provision that covers the most workers involves identifying cumulative trauma hazards. The provision covering the second-largest number of workers has to do with the establishment of joint ergonomic committees. Only contracts in the transportation manufacturing industry had clauses covering all six provisions selected for study. Finally, with the exception of the motor freight transportation, communications, and electric, gas, and sanitary services industries, no other contracts in the nonmanufacturing industries had any provisions involving ergonomic conditions. The sole exception is one contract in the health services industry that assigns the responsibility for conducting ergonomic studies to the local safety and health committee.

Union-management relations

Table 6 shows the incidence of safety provisions pertaining to union-management relations in private-sector collective bargaining contracts expiring between August 1997 and February 2002. Of the 433 contracts containing safety provisions, 279, or almost two-thirds of them, contain a clause dealing

Table 5. Ergonomic clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007, by industry

[Workers in thousands]

Industry group	Identify cumulative trauma hazards		Joint ergonomic committee		Local labor-management safety and health committee to—				Union safety representative on ergonomic issues		Workstation design	
					Conduct ergonomic evaluations or studies		Review new technology or facilities for ergonomic compliance					
	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers
All industries	10	650.7	23	479.2	100	443.1	35	474.8	9	136.0	3	107.2
Mining	—	—	—	—	—	—	4	20.4	—	—	—	—
Construction												
Building construction	—	—	—	—	—	—	—	—	—	—	—	—
Heavy construction.	—	—	—	—	—	—	—	—	—	—	—	—
Special trade construction	—	—	—	—	—	—	1	.9	—	—	—	—
Manufacturing												
Food and kindred products	—	—	1	1.3	7	11.5	—	—	—	—	—	—
Textile mill products	—	—	—	—	1	4.0	—	—	—	—	—	—
Apparel	—	—	—	—	—	—	—	—	—	—	—	—
Lumber and wood products	—	—	—	—	1	1.0	1	2.2	—	—	—	—
Paper	—	—	—	—	10	11.5	2	1.5	—	—	—	—
Printing	—	—	1	2.0	1	1.3	—	—	—	—	—	—
Chemicals	—	—	—	—	4	4.7	—	—	—	—	—	—
Rubber	—	—	1	2.5	3	5.5	2	3.9	—	—	—	—
Stone, clay, and glass ..	—	—	—	—	5	10.7	—	—	—	—	—	—
Primary metal	1	.7	3	33.1	21	85.1	11	57.1	2	10.6	—	—
Fabricated metal	—	—	1	1.2	4	6.2	—	—	1	1.2	—	—
Industrial machinery	—	—	2	4.8	7	21.7	2	13.5	—	—	—	—
Electronic machinery	—	—	1	22.0	5	29.6	1	22.0	—	—	—	—
Transportation equipment	9	650.0	8	335.7	12	149.6	10	349.1	5	120.0	3	107.2
Measuring instruments .	—	—	—	—	1	3.8	—	—	—	—	—	—
Nonmanufacturing												
Motor freight transportation	—	—	3	35.5	3	35.5	—	—	—	—	—	—
Communications	—	—	1	37.0	4	15.7	—	—	—	—	—	—
Electric, gas, and sanitary services	—	—	1	4.0	10	27.3	1	4.0	1	4.0	—	—
Wholesale trade	—	—	—	—	—	—	—	—	—	—	—	—
Food stores	—	—	—	—	—	—	—	—	—	—	—	—
Eating and drinking places	—	—	—	—	—	—	—	—	—	—	—	—
Miscellaneous retail	—	—	—	—	—	—	—	—	—	—	—	—
Insurance carriers	—	—	—	—	—	—	—	—	—	—	—	—
Hotels and other lodging	—	—	—	—	—	—	—	—	—	—	—	—
Business services	—	—	—	—	—	—	—	—	—	—	—	—
Automotive repair	—	—	—	—	—	—	—	—	—	—	—	—
Motion pictures	—	—	—	—	—	—	—	—	—	—	—	—
Health services	—	—	—	—	1	18.0	—	—	—	—	—	—
Legal services	—	—	—	—	—	—	—	—	—	—	—	—
Educational services	—	—	—	—	—	—	—	—	—	—	—	—

NOTE: Dash indicates no contracts.

with union cooperation on safety and health issues. Significant union involvement in safety and health issues is apparent in contracts with safety and health provisions, with 50 percent of these contracts providing for local labor-management safety and health committees. Furthermore, 13 percent of the contracts have provisions for national committees. Other frequently appearing provisions have to do with furnishing the union OSHA reports (34 percent of the agreements), establishing safety and health grievance procedures (23 percent), and acknowledging that the union is held harmless for employee safety and health problems (18 percent). These provisions, as well as others dealing with union-management relations pertaining to safety and health are discussed in detail below.

Acknowledgment that the union will be held harmless for employee safety and health problems. Issues of risk arise for unions that partner with employers in the management of occupational safety and health. As a result of this situation and related concerns, 18 percent of the agreements with safety and health provisions have clauses holding the union harmless for violations of any law or for occupational illnesses or injuries to employees. Some contracts also state that the union is not liable for any lawsuits or other legal actions that may result from occupational injuries or illnesses. In other contracts, the language is even more emphatic, with clauses specifying that the employer is financially and legally responsible for the safety and health of employees.

Furnishing union with OSHA reports. Thirty-four percent of the agreements with safety and health provisions contain clauses that require the employer to furnish union representatives with copies of OSHA Form No. 200 and other reports. In a somewhat related topic, most of the agreements with a reporting requirement also mandate notifying union representatives of occupational illnesses or injuries, sometimes within a stipulated period after the illness or injury has occurred.

Labor safety and health committees. Fifty percent of the agreements with safety and health provisions contain clauses calling for the empowerment of joint labor-management committees to address issues of mutual concern, including safety and health. A few contracts have provisions stipulating that the parties agree either to discuss the implementation of a local safety and health committee or actually to establish one. In most contracts containing provisions relating to safety and health committees, such a committee was established during the collective bargaining process, and the agreement stipulates the terms of the committee's operation. Some agreements involving unions and employer associations do not have provisions for safety and health committees as part of the master agreement, but they do contain stipulations that any employer in the association who establishes a safety and health committee will include representation by the union.

Less than 1 percent of the agreements with safety and health provisions have clauses establishing labor-management *divisional* safety and health committees. Divisional committees are appropriate when a large firm is organized by product divisions. About 13 percent of the agreements have provisions for the establishment of a *national* labor-management safety and health committee. These committees fulfill companywide functions, such as providing training guidelines for use at the plant level, reviewing companywide occupational injury and illness reports, performing research on all operations in the firm, evaluating exposures hazardous to safety and health in various plant operations, and monitoring the environmental health of employees.

