Analyze and
Report Findings

DOE Workers

Annual Epidemiologic
Surveillance Report for
Brookhaven National
Laboratory

1995

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Introduction

The U.S. Department of Energy's (DOE) conduct of epidemiologic surveillance provides an early warning system for health problems among workers. This program monitors illnesses and health conditions that result in an absence of five or more consecutive workdays, occupational injuries and illnesses, and disabilities and deaths among current workers.

This report summarizes epidemiologic surveillance data collected from Brookhaven National Laboratory (BNL) from January 1, 1995 through December 31, 1995. The data were collected by a coordinator at BNL and submitted to the Epidemiologic Surveillance Data Center, located at Oak Ridge Institute for Science and Education, where quality control procedures and data analyses were carried out.

The annual report for 1995 has been redesigned from reports for previous years. Most of the information given in previous reports is also in this report, but some material now appears in the appendices instead of the main body of the report. The information presented in the main body of the report provides a descriptive analysis of the data collected from the site and the appendices provide more detail. This report provides information describing the work force by age and occupational groups. At the site's request, the occupational groups were redefined in 1994. Time trend analyses require a minimum of three years of data, so trends in specific occupational groups will begin with the 1996 report. The Glossary and Explanation of Diagnostic Categories have been expanded with more examples of health conditions to illustrate the content of each category.

The data presented in this report apply only to BNL. The DOE sites are varied, so comparisons of BNL with other DOE sites should be made with caution. It is important to keep in mind that many factors can affect the completeness and accuracy of health information collected at the sites as well as affect patterns of illness and injury observed.

Brookhaven National Laboratory AT A GLANCE, 1995:

- ◆ We observed no overall changes in illness or injury rates from previous years that indicate a significant emerging health issue among BNL workers.
- ◆ The percentage of men and women with at least one health event changed very little over the 1993-1995 period.
- ◆ A redefinition of occupational categories in 1994 requires that comparisons with various occupational groups in previous years' reports be made cautiously. The redefinition was done at the request of BNL to better align the occupational categories in Epidemiologic Surveillance reports with those used administratively on site.
- ◆ The lack of any reported absences among workers classified as managers in 1995 was noteworthy. There may actually have been no health events in this group that required an absence of 5 or more workdays, or these workers routinely did not report their illness absences. Less complete reporting of illness absences among salaried staff compared with hourly workers has been observed at most epidemiologic surveillance sites.
- ◆ The 1995 Epidemiologic Surveillance report has been redesigned from previous years. The new format places greater emphasis on separate analyses of men and women to reflect the different patterns of disease and injury they experience, and a more detailed assessment of occupational injuries is included. Readers who want additional detail will find extensive tables of rates and risk estimates included as appendices to the body of the report.

Site Overview

BNL is a DOE multidisciplinary research laboratory located 60 miles east of New York City in Suffolk County, Long Island, New York. Associated Universities, Inc. (AUI), a non-profit research management organization originally sponsored by nine northeastern universities, founded the laboratory in 1947 under contract to the Atomic Energy Agency. The laboratory was designed to provide non-defense basic and applied research in a multitude of disciplines, from physics, chemistry, and materials science to biology and medicine.

Over the years, BNL has built world-class scientific machines. In 1950, the Brookhaven Graphite Research Reactor — the world's first nuclear reactor built entirely for peacetime research purposes — began operation. Another scientific machine was added in 1952: the Cosmotron, the first particle physics accelerator to reach billion-electron-volt energies. In 1960, the Alternating Gradient Synchrotron, the workhorse of BNL's "big machines," was built to surpass the Cosmotron's capabilities and eventually yielded many new particles and phenomena.

BNL began conducting medical research in 1950 with the opening of the first hospital devoted to nuclear medicine. This research continued with the building of the Medical Research Center in 1958, the startup of the Brookhaven Medical Research Reactor (a three-megawatt reactor) in 1959, and the building of the Brookhaven Linac Isotope Producer in 1973.