Safety and health grievance procedure. Most of the contracts have provisions under the regular grievance procedures for the resolution of any dissatisfactions involving safety and health issues. However, 23 percent of agreements with safety and health provisions have separate grievance procedures devoted to safety and health disputes in particular. These agreements typically involve the largest organizations. The separate procedures differ from traditional grievance procedures in several respects. One of the main ones is that the grievance-handling process is expedited: a final decision, prior to referring the issue to arbitration, is made within a short period, usually 10 days or less. In some agreements, agency involvement is required if the safety issue concerns a governmental regulation. If a safety and health committee exists in the organization, usually one or more of the committee's representatives are assigned to investigate the matter at issue. In other contracts, the matter is referred for resolution to the safety and

Table 6. Incidence of union-management relations safety clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007

Provision	Number of contracts	Percent of contracts
All contracts with safety and health provisions	433	100
Contracts with provisions for:		
Acknowledgment that the union will be held harmless in cases of employee safety and health problems	79	18
Furnishing of OSHA reports to the union	147	34
A labor-management safety and health committee that is		
Divisional	2	1
Local	219	50
National	56	13
A safety and health grievance procedure .	101	23
Union cooperation with management on matters of safety and health	279	64
Authorization of a union representative to stop unsafe work	18	4
A union safety and health representative .	22	5

health committee if it is not resolved in the first step of the grievance procedure. When a dispute is not resolved, some contracts refer the matter to a grievance arbitration procedure, which may call for a representative from the occupational safety and health agency in the State to serve as arbitrator.

Union cooperation on matters of safety and health. As previously mentioned, union cooperation is the most frequent provision related to safety and health issues, appearing in 64 percent of the agreements. The clause may call for a union pledge to cooperate with the employer in ensuring that work is accomplished in a safe and healthy manner. Other contract language on the subject contains pledges by both parties to work together to prevent accidents and exposures to health hazards and to maintain a safe environment. Some contracts call for the union to cooperate with the employer in encouraging employees to observe safety and health regulations issued by the employer and to wear safety apparel and utilize safety equipment, regardless of whether such items are furnished by the employer.

Union representative can stop unsafe work. Four percent of the contracts with safety and health provisions include clauses authorizing stewards or other union officials to stop work when conditions are perceived to be unsafe or unhealthy. These clauses also authorize stewards to stop work in the event of inclement weather. They do not, however, grant employees the right to refuse to work in dangerous conditions, a right that is included as “refusal of hazardous work” in *employee safety* clauses.

Union representation. Several forms of union representation regarding matters of safety and health are contained in the agreements. The most common form is representation on local union safety and health committees. Another form of representation is provided by union representatives who are paid by the employer for full-time or part-time work dealing with safety and health matters. Five percent of the agreements authorize the employment of such representatives. Most agreements that contain provisions for safety and health committees also authorize paid union safety and health representatives who work independently of the committees. For example, 19 of the 22 agreements that authorize these paid safety and health representatives also authorize local safety and health committees. Representatives may work with management safety employees on special projects and monthly inspections. The representatives also may perform a variety of other functions independently, such as investigate safety complaints from employees, conduct inspections and investigations of accidents, and aid in the resolution of complaints about safety.

Industry variations. Table 7 shows the frequency of contract clauses pertaining to union-management relations and the numbers of employees (in thousands) covered by each clause,

by industry. At least one union-management relations clause appears for every industry, except eating and drinking places, miscellaneous retail, and insurance carriers. These clauses are most prevalent in manufacturing industries, with two industries—primary metal and transportation equipment—having coverage in all of the subjects, including divisional labor-management safety and health committees. About 1.4 million workers are covered by contracts with clauses pledging union cooperation in safety and health issues. The other provisions covering the largest number of workers are local labor-management safety and health committees (1.1 million), national safety and health committees (750,000), and safety and health grievance procedures (697,000).

Employee safety

Employee safety is the primary focus of all safety and health provisions. Some provisions, however, relate more directly to guidelines for the protection and control of employees in the work environment. (See table 8.) The most prevalent employee safety clause found in the agreements deals with protective clothing and related items: 41 percent of the contracts had this provision. Almost as great a percentage of contracts, 36 percent, include provisions that deal with employee “dos and don’ts.” The other most frequently appearing provisions deal with reporting safety and health needs (31 percent), first aid and medical facilities (24 percent), and refusal of hazardous work (22 percent). Two provisions (conducting surveys and safety and health testing of employees) were in 17 percent of the agreements. The following descriptions summarize the language of the clauses related to employee safety.

Assignment of employees with occupational illnesses or injuries. Providing employment opportunities for employees who are recuperating from occupational illnesses or injuries is a concern for many employers. In some cases, these employees are unable to perform any of the customary duties in their regular jobs. In other situations, the employees may be unable to perform a certain portion of their regular tasks. In the former case, accommodations can be made by providing the employees with temporary or permanent changes in their assignments. In those instances in which some of the tasks of regular employment cannot be performed, the employee can be assigned to perform only those tasks that he or she is able to do.

Fifteen percent of the agreements with safety and health provisions have clauses referring to the assignment of employees recuperating from an occupational illness or injury. Some agreements provide for the establishment of light-duty assignments and prescribe the method for assigning eligible employees to those assignments. Some agreements also have procedures for paying ill or injured employees during the period in which they are unable to perform any work. A number of the provisions include procedures for recuperating employ-

Table 7. Clauses pertaining to union-management relations regarding safety and health in private-sector collective bargaining contracts expiring between August 1997 and July 2007, by industry

[Workers in thousands]

Industry group	Acknowledgement that union is held harmless		Union furnished with OSHA reports		Safety and health committee						Safety and health grievance procedure		Union cooperation on safety and health		Union representative can stop unsafe work		Union safety and health representative	
	Contracts	Workers	Contracts	Workers	Local		Divisional		National		Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers
					Contracts	Workers	Contracts	Workers	Contracts	Workers								
All industries .	79	418.4	147	583.0	219	1,145.3	2	215.6	56	752.1	101	697.8	279	1,434.8	18	167.2	22	430.0
Mining	-	-	1	1.8	5	27.9	-	-	3	10.9	4	26.3	6	31.3	-	-	1	3.2
Construction																		
Building construction ...	3	23.0	1	1.3	3	7.8	-	-	-	-	-	-	17	49.9	1	1.0	-	-
Heavy construction ...	3	10.9	4	14.1	6	23.3	-	-	-	-	4	23.4	16	81.1	-	-	-	-
Special trade construction .	7	16.4	4	8.9	10	22.5	-	-	-	-	1	4.0	9	15.8	-	-	-	-
Manufacturing																		
Food and kindred products	7	14.8	8	15.4	16	29.7	-	-	1	1.1	4	6.7	12	21.5	1	2.0	-	-
Textile mill products	-	-	2	5.1	2	5.1	-	-	-	-	-	-	2	5.1	-	-	-	-
Apparel	1	.9	3	9.4	4	44.8	-	-	2	41.2	1	2.2	5	45.3	-	-	-	-
Lumber and wood products	-	-	2	5.2	4	7.2	-	-	-	-	1	2.2	4	7.2	-	-	-	-
Paper	4	4.1	13	14.6	12	14.4	-	-	-	-	5	5.3	22	25.2	-	-	-	-
Printing	-	-	-	-	2	3.3	-	-	-	-	-	-	4	7.5	-	-	-	-
Chemicals	2	1.9	3	2.7	5	5.7	-	-	-	-	1	1.8	7	7.7	1	1.8	1	.9
Rubber	2	3.9	6	9.2	5	7.9	-	-	2	4.1	4	6.5	6	9.2	1	2.5	2	4.1
Stone, clay, and glass	-	-	6	12.0	7	13.8	-	-	-	-	5	10.7	8	16.1	-	-	-	-
Primary metal ...	15	72.1	23	88.2	23	88.8	1	.6	12	66.0	22	88.1	26	94.8	5	14.9	1	1.1
Fabricated metal	2	1.8	6	14.7	5	11.2	-	-	1	1.2	5	11.2	6	14.7	1	1.2	1	.8
Industrial machinery	5	18.2	10	27.2	7	21.7	-	-	2	13.5	5	18.8	12	30.3	2	4.0	1	10.7
Electronic machinery	5	38.9	8	44.1	12	52.5	-	-	8	69.3	4	28.3	22	103.7	2	24.0	3	26.4
Transportation equipment	8	148.6	13	147.7	26	444.6	1	215.0	10	378.5	19	388.6	27	445.2	3	105.8	8	365.8
Measuring instruments	-	-	1	3.8	1	3.8	-	-	-	-	-	-	1	3.8	-	-	-	-
Nonmanufacturing																		
Motor freight transportation .	2	25.5	4	52.5	3	35.5	-	-	4	52.5	3	35.5	5	53.5	1	10.0	-	-
Communications	3	12.1	8	26.8	5	23.3	-	-	7	87.2	2	4.1	14	144.5	-	-	1	.8
Electric, gas, and sanitary services	5	14.8	15	49.0	15	50.2	-	-	2	12.0	6	16.7	22	61.1	-	-	2	14.0
Wholesale trade	-	-	-	-	-	-	-	-	-	-	-	-	1	1.0	-	-	-	-
Food stores	2	6.8	3	18.8	15	67.1	-	-	-	-	1	4.9	13	78.6	-	-	1	1.9
Eating and drinking places	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous retail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance carriers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hotels and other lodging ..	-	-	-	-	2	13.0	-	-	-	-	1	6.5	-	-	-	-	-	-
Business services	1	.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Automotive repair	-	-	-	-	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-
Motion pictures	-	-	-	-	2	47.2	-	-	2	14.3	-	-	2	47.3	-	-	-	-
Health services .	2	2.4	3	10.0	18	65.4	-	-	-	-	-	-	10	32.7	-	-	-	-
Legal services ...	-	-	-	-	1	.9	-	-	-	-	1	.9	-	-	-	-	-	-
Educational services	-	-	-	-	2	4.7	-	-	-	-	2	4.7	-	-	-	-	-	-

Note: Dash indicates no contracts.

ees to follow in obtaining medical certification regarding the extent of their condition, their fitness to perform certain types of work, and any accommodations that they might require while recuperating. Some contracts have clauses involving procedures for paying employees for the time they spend being examined by a physician.

Conducting surveys. Seventeen percent of the agreements with safety and health provisions have procedures for the conduct of safety and health surveys. Typically, the surveys involve screening for various health or safety conditions, such as surveys of employee hearing as part of a noise abatement program. These provisions are somewhat different from those having to do with safety testing, chiefly because the surveys involve all the employees in a work area. For example, a study of the detrimental effect of noise emanating from a machine may necessitate a hearing survey of all the employees working in the area nearby the machine.

Working alone or in a confined space. Working alone can be a safety or health issue in certain situations. The safety concerns of working alone are apparent in situations that involve tasks that require two or more persons, such as heavy lifting or positioning of supporting equipment—for example, work on high ladders. More recently, another safety issue in working alone is the threat of workplace violence. Concerns arise regarding employees who are working alone at night in desolate areas. Other safety concerns related to working alone may exist when an employee is working in a cramped or confined area with the potential risk of becoming lodged within the area. Another significant health issues arises with regard to those working alone and handling toxic substances, who may become asphyxiated from fumes given off by those substances.

Nine percent of the agreements with safety and health provisions have clauses that either restrict the conditions under which employees can work alone or provide a procedure for employees to request assistance as they deem necessary. Some agreements prohibit employees from working certain hours of the day, such as before sunrise or after sunset. Some contracts also prohibit employees from working alone when using hazardous chemicals or solvents that can render them unconscious. A number of agreements address the problem of working alone by having procedures for employees to request assistance when working alone on specific tasks, such as welding or burning operations or loading or unloading materials. Some agreements prohibit employees from working alone when they believe that their personal safety will be at risk by doing so and it is reasonable to conclude that a person working alone is in fact at such risk. These prohibitions also include working in tight or cramped spaces in which an employee can become lodged and unable to move or in which the movement of air is restricted, inhibiting breathing. Four per-

cent of the agreements include a provision about working in confined spaces.

“Dos and don’ts.” Thirty-six percent of the agreements with safety and health provisions have clauses best characterized as “dos and don’ts.” These clauses require employees to adhere to safety and health laws and employer safety and health rules and policies. The clauses include provisions holding employees harmless when they violate any rule about which they were not informed beforehand. Some agreements have clauses which stipulate that employees will be disciplined or discharged for violating such rules and procedures. A number of agreements include time limitations on the consideration of past safety violations in deciding upon the gravity of discipline in future violations. Some agreements have very formalized procedures for taking disciplinary action.

Some agreements outline particular safety rules that must be followed, such as the use of special masonry saws for cutting masonry inside a building and vehicle weight limits that must be observed. Other agreements have the more general stipulation that employees are to work in a safe manner or that they are to protect themselves and the employer’s property.

Clauses requiring union representatives to observe safety rules, wear required safety apparel, and utilize safety equipment are included in some agreements. A number of clauses prohibit employers from changing safety rules to evade provisions of the agreement. Employee contributions to the improvement of safety procedures are accounted for in agreements that permit employees to discuss rules with the employer’s representatives and suggest ideas for changing them.

Table 8. Incidence of employee safety clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007

Provision	Number of contracts	Percent of contracts
All contracts with safety and health provisions	433	100
Contracts with provisions for:		
Assignment of employees with occupational illnesses or injuries	67	15
Conducting surveys	73	17
Confined space	18	4
“Dos and don’ts”	156	36
First aid and medical facilities	104	24
A mortality registry	6	1
No hands in dies	8	2
Protective clothing	177	41
Refusal of hazardous work	97	22
Reporting safety and health needs	136	31
Safety and health talks or meetings	32	7
Safety and health tests of employees	76	17
Safety and health training	37	8
Tuition reimbursement	16	4
Working alone	38	9
Dealing with violence in the workplace	13	3

Some agreements assign responsibilities to both employers and employees. For example, some clauses include security provisions wherein employees are required to use their best efforts to protect the employer's property. Other employee responsibilities include reporting any hazards or accidents that occur in the workplace. For safety reasons, some agreements prevent the employer from assigning overtime beyond a certain number of hours.

First aid and medical facilities. Twenty-four percent of the contracts have requirements for first aid, medical facilities, or other arrangements for the treatment of employees who incur job-related injuries or become ill at work. The requirements include first-aid kits, access to medical facilities, and training of employees in cardiopulmonary resuscitation (CPR). Some contracts also have clauses specifying the hours of operation of company medical clinics or other medical facilities. A number of contracts specify the use of health maintenance organizations to treat ill or injured employees.