In 1965, the High Flux Beam Reactor began providing neutrons to researchers of all disciplines. The beams of neutrons produced in the neutron's core are extremely useful for the biologists, solid-state physicists, materials scientists, and industrial scientists who come to BNL to conduct scientific exploration at the atomic level.

The newest of the "big machines" at BNL is the National Synchrotron Light Source (NSLS) which came on-line in 1982. The most-used scientific facility in the world, the NSLS produces x-rays and ultraviolet light capable of probing a vast array of materials.

BNL is dedicated to basic and applied investigation in a multitude of scientific disciplines. Experimental and theoretical physics, medicine, chemistry, biology, environmental research, engineering, and many other fields are represented by the nearly 1,000 BNL scientists and over 4,000 national and international visitors who come to BNL every year to use the facilities. With areas of the campus contaminated from past practices, the site was added to the Federal Superfund National Priorities List in 1989; remediation is proceeding.

Timeline of Major Activities at BNL

The BNL Work Force

A total of 3,717 employees were included in epidemiologic surveillance in 1995, 159 fewer workers than were present in 1994. There were almost three times as many men (2,766) as women (951) (figure 1). The BNL work force was relatively young compared to the general population. The average age of BNL workers was 45 among men and 41 among women (figure 1). The majority of the workers was White (82%). Asians comprised about 8% of the work force; African Americans 7%, and Hispanics and Native Americans made up the remainder (figures 2a and 2b).

Not all occupations pose equal risks for illness or injury, so we compared rates among several occupational categories to determine whether some occupational groups are at greater risk than others for these health events. The number of illnesses or injuries reported in any specific occupation may be very small in a given year or the number of workers in a given occupation may be small. These small numbers limit the certainty with which illness and injury rates can be calculated and compared, and in some cases were so few in number that we could not analyze specific occupations separately. The analyses in this report use broad occupational categories (figure 3) because there were not enough health events in many specific occupations to permit more detailed analyses. You can find which occupational category you are in by referring to figure 4 which lists many of the job titles that are grouped into each of the categories used for the analyses. Men and women were not distributed equally among the various occupational groups; we noted large gender differences in the scientific, administrative (both Exempt [E] and Nonexempt [NE]), supervisory technical support, and clerical groups (figure 3). Appendix A contains a more detailed distribution of the work force by gender, age, and occupational group.