Some contracts have provisions to resolve different opinions between two physicians about job-related illnesses or injuries. Typically, these provisions give employees the option of obtaining a third opinion when a second opinion was requested, but differed from the original medical opinion. Some contracts require employers to arrange with local medical services, including transportation services, for treatment in the event of a medical emergency. In some agreements, the employer is required to provide an onsite ambulance in the event that there is no ambulance within a specified distance from the work site. A number of agreements require the posting of the name and address of the employer's physician who will treat employees for occupational injuries or illnesses. All contracts limit the choice of physicians available to employees; some also require the employer to post the name and address of the insurance company covering workers' compensation claims.

Mortality registry. Only 1 percent of the agreements with safety and health provisions have clauses referring to a mortality registry, which is a record of all fatalities occurring at the work site. In these registries is information on the cause of death of the employee, the location of the place of employment, and the decedent's occupation.

No hands in dies. Two percent of the contracts with safety and health provisions contain a clause specifically prohibiting employees from placing their hands in stamping and other operations in which dies and related machinery constitute a safety hazard. These clauses also prohibit the establishment of procedures requiring employees to perform such functions.

Protective clothing. Forty-one percent of the agreements have provisions requiring employers to furnish one or more of

the following items: protective clothing, uniforms or other garments, safety- and health-related articles, and protective equipment. Presumably, employees would be expected to use protective clothing and equipment provided by the employer, but most agreements are silent on this issue.

Responsibility for maintaining clothing and equipment used at work is another important dimension of agreements that address the subject of protective clothing. Typically, contract provisions require that, when employers furnish these items, employees properly care for and maintain clothing and equipment assigned to them and use such clothing and equipment only on the job and not for personal purposes. Some agreements also have clauses that specify what to do in the event that employees fail to turn in protective items assigned to them as required—for example, when they leave employment. In such cases, employees may have the cost of the items deducted from their final paycheck. Provisions for the replacement of protective clothing or equipment may allow for normal wear and tear or may require the employee to reimburse the actual cost of replacement. Some agreements require employees to sign personal notes indicating that they are responsible for lost or damaged equipment. In some agreements, employees are required to make a deposit when clothing or equipment is issued, to help ensure its return. Conversely, employers may assume a liability if they do not furnish clothing or equipment. For example, a number of agreements require employers to assume the responsibility for any damage to employees' personal clothing while the employees are on duty.

In some contracts, employees are required to have a minimum tenure of employment, such as 6 months, before they are eligible to be issued safety clothing. In lieu of providing clothing to employees, some contracts grant an allowance to employees to purchase safety clothing. Typically, the amount of the allowance increases with the employee's tenure.

The usual safety items provided by the agreements are safety shoes, overshoes, eyeglasses (including prescription eyeglasses), goggles, safety shields, earplugs, safety belts, hard hats or safety helmets, helmet liners, weather liners for helmets, sun visors, and sweatbands. In some occupations, employers furnish gloves, knee pads, protective aprons, face shields, masks, rubberized suits, aluminized clothing, oxygen masks, and other items. When employees work above ground level, agreements may contain language requiring employers to furnish safety nets and overhead protection. Some agreements pertaining to working conditions that involve radiation require employers to provide film badges to gauge the extent of the employee's exposure. Clothing that is resistant to fire, water, and acid also may be furnished, as working conditions dictate.

Special clauses may protect employees who work with machinery and equipment. Some of these clauses require guards on machines and special devices or mechanisms to protect the employees. Maintenance of equipment and licensure of opera-

tors are other items of concern when employees operate machinery. Some of the agreements require that machines, equipment, and vehicles be kept safe and operable, in accordance with laws and regulations.

The reissuance of equipment also is covered in a number of agreements. The language pertaining to reissuing equipment or clothing previously issued to other employees typically requires the employer to have the items inspected to ensure that they are in proper working order before they are reissued to another employee. Some contracts have provisions requiring that clothing be disinfected prior to being reissued to another employee.

Refusal to work in unsafe or unhealthy conditions. Few issues in the workplace are more contentious than disagreements between managers and employees over their perceptions of unsafe or unhealthy working conditions and the requirement that employees continue working despite such conditions. Twenty-two percent of the agreements have provisions addressing this issue. Some agreements simply mandate that the employer make the workplace safe. Other agreements make the employee responsible for informing the employer about unsafe or unhealthy conditions that are serious enough for the employee to request that the work be stopped.

A concomitant issue is the work status of the employee who is alleging that working conditions are unsafe or unhealthy. Some agreements state, in no uncertain terms, that employees shall not be required to work in unsafe or unhealthy conditions. Some contracts stipulate that no employee shall be discharged or disciplined for refusing to work when the job conditions create a real, immediate, and obvious hazard to the worker or to fellow workers in the area. A few contracts even have clauses specifying that, in the event that the employer violates a "dangerous work" provision, the union has the right to withdraw the employee from the work, and such action shall not be a violation of the contract. Some contracts also require the employer to pay the employee for any time lost if, upon review through either the grievance or some other procedure, it is concluded that the employee was correct in his or her assessment that the work was unsafe or unhealthy. Conversely, some agreements authorize disciplinary action against an employee who did not act in good faith in refusing to work in an area that the employee alleged was unsafe. Still other agreements authorize employers to reassign employees to different work once the employees have cited a specific condition that is dangerous. In the event of a reassignment, some agreements require the employer to pay the employee his or her regular rate of pay, unless the assignment is to a job with a higher rate, in which case that rate shall be paid.

A number of agreements provide for a procedure whereby an employee can appeal the matter if the initial charge of an unsafe condition is not sustained. In these types of situa-

tions, employees are required to continue working while appealing the condition. The appeal procedure may involve either the regular grievance procedure or a separate procedure dedicated to safety and health issues. Some agreements require that the alleged unsafe condition be inspected, reviewed, and/or corrected within a specific period, such as 4 hours, after it is reported by the employee. Some clauses also include referring unsafe or unhealthy conditions to a special panel, committee, or governmental agency to investigate. Four percent of the agreements have provisions authorizing union officials to stop employees from working when the officials conclude that the working conditions are so unsafe or unhealthy that they warrant such action.

Some contracts have provisions prohibiting reprisals against employees who report unsafe conditions. A number of clauses also require the employer to acknowledge the use of his or her best efforts in attempting to correct any unsafe or unhealthy condition.

Safety and health need-reporting procedure. Thirty-one percent of the agreements with safety and health provisions have procedures for employees to report conditions that they feel need correction. Typically, these conditions are not serious enough to warrant the employee's refusal to work, but they still need to be corrected. Some provisions dealing with this topic make the employer responsible for giving prompt, fair consideration to employee ideas and suggestions for maintaining proper safety and health working conditions.

Safety talks and meetings. Seven percent of the agreements with safety and health provisions have clauses that mention talks or meetings dealing with safety in the workplace. Some contracts require the employer to conduct periodic safety talks or hold meetings on timely topics relating to safety. The frequency of mandatory safety talks varies, with some held as often as weekly. In some agreements, safety talks are required after serious accidents or fatalities occur. Employee attendance at safety talks typically is mandatory, and some provisions include disciplinary action for employees who fail to attend.

Health testing. Medical testing, including physical examinations to determine an employee's fitness for duty, is the subject of 17 percent of the agreements. The provisions include procedures that will be followed when examinations are requested and administered. Most of the agreements having provisions on this subject detail the circumstances in which testing may be conducted. Generally, there are three broad categories of circumstances. The first, and probably the most common, is the traditional physical examination required as a condition of initial employment. Somewhat related are annual or periodic physical examinations. A second area of testing authorizes employers to conduct special physical examina-

tions for any employee whose duties involve the safety of others. A third area includes examinations administered upon demand. These examinations may be requested to determine an employee's fitness for duty or because of suspicions that the employee is drug impaired. For example, some agreements have clauses permitting employers to administer drug tests to employees for cause, such as when they have an accident at work.

In a few agreements, employees who contest a determination by the employer's physician that they are physically not qualified for work have the option of being examined by a second physician. The two physicians then select a third physician, who will determine whether the employee is physically qualified for work. Some agreements limit the employer's rights to conduct safety and health tests of employees to specific types of tests, such as physical examinations.

Some agreements cover, in addition to physical examinations, eye and hearing tests and drug testing. Provisions involving drug-testing procedures are included if the language specifying a drug-testing requirement has safety and health as its purpose. Some contract provisions require the employer to offer rehabilitation to any employee who fails a drug test. Some agreements have provisions for testing for contagious diseases. A number of these agreements include procedures involving new work assignments or reasonable accommodations for employees who are found to have such diseases. Other agreements allow the employer to dismiss or lay off employees whose diseases are considered hazardous to co-workers.

Most contracts are silent on the issue of who is responsible for paying for the administration of tests. Some contracts specifically stipulate that the employer is obligated to pay for any test. In other contracts, the employer is responsible for paying for only those tests the employer requests. Some agreements specify that physical examinations shall be conducted on paid work time. A number of contracts hold the union harmless for the results of any testing, such as lawsuits stemming from a test. Some agreements also have clauses dealing with the eventuality that a drug test is found to produce incorrect results.

Safety training. Safety training and education are used extensively by employers to prevent occupational accidents, illnesses, and injuries. Safety training, as opposed to talks or short meetings on safety, typically involves longer periods of time, such as an 8-hour course conducted in a training room away from the work site. Eight percent of the agreements with safety and health provisions have clauses involving safety training. Some clauses require employer contributions (such as 5 cents per employee work hour) to establish a pool of funds to be used for safety and health training purposes. Some contracts stipulate that safety and health training will

be conducted on the employee's own time. Other contracts are silent as to whether the training will be on paid time or will require payment, subject to a maximum number of hours. A small number of agreements state that all training will be conducted on the clock, even if overtime is involved. Periodic refresher training is required in a number of agreements, particularly when job conditions change and thus warrant training. Some agreements specify the training procedures for new employees and the types of training that will be given, such as training in the operation of fire extinguishers and in the procedures to follow to lock out or tag unsafe equipment, protect against falls, open excavations, and use scaffolding.

Tuition reimbursement. Four percent of the agreements with safety and health provisions have a clause authorizing tuition reimbursement for safety- and health-related training programs and courses.

Workplace violence. Clauses dealing with violence in the workplace are among the least prevalent provisions, appearing in only 3 percent of the agreements with safety and health provisions. This low incidence is perhaps surprising, in view of today's increased awareness of, and attention paid to, violence in the workplace. The reason may be that provisions to address workplace violence issues have not yet filtered into contracts. Some innovative efforts, however, are being made to address the issue in collective bargaining. For example, one contract establishes a national committee for the purpose of reducing workplace violence. This committee interfaces with the company's employee assistance and counseling programs. Some agreements have violence response teams and methods to help alleviate the stress that may lead to workplace violence.

Industry variations. Table 9 shows the frequency of contract clauses related to employee safety and the numbers of employees (in thousands) covered by each clause, by industry. The transportation industry is the only industry that has contract provisions in all 16 subjects of employee safety shown in the table. As noted earlier, a potentially confrontational issue in the workplace involves the perception and differing opinions of what constitutes hazardous work. Five of the six contracts in the mining industry have a provision relating to that issue. Other industries in which such a provision appears frequently are stone, clay, and glass manufacturing (62 percent), primary metal manufacturing (also 62 percent), and transportation equipment (51 percent). The two most frequently appearing provisions in all of the construction industries involve "dos and don'ts" and protective clothing. As expected, contracts in these industries have no provisions involving either confined space or prohibitions on placing hands in dies. In addition, none of the construction contracts

have a provision for a mortality registry or tuition reimbursement. Two other provisions, each of which appears in one construction industry contract, deal with conducting surveys and workplace violence.

With the exception of the measuring instruments industry, one or more contracts in all the other manufacturing industries have provisions for reporting safety and health needs. The two other provisions that appear most frequently in manufacturing industries have to do with conducting surveys and “dos and don’ts.” Somewhat surprisingly, with the exception of transportation equipment manufacturing and primary metal manufacturing, few industries make use of safety and health testing of employees. Including contracts in those two industries, only 43 (or 23 percent) of the 184 contracts in the manufacturing industries have testing provisions.

The two most frequently appearing employee safety provisions in contracts in the nonmanufacturing industries involve protective clothing and “dos and don’ts.” Only 1 of the 30 contracts in food stores, eating and drinking places, and miscellaneous retail goods has a provision on workplace violence. This finding is significant, because almost half of workplace homicides in which employees are the victims occur in retail establishments, such as grocery stores and eating and drinking places, where cash is readily available.³ In addition, only 6, or 25 percent, of the 24 contracts in the health services industry have workplace violence provisions. One might expect that this frequency would be higher, given that health care workers are the victims of a disproportionate share of lost-time injuries due to workplace assaults.⁴

The employee safety provisions that cover the largest numbers of workers deal with protective clothing (901,000 workers), refusal of hazardous work (727,000), reporting of safety and health needs (666,000), safety and health testing of employees (628,000), and “dos and don’ts” (627,000).

Technology, maintenance, and operations

Table 10 displays the frequency of provisions affecting issues related to technology and safety and health requirements in the maintenance and operation of equipment. These provisions are related to some emerging issues in collective bargaining that affect other workplace concerns as well as safety and health. For example, the introduction of new technology typically is viewed from the dimension of layoffs and permanent job loss. In addition to these concerns, however, the issue has implications for worker safety and health. Nine percent of the 433 contracts have provisions for reviews of new technology, including the assurance that the new technology will protect the health and safety of workers. This provision should be considered with two others discussed previously. As noted in the discussion of ergonomic provisions, 8 percent of the contracts provide for local labor-man-

agement committee involvement in reviews of new technology and facilities to see that they comply with ergonomic standards. In addition, three contracts, constituting less than 1 percent of all the agreements, have provisions which mandate that ergonomic considerations enter into workstation design. Finally, as noted in the discussion of occupational health provisions, 6 percent of the agreements provide for noise abatement programs. The provisions involving noise abatement include reviews of new technology and equipment to determine their noise levels.

Maintenance of equipment and facilities is another emerging issue that has implications for workplace safety and health. As a cost reduction strategy, some employers are outsourcing maintenance to contractors. This strategy frequently results in employees losing their jobs and may raise at least two concerns about workplace safety and health: will the contractors work safely in performing their tasks, and will they ensure that equipment is being safely maintained? Despite these concerns, only 2 percent of the agreements have provisions addressing the issue of contractor safety. In addition, 2 percent have provisions on safety and health maintenance requirements, and 3 percent have clauses relating to the lockout or tag-out of inoperable or unsafe equipment. The following discussion describes the provisions dealing with these subjects.