Figure 1. The Work Force by Gender and Age

Figure 2a and 2b. Racial Composition of the Work Force by Gender

Figure 3. The Work Force by Gender and Occupation

Figure 4. Most Common Job Titles in Each Occupational Group

MANAGEMENT ADMINISTRATIVE MGR ASSISTANT SECRETARY ASSOC DEPT CHAIR ASSOC DIRECTOR ASSOC LAB DIRECTOR ASSOC RHIC PROJ DIR ASSOC RHIC PROJ HD ASST DEPT CHAIR ASST DIRECTOR ASST LAB DIRECTOR ASST MAGNET DIV HD ASST MGR HUMAN RESOURCES ASST RHIC PROJ DIR ASST TO CHRMN ADM ASST TO THE DIRECTOR BUDGET OFFICER BUSINESS MGR CHIEF INTERNAL AUDITOR COMPTG & COMM DIV HD DEPT ADMIN MGR DEPT CHAIR DEPUTY BUDGET OFCR DEPUTY DEPT CHAIR DEPUTY DEPT CHRMN DEPUTY DIR INTERNAL AUDIT DEPUTY DIRECTOR DEPUTY DIV HD DEPUTY FISCAL OFCR DEPUTY MGR ENVR RESTORATION DIR HUMAN RESOURCES DIRECTOR DIV HEAD DPTY MGR CNTR & PROC DPTY MGR MGT INFO SYST DPTY MGR OCCUP MED CLINIC DPTY MGR OPER & MAINT DPTY MGR PLANT ENGR "DPTY TO ASO DIR REAC, SAF&SEC" EMP ASSTNCE PROG MGR FISCAL OFFICER HD CTR ACCEL PHYS HD OCCUP MED CLINIC HFBR PLANT MGR IND HYG DPTY DIV HD LABORATORY COUNSEL LICENSING SPEC MASTER PLANNER MGR ADP ACQUISITION MGR BENEFITS MGR CENTRAL SHOPS MGR COMP AND HRIS MGR CONTRACTS & PROC MGR DIST COMPUTING SVCS MGR EMPLOYMENT MGR ENGRG & CONSTR SVCS MGR ENVR RESTORATION MGR INFO SVCS MGR INFRASTRUCTURE MGMT MGR LABOR RELATIONS MGR MATERIEL	MGR OF MGT INFO SYST MGR OFC OF EDUC PGMS MGR OFC OF SCI PERS MGR OPER & MAINT MGR PHOTO & GR ARTS MGR PLANT ENGRG MGR POLICE GROUP MGR PROJECT COORDNTN MGR PUBLIC AFFAIRS MGR QUALITY MANAGEMENT MGR REACTOR DIV MGR RHIC PROJ PLNG MGR SEC PLNG & ADTNG MGR SFGDS & SECURITY MGR STAFF SVCS MGR SYS SUPPORT SVCS MGR TECH SYSTEMS MGR TECHNOLOGY TRANSFER PHYSICIAN PRESIDENT "PROJ HD, FIN MGT & ACCT SYST" PROJ MGR ENVIRONMENT TECH RHIC PROJ DIRECTOR SPEC ASST TO ASSOC LAB DIR SPEC ASST TO ASST LAB DIR SR ENGR DIV HD SR HLTH PHYS DIV HD VICE PRESIDENT SCIENTIFIC ASSOC BIOCHEMIST ASSOC CHEMIST ASSOC ELECTRNCS ENGR ASSOC MECH ENGR ASSOC NUCL ENGR ASSOC PHYSICIST ASSOC SCIENTIST ASST BIOCHEMIST ASST BIOLOGIST ASST CHEMIST ASST ENGINEER ASST PHYSICIST ASST SCIENTIST BIOCHEMIST BIOLOGIST BIOPHYSICIST BOTANIST CHEM ENGR CHEMIST CIVIL ENGR COMP SCIENTIST ECOLOGIST ECONOMIST 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OPERATIONS SUPV CLINICAL SVCS SUPV EMPLOYEE COMMUN SUPV EXTERNAL COMMUN SUPV HOUSING SUPV INFO & PERS SEC
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Figure 4 (continued). Most Common Job Titles in Each Occupational Group

SUPV LIBRARIAN SUPV MUSEUM PROGRAMS SUPV OCPL HLTH NURSE SUPV PAYROLL OPERS SUPV PERSONNEL RECS SUPV SALARY ADMIN SUPV USER SERVICES SYSTEMS SPEC TRANSPORTATION SUPV TRAVEL SUPV VET SVCS SUPV	SR DRAFTING SPEC SR REACTOR SUPPORT SPEC SR TECH ASSOC SR TECH SUPV SR TECH SUPV P&GA SUPV TECHNICAL INFO TECH ASSOC I TECH ASSOC II TECH PROJECT SUPV TECH RES ASSOC TECH SUPV I TECH SUPV II TECH SUPV P&GA TELEPHONE SVCS SUPV TOWER LINE SUPV WATER SYSTEM SUPV WLDNG & SHT MTL SUPV	CLERICAL AND SUPPORT WAGE DATA SVCS ASST DATA SVCS CLERK HOSP SVCS ASST OFC SVCS ASST OFC SVCS CLERK RES SVCS ASST SECRETARY SR DATA SVCS ASST SR LAB TECH SR OFC SVCS ASST SR RES SVCS ASST SR SECRETARY SR VET SVCS ASST VET SVCS ASST	INSULATION WORKER LAB CUSTDN GRP LDR LAB CUSTODIAN LABORER LAUNDRY OPER A LAUNDRY OPERATOR B LNDRY OPR A GRP LDR LOCKSMITH LOCKSMITH GRP LDR MAC MNT MEC A GRP LD MACH MAINT MECH A MACH TOOL REBUILDER MAIL CLERK MASON MASTER METAL WORKER MASTER WELDER MASTER WELDER GRP LD METAL CUTTER A METAL WKR MAINT A MSTR MTL WKR GRP LDR MTL CUTTER A GRP LDR MTL WKR MT A GRP LDR NUCL REAC OPR OFC MACH REPAIR MECH P&GA OFC SPEC P&GA SPEC A P&GA SPEC A GRP LDR P&GA SPEC A-1 P&GA SPEC B PAINTER A PAINTER A GRP LDR PATROL OFCR 1 CLASS PATROL OFFICER PHOTOMICROGRAPHER PLUMBER A PLUMBER A GRP LDR RADIOACTIVE MAT TECH REF & AC ENGR REF A C ENGR GRP LDR REFRIG & AC APPRENTICE RESIDENCE CUSTODIAN RIGGER RIGGER GRP LDR RIGGERS ASST SERGEANT SEW TR PL OP A GR LD SEWAGE TREAT PL OP A SIGN PAINTER SPECIAL SVCS ATTDOT SR COMMUN CLERK SR FACIL OFC ASST SR GRAPHIC ARTS ANAL SR P&GA SPEC SR P&GA SPEC GRP LDR SR SUPPLY MATL CLK SR TECH PHOTOGRAPHER SR TECH PHOTOGRAPHER GRP LDR STATIONARY ENGR SR STEAMFITTER A STEAMFITTER A GRP LDR STEAMFITTER APPRENTICE	STNRY ENG SR GRP LDR STORES CLERK STOREKEEPER SUPPLY MATL CLERK TELEPHONE OPER TL & INS MKR GRP LDR TOOL & INSTR MAKER TOOL CRIB ATTENDANT TOWER LINE PERSON TWR LN PRSN GRP LDR W&S OPR ENGR GRP LDR WATER SWGE OPER ENGR
TECH SUPPORT/SUPV (E) ASST GEN SUPV CONST SUPPORT CABINET SHOP SUPV CAM PROGRAMMER CARPENTRY SUPV CHIEF PLANNER/ESTIMATOR CONSTRUCTION INSPCTR CONSTRUCTION SPT SPV CTRL STEAM PLNT SUPV DEPUTY FIRE CHIEF DESIGN ENGR DESIGN ENGR I ELECTRICAL SUPV FABRICATION PLAN SUPV FAC/PREVENTIVE MAINT SPEC FACILITIES INSPECTOR FIRE CAPTAIN FIRE CHIEF GEN SUPV BLDG MAINT GEN SUPV CUSTDL SVCS GEN SUPV ELECTRICAL GEN SUPV MACH SHOPS GEN SUPV MECHANICAL GEN SUPV RDS & GRNDS GLASSBLOWING SPEC II GROUNDS & SANIT SUPV HEATING SVC SUPV HVY EQ MAINT SUPV MACHINE SHOP SUPV MOTOR VEH MAINT SUPV NDT/QC INSPECTOR PLANNER/ESTIMATOR PLUMBING SUPV POLICE CAPTAIN POLICE INSPECTOR POLICE LIEUTENANT PREV MAINT COORD REACTOR MAINT SUPV REACTOR SUPPORT SPEC REF & A/C SUPV RIGGING SUPV ROADS & MASONRY SUPV S & M SUPV SCI COMP OPR SUPV SECURITY TRNG INSTR SHEET METAL INSUL SUPV SITE SUPV SR DESIGN ENGR SR DESIGNER	ADMINISTRATIVE (NE) ADM SVCS ASST ADMIN SECRETARY ASST VET SVCS SUPV COMP APPLCNS ASST COMP APPLCNS SPEC FISCAL ASST HUMAN RESOURCES ASST LAB SPEC LIBRARY ASST RECREATION ASST RECREATION REP REGISTERED NURSE SECRETARIAL SPEC SR ADM SVCS ASST SR ADMIN SECY SR BIS ASST SR BUDGET ASST SR COMP APPLCNS SPEC SR CONTR & PROC ASST SR FISCAL ASST SR HUMAN RESOURCES ASST SR LAB SPEC SR LIBRARY ASST SR PROGRAM ASST SR PUBLIC AFFRS ASST SR STAFF SVCS ASST SR TECH SECY STAFF SVCS ASST TECH SECRETARY	TECHNICAL COMPUTER OPR PRIN COMPUTER OPR PRIN DRAFTER PRIN TECHNICIAN SR COMPUTER OPR SR TECHNICIAN TECHNICIAN	BARGAINING UNITS AUTO TRCK MCH GRP LD AUTO TRUCK MECHANIC AUTOMOTIVE OFC CLERK BLDG GRNDS UTIL WKR CABINETMAKER A CARPENTER CARPENTER GRP LDR CHAUFFEUR CLERICAL TRAINEE CNC/NC OPERATOR CS OFC SPEC CUSTODIAN DRIVER ELECTR A GRP LDR ELECTRICIAN A ELECTRICIAN APPRENTICE EXPER WELDER FACILITIES OFC ASST FINISHER A FIRE LIEUTENANT FIREFIGHTER/EMT GEN COMMUN CLERK GRAPHIC ARTS ANALYST GRAPHIC DESIGNER GUARD HAZARDOUS WASTE TECH HEATING MAINT ENGR A HELPER A HS TRAINEE CLRK HS TRAINEE TECH HVY EQ MCH OP GRP LDR HVY EQUIP MECH OPER ILLUSTRATOR INSLTN WKR GRP LDR	MISCELLANEOUS ACCEL ENGR INTERN CLERICAL ASST CO-OP ENGR GEM FELLOW GRADUATE RESEARCH FELLOW PARTICIPING RES TEAM ASSOC PARTICIPING RES TEAM SPEC PROF INTERN RECREATION ATTDOT SCI EDUC INTERN STUDENT ASST TECH INTERN TOUR WORKER TRANSPORTATION COORD INTERN