Contractor safety. As mentioned, 2 percent of the agreements with safety and health provisions include employer assurances that contractors perform work in a safe and healthful manner. Some agreements specify action against contractors who violate safety procedures. For example, they may be ineligible to receive work and/or be removed from work they are performing. These types of clauses also stipulate that contractors are responsible for performing work in accordance with government laws and regulations and employer safety rules. When subcontractors are used, the provisions may place responsibility for the safety and health conditions of the entire project upon the primary contractor.

Lockout/tag-out. This clause relates to the stopping of equipment and turning off the power to machines due to safety hazards caused by exposure to energy or motion of the machines or equipment. Typically, a review procedure is involved before lockouts or tag-outs are implemented. Three percent of the agreements with safety and health provisions contain lockout/tag-out provisions.

New technology, facilities, machinery, and processes. Nine percent of the contracts with safety and health provisions include clauses involving new technology, facilities, machinery, and processes. Some clauses include provisions that require training employees in the safe operation of new technology, processes, or machinery.

Table 9. Employee safety clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007, by industry

[Workers in thousands]

Industry group	Assignment of ill or injured employees		Conduct surveys		Confined space'		"Dos and dont's"		First aid		Mortality registry		No hands in dies		Protective clothing	
	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers	Con-tracts	Workers
All industries	67	426.5	73	537.0	18	175.7	156	627.4	104	499.8	6	352.8	8	358.4	177	901.6
Mining	2	17.6	-	-	-	-	4	22.6	3	25.3	-	-	-	-	3	24.5
Construction																
Building construction	7	35.3	-	-	-	-	26	71.2	8	42.4	-	-	-	-	25	68.6
Heavy construction ..	6	25.4	-	-	-	-	20	92.4	4	6.5	-	-	-	-	19	59.7
Special trade construction	5	8.3	1	1.5	-	-	16	25.9	9	14.0	-	-	-	-	20	45.0
Manufacturing																
Food and kindred products	-	-	3	5.5	-	-	4	6.6	5	8.8	-	-	-	-	5	8.5
Textile mill products ..	-	-	-	-	-	-	1	4.0	-	-	-	-	-	-	-	-
Apparel	1	6.2	2	37.2	-	-	-	-	3	9.4	-	-	-	-	-	-
Lumber and wood products	-	-	3	6.2	-	-	-	-	-	-	-	-	-	-	-	-
Paper	2	1.7	10	11.5	-	-	9	9.5	3	2.9	-	-	-	-	4	3.9
Printing	-	-	1	1.3	-	-	-	-	-	-	-	-	-	-	-	-
Chemicals	1	1.8	1	1.1	1	1.8	2	1.9	2	2.7	-	-	-	-	4	4.6
Rubber	1	2.5	3	5.3	1	2.5	2	3.9	2	3.9	1	2.5	1	2.5	5	7.8
Stone, clay, and glass	3	4.7	-	-	-	-	4	6.5	6	12.5	-	-	-	-	4	7.5
Primary metal	17	76.3	15	53.3	4	15.8	19	51.7	18	78.7	1	10.0	-	-	28	86.6
Fabricated metal	3	7.2	2	4.7	3	5.4	3	9.4	3	3.2	-	-	-	-	2	4.4
Industrial machinery	3	6.5	5	144.4	3	15.5	6	21.2	6	11.7	1	2.8	2	13.5	7	227.5
Electronic machinery	3	29.0	11	70.1	1	22.0	5	29.9	3	27.6	1	22.0	1	22.0	6	32.5
Transportation equipment	7	15.4	5	109.8	5	112.7	7	119.0	15	186.4	2	315.5	3	318.7	19	406.6
Measuring instruments	-	-	-	-	-	-	1	3.8	-	-	-	-	-	-	-	-
Nonmanufacturing																
Motor freight transportation	2	25.5	1	10.0	-	-	2	25.5	2	25.5	-	-	-	-	2	25.5
Communications	-	-	2	51.3	-	-	1	1.8	-	-	-	-	-	-	1	1.3
Electric, gas, and sanitary services	1	1.7	8	23.4	-	-	10	26.2	3	9.1	-	-	1	1.7	10	29.5
Wholesale trade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food stores	-	-	-	-	-	-	6	32.3	4	9.1	-	-	-	-	4	18.8
Eating and drinking places	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2.0
Miscellaneous retail ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insurance carriers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hotels and other lodging	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Business services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	.9
Automotive repair	-	-	-	-	-	-	1	1.0	-	-	-	-	-	-	1	1.0
Motion pictures	-	-	-	-	-	-	2	47.3	1	11.0	-	-	-	-	1	11.0
Health services	3	21.0	-	-	-	-	4	12.9	2	3.6	-	-	-	-	8	27.1
Legal services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Educational services	-	-	-	-	-	-	1	1.2	1	1.2	-	-	-	-	1	1.2

See footnote at end of table.

Table 9. Continued—Employee safety clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007, by industry

[Workers in thousands]

Industry group	Refusal of hazardous work		Reporting safety and health needs		Safety and health talks or meetings		Health testing of employees		Safety training		Tuition reimbursement		Working alone		Workplace violence	
	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers
All industries	97	727.7	136	666.3	32	426.8	76	628.1	37	477.3	16	366.2	38	477.3	13	80.1
Mining	5	27.9	3	12.3	1	1.8	2	8.5	1	1.6	-	-	-	-	-	-
Construction																
Building construction	16	65.0	2	5.7	6	21.7	8	29.1	5	6.4	-	-	2	10.0	-	-
Heavy construction ..	9	40.8	2	3.5	2	3.4	13	56.7	3	3.7	-	-	2	3.2	1	4.5
Special trade construction	4	5.1	4	11.7	4	9.8	6	8.4	7	10.7	-	-	7	14.7	-	-
Manufacturing:																
Food and kindred products	2	4.4	9	15.3	-	-	-	-	1	1.8	1	1.4	-	-	-	-
Textile mill products ..	-	-	1	4.0	-	-	-	-	-	-	-	-	-	-	-	-
Apparel	-	-	3	43.4	-	-	-	-	-	-	-	-	-	-	-	-
Lumber and wood products	1	2.2	3	6.2	-	-	1	2.2	-	-	-	-	-	-	-	-
Paper	4	3.9	10	11.9	-	-	1	.6	-	-	3	3.0	-	-	-	-
Printing	-	-	1	1.3	-	-	1	2.0	-	-	-	-	-	-	-	-
Chemicals	-	-	2	2.9	2	1.9	-	-	-	-	-	-	1	1.8	-	-
Rubber	1	2.5	4	6.5	1	2.5	3	5.1	-	-	3	5.5	1	2.5	-	-
Stone, clay, and glass	5	10.7	6	12.5	-	-	4	6.0	-	-	-	-	-	-	-	-
Primary metal	18	77.5	24	84.3	7	17.5	12	57.4	4	8.4	3	7.2	5	34.8	-	-
Fabricated metal	2	2.0	3	7.2	-	-	-	-	-	-	-	-	1	1.2	-	-
Industrial machinery	2	4.3	8	23.9	1	2.8	1	2.8	-	-	1	2.8	3	15.7	-	-
Electronic machinery	2	23.3	8	36.4	2	24.0	2	25.2	-	-	1	22.0	2	31.8	1	2.4
Transportation equipment	17	370.0	14	185.5	4	322.2	9	377.9	8	336.3	4	324.3	8	342.1	1	34.1
Measuring instruments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing																
Motor freight transportation	2	25.5	4	52.5	-	-	-	-	-	-	-	-	1	10.0	-	-
Communications	1	2.3	6	58.0	-	-	-	-	-	-	-	-	1	2.3	1	2.3
Electric, gas, and sanitary services	2	6.2	11	34.6	-	-	-	-	-	-	-	-	3	6.1	1	1.8
Wholesale trade	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food stores	-	-	5	13.1	-	-	4	8.5	1	12.0	-	-	-	-	-	-
Eating and drinking places	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous retail ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1.0
Insurance carriers	-	-	-	-	-	-	1	1.2	-	-	-	-	-	-	-	-
Hotels and other lodging	-	-	-	-	-	-	-	-	1	4.3	-	-	-	-	-	-
Business services	1	5.0	-	-	-	-	1	3.5	2	6.8	-	-	1	.9	-	-
Automotive repair	-	-	-	-	-	-	1	1.0	-	-	-	-	-	-	-	-
Motion pictures	2	47.3	-	-	1	18.0	1	18.0	-	-	-	-	-	-	-	-
Health services	-	-	2	32.0	1	1.1	4	12.5	3	3.7	-	-	-	-	6	33.1
Legal services	-	-	1	.9	-	-	-	-	-	-	-	-	-	-	1	.9
Educational services	1	1.2	-	-	-	-	1	1.2	1	3.5	-	-	-	-	-	-