Work Force Demographics

Over the three-year period from 1993 to 1995, the size of the BNL work force has fluctuated from a low of 3,480 in 1993 to a high of 3,876 in 1994 followed by a slight decline to 3,717 in 1995. The percentage of men and women has remained constant with women making up about 25% of the work force each year. The age distribution of workers has remained relatively unchanged over the time period (figures 5 and 6). Because of the change in the definition of the occupational categories in 1995, we are unable to evaluate how the predominant jobs may have changed over the three-year period. Beginning with the 1996 report, this evaluation will be included.

Figure 5. Percentage of Men in Different Age Groups, 1993 to 1995

Figure 6. Percentage of Women in Different Age Groups, 1993 to 1995

Number and Length of Absences

As in other Epidemiologic Surveillance reports, this report includes absences that lasted at least five consecutive workdays. Epidemiologic surveillance refers to absences due to illness or injury as "health events" and uses the five-day length of absence because DOE Order 440.1 requires contractor management to notify Occupational Medicine when a worker has been absent for five or more consecutive workdays. Although occupational injuries and illnesses must be reported regardless of duration of absence, nonoccupational illnesses and injuries that involve absences shorter than five consecutive workdays do not routinely require a medical clearance for return to work. As a result, nonoccupational injuries and illnesses involving fewer than five workdays are not identified consistently. Throughout this report, the analyses take gender, age, and occupation into account because the risk of illness and injury varies by these factors. For analyses that examine duration of absence, the reported number of days absent includes weekends unless otherwise stated.

The percentage of men with at least one health event (7%) was only slightly greater than that of women (6%) in 1995. The total number of absences was about three times higher among men, reflecting the fact that the work force contained almost three times as many men as women (figure 1). A similar percentage of men and women had one or more absences in 1994 (7%) and 1993 (6.6%).

How Are Percentages Calculated?