NOTE: Dash indicates no contracts.

Table 10. Incidence of technology, maintenance, and operation safety clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007

Provision	Number of contracts	Percent of contracts
All contracts with safety and health provisions	433	100
Contracts with provisions for:		
Contractor safety	10	2
Lockout or tag-out	15	3
New-technology reviews (with built-in safety and health features)	39	9
Plastic injector moldings	4	1
Safety and health requirements in maintenance of equipment	10	2

Plastic injector moldings. These clauses include provisions in which the employer agrees to comply with applicable OSHA regulations and national consensus standards from the American National Standards Institute (ANSI) regarding the safe operation of plastic injector molding machines. The clauses recognize the very different hazards posed by the hydraulics used in plastic injector molding machines relative to conventional mechanical power machines. The low number of contracts (four) with these clauses is reflective of the specialized nature of this provision.

Safety and health requirements in maintenance. Proper maintenance is generally recognized as tantamount to the safe operation of equipment. Yet only 10 contracts contain provisions that require the employer to maintain equipment to ensure its safe operation.

Industry variations. Table 11 shows the frequency of contract clauses related to safety and health in new technology and the maintenance and operation of equipment, as well as the numbers of employees (in thousands) covered by each clause, by industry. No provisions relating to the work of contractors or to plastic injector moldings are contained in the six mining contracts. The absence of the former provision is understandable, as plastic injector moldings are used only in manufacturing settings. One-third of the mining contracts have provisions addressing safety and health requirements in the maintenance of equipment. Technology, maintenance, and operations safety provisions appear in only 3 of the 126 agreements in the construction industry. These provisions are not in any of the contracts in eight of the manufacturing industries (food and kindred products; textile mill products; apparel; printing; chemicals; stone, clay, and glass; fabricated metal; and measuring instruments). Only one contract in the lumber industry contains a provision involving the subjects of technology, maintenance, and operations safety. By contrast, almost half of the contracts in the primary metal manufacturing

industry have provisions on new-technology reviews. In addition, 30 percent of the agreements in both industrial machinery manufacturing and transportation equipment manufacturing have provisions on the subject.

The agreements with provisions relating to technology, maintenance, and operational safety constitute a small proportion of the total agreements shown in the table, ranging from a maximum of 9 percent for new-technology reviews to 1 percent for plastic injector moldings. Notwithstanding these small percentages, the provisions for all five subjects cover from 340,000 to 500,000 workers, or 18 percent to 26 percent, respectively, of all the workers covered by safety and health provisions. Consequently, the effect of the provisions is significantly greater than their incidence in collective bargaining agreements would appear to indicate.

Other provisions

In addition to the specific provisions discussed in the five major categories of occupational health; ergonomics; union-management relations; employee safety; and technology, maintenance, and operations, 55 percent of the agreements had one or more other provisions, including clauses relating to the following items:

- charging employees for safety violations
- assigning responsibility for fines imposed due to legal violations
- reporting accidents
- providing lockers and washup facilities
- providing sanitary facilities, supplying water, providing drinking cups, and providing facilities for employees to store their tools in off-hours at construction
- providing shower facilities for employees exposed to radiation
- complying with laws and regulations and industry standards and regulations
- authorizing union representatives to accompany government inspectors on safety inspections that are either periodic or motivated by perceived unsafe or unhealthy job conditions
- responding to emergency conditions not specifically identified in the agreement
- implementing workers' compensation procedures. (Some contracts designate a separate workers' compensation committee to investigate and manage problems with occupational injuries and illnesses.)

Comparisons with the 1976 study

The industry composition of the firms in the 1976 collective bargaining agreement database differs significantly from the

Table 11. Technology, maintenance, and operation safety clauses in private-sector collective bargaining contracts expiring between August 1997 and July 2007, by industry

[Workers in thousands]

Industry group	Contractor safety		Lockout and tag-out		New-technology review		Plastic injector moldings		Safety and health maintenance requirements	
	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers	Contracts	Workers
All industries	10	363.7	15	366.3	39	500.5	4	340.0	10	366.4
Mining	-	-	1	7.5	1	1.6	-	-	2	9.3
Construction										
Building construction	2	8.5	-	-	-	-	-	-	-	-
Heavy construction	-	-	-	-	-	-	-	-	-	-
Special trade construction ..	-	-	-	-	1	1.4	-	-	-	-
Manufacturing										
Food and kindred products	-	-	-	-	-	-	-	-	-	-
Textile mill products	-	-	-	-	-	-	-	-	-	-
Apparel	-	-	-	-	-	-	-	-	-	-
Lumber and wood products ..	-	-	-	-	1	2.2	-	-	-	-
Paper	-	-	2	2.3	1	.6	-	-	-	-
Printing	-	-	-	-	-	-	-	-	-	-
Chemicals	-	-	-	-	-	-	-	-	-	-
Rubber	-	-	2	3.7	3	5.1	1	2.5	1	2.5
Stone, clay, and glass	-	-	-	-	-	-	-	-	-	-
Primary metal	2	11.1	-	-	14	72.7	-	-	2	11.1
Fabricated metal	1	1.2	-	-	-	-	-	-	-	-
Industrial machinery	1	2.8	2	13.5	4	17.0	-	-	1	2.8
Electronic machinery	1	22.0	1	22.0	1	22.0	1	22.0	1	22.0
Transportation equipment	3	318.0	7	332.4	10	371.6	2	315.5	3	318.7
Measuring instruments	-	-	-	-	-	-	-	-	-	-
Nonmanufacturing										
Motor freight transportation	-	-	-	-	-	-	-	-	-	-
Communications	-	-	-	-	-	-	-	-	-	-
Electric, gas, and sanitary services	-	-	-	-	1	1.2	-	-	-	-
Wholesale trade	-	-	-	-	-	-	-	-	-	-
Food stores	-	-	-	-	1	1.2	-	-	-	-
Eating and drinking places ..	-	-	-	-	-	-	-	-	-	-
Miscellaneous retail	-	-	-	-	-	-	-	-	-	-
Insurance carriers	-	-	-	-	-	-	-	-	-	-
Hotels and other lodging	-	-	-	-	-	-	-	-	-	-
Business services	-	-	-	-	-	-	-	-	-	-
Automotive repair	-	-	-	-	-	-	-	-	-	-
Motion pictures	-	-	-	-	-	-	-	-	-	-
Health services	-	-	-	-	-	-	-	-	-	-
Educational services	-	-	-	-	1	3.5	-	-	-	-

NOTE: Dash indicates no contracts.

composition of the firms in the database used to select the sample for the study reported in this article (the 1997 database). The 1976 database consisted of 908 agreements (52.6 percent of the total) in manufacturing and 816 agreements in (47.3 percent of the total) in nonmanufacturing. By contrast, the 1997 database is composed of 399 (34.1 percent) and 769 (65.8 percent) agreements in manufacturing and nonmanufacturing, respectively. The scope of the two studies also varies. The researchers in the 1976 study examined 26 subjects; for the current article, 43 subjects were analyzed. Ninety-three percent of the 1,724 agreements in the

1976 database contained one or more of the 26 subjects. In the 1997 database, 58 percent of the agreements contain one or more of the 43 subjects. The major reason for this difference is that the most frequently appearing subject in the 1976 agreements was not included in the research reported in this article. This subject, compensation for job-related injuries, appeared in 60 percent of the 1976 agreements. In addition, another subject (sanitation, housekeeping, and personal hygiene) that appeared in 40 percent of the 1976 agreements was not included in the research reported here.

The contracts with safety and health provisions in the 1976 study covered 7.9 million workers, or about one-half of the number of workers who were included in collective bargaining agreements in the industries that were studied. The 433 agreements with safety and health provisions in the 1997 database of contracts expiring between August 1997 and July 2007 cover 1.8 million workers, or about 18 percent of the number of workers included in collective bargaining agreements in the industries examined.

There are some similarities and some differences in the relative frequency with which various subjects were covered in the 1976 and 1997 agreements. Because agreements in manufacturing constitute a smaller portion of the 1997 database, it is not surprising that some provisions, such as those involving first aid and medical facilities, protective clothing, and the refusal of hazardous work assignments, are less prevalent than in the 1976 agreements. These three provisions were in 13.9 percent, 23.7 percent, and 13 percent, respectively, of the 1997 agreements. In the 1976 database, the same three provisions were in 28.5 percent, 49.1 percent, and 13 percent, respectively, of the agreements. Four provisions that appeared with the same or approximately the same frequency in both agreements are those pertaining to union-management cooperation (41 percent in 1976 and 37 percent in 1997), safety training and talks (7.6 percent and 9.2 percent), joint labor-management safety and health committees (26.5 percent and 29.4 percent), and union stoppage of unsafe work (2.4 percent in both agreements). Another provision, that the union must be furnished accident reports, appeared more frequently in the 1997 agreements (19.7 percent, compared with 12.3 percent). Provisions involving separate grievance-reporting procedures appeared more frequently in the 1976 agreements (16 percent, as opposed to 13.5 percent).

THIS ARTICLE HAS ANALYZED the safety and health clauses in 744 private-sector collective bargaining agreements expiring between August 1997 and July 2007. The number of workers covered ranges from 650 to 215,000, a population that represents virtually all of the agreements covering 1,000 workers or more. Fifty-eight percent, or 433, of the agreements contain one or more of the 52 safety and health subjects selected for inclusion in the study. The workers covered by agreements with at least one safety and health provision represent 18 percent, or 1.8 million, of the number of workers in the 744 agreements that were examined.

The frequency with which the various provisions appeared in the 433 agreements, as well as the number of workers covered by agreements with provisions, were calculated. The clause that appears most frequently in the agreements is a pledge of union cooperation on matters of safety and health (64 percent). The next nine most frequently appearing provisions have to do with the establishment of a joint local labor-

management safety and health committee (50 percent), protective clothing (41 percent), safety "dos and don'ts" (36 percent), the furnishing of the union with OSHA reports (34 percent), the reporting of safety and health needs (31 percent), first aid and medical facilities (24 percent), the establishment of a separate safety and health grievance procedure (23 percent), local labor-management safety and health committee involvement in conducting ergonomic evaluations and studies (also 23 percent), procedures involving the refusal to perform hazardous work (22 percent), and local labor-management safety and health committee reviews of hazard communication programs (also 22 percent).

The provision covering the largest number of workers, 1.4 million, is a pledge of union cooperation on matters of safety and health. The next nine provisions covering the largest numbers of workers involve the establishment of a local labor-management safety and health committee (1.1 million workers), protective clothing (901,000), the establishment of a national labor-management safety and health committee (752,000), the refusal of hazardous work (727,000), the establishment of a separate safety and health grievance procedure (697,000), reporting safety and health needs (666,000), identifying cumulative trauma hazards (650,000), safety and health testing of employees (628,000), and safety "dos and don'ts" (627,000).

The top three provisions in order of frequency in the 433 contracts also had the same ordinal position in the number of employees covered. Thus, the pledge of union cooperation on matters of safety and health, which appeared the most frequently in the contracts (in 64 percent of the agreements), also was the provision that covered the most workers (1.4 million). The establishment of local labor-management safety and health committees was the second most frequently appearing provision (in 50 percent of the agreements) and also was second in coverage of workers (1.1 million). The third most frequently appearing provision, involving protective clothing (in 41 percent of the agreements), was third in worker coverage (901,000). After these three provisions, there is a disparity between the rankings for the frequency of the provisions and for the numbers of employees covered by them. For example, safety "dos and don'ts" was fourth in frequency among the 433 agreements and was 10th in worker coverage. The provision to furnish the union with OSHA reports was fifth in frequency in the contracts (34 percent), but was not among the top 10 in worker coverage. Provisions relating to first aid and medical facilities and to local labor-management safety and health committee involvement in conducting ergonomic evaluations and studies were two others among the top 10 in frequency in the agreements, but were not among the top 10 in numbers of employees covered. Conversely, provisions having to do with the establishment of a national labor-management safety and health committee, reporting of

safety and health needs, identifying cumulative trauma hazards, and safety and health testing of employees were among

the top 10 provisions in numbers of employees covered, but were not among the top 10 in frequency in the contracts. □

Footnotes

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¹ *Major collective bargaining agreements: safety and health provisions* (Bureau of Labor Statistics, 1976).

² *Lost-worktime injuries: characteristics and resulting time away from work, 1995* (Bureau of Labor Statistics, June 12, 1997).

³ *National census of fatal occupational injuries, 1996* (Bureau of Labor Statistics, Aug. 7, 1997).

⁴ *Lost-worktime injuries: characteristics and resulting time away from work, 1995* (Bureau of Labor Statistics, June 12, 1997).

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