The percentages are calculated by dividing the number of workers with at least one health event in a given age and gender group by the number of employees in the same group. This number is multiplied by 100 to give a percent. The number of employees in each group is shown in figure 1. An example is given below:

$$\frac{10}{215} = .047 \times 100 = 5\%$$

(number of men aged 16-29 with at least one health event from figure 7)

(number of men in the work force aged 16-29 from figure 1)

Figure 7. Workers with at Least One Health Event by Gender and Age*

*Numbers in parentheses represent the number of workers with at least one event.

The percentage of men reporting at least one health event increased with age to a high of 8% in those aged 50 to 59 years and then declined. Among women, the percentage increased to a high of 7% among 30 to 39 year olds and then declined steadily as age increased (figure 7). The duration of absence was similar for men and women 50 or more years of age. In the 40-49 age group, women had substantially shorter absences than men (17.5 days for women versus 24.6 days for men). In workers age 16 to 39 the opposite occurred. Women averaged 27.3 days and men averaged 20.4 days for each absence (figure 9). The longer average duration of absences among women aged 16 to 39 may reflect maternity leave. Pregnancy/childbirth was the diagnostic category with the highest number of days absent for women in these age groups (appendix G).

In examining the percentage of various occupational groups that recorded at least one absence (figure 8), the single most striking observation was the lack of any recorded absences among managers in 1995. There may actually have been no health events in this group that required an absence of 5 or more workdays, or these workers routinely did not report their illness absences. Women in the supervisory and

Figure 8. Workers with at Least One Health Event by Gender and Occupation*

*Numbers in parentheses represent the number of workers with at least one event.

technical support group had the highest percentage of workers with one or more absences, but the percentage reflects only 4 absences among these 13 workers. Both men and women in the bargaining units group had the next highest percentage of workers (20%) with a health event (figure 8). In those occupational groups distinguishing between exempt and nonexempt personnel, the nonexempt categories generally reflected a higher percentage of workers reporting at least one absence.

Although the percentage of bargaining unit workers with at least one absence was higher than most other groups, the average length of their absences (24.2 days) was similar to the average for the entire work force (23.4 days). The clerical and support wage group had the highest average number of days absent (37.2 days) per health event followed by the scientific group (34.4 days). Additional information about the number and length of absences for men and women in different age and occupational groups is in figures 9 and 10 and appendices B-E. The Rates of Disease Occurrence section of this report examines the diagnoses underlying these absences.

Figure 9. Number of Days Absent by Gender and Age

	Age Group	Total Number of Days Absent		Total Number of Health Events		Average Number of Days Absent
Men	16-29	164	$\div$	12	$=$	13.7
	30-39	1,424		66		21.6
	40-49	1,750		71		24.6
	50-59	1,598		69		23.2
	60+	493		17		29.0
	Total	5,429		235		23.1
Women	16-29	209	$\div$	8	$=$	26.1
	30-39	718		26		27.6
	40-49	333		19		17.5
	50-59	307		11		27.9
	60+	45		2		22.5
	Total	1,612		66		24.4

Figure 10. Number of Days Absent by Gender and Occupation

	Occupation	Total Number of Days Absent	Total Number of Health Events	Average Number of Days Absent
Men	Management	0	0	0.0
	Scientific	91	5	18.2
	Professional	242	10	24.2
	Administrative (E)	103	6	17.2
	Tech Support/Supv (E)	689	26	26.5
	Administrative (NE)	104	1	104.0
	Tech Support/Supv (NE)	619	37	16.7
	Clerical and Support Wage	0	0	0.0
	Technical	147	17	8.6
	Bargaining Units	3,434	133	25.8
	Miscellaneous	0	0	0.0
	Total	5,429	235	23.1

	Occupation	Total Number of Days Absent	Total Number of Health Events	Average Number of Days Absent
Women	Management	0	0	0.0
	Scientific	150	2	75.0
	Professional	12	1	12.0
	Administrative (E)	103	5	20.6
	Tech Support/Supv (E)	7	1	7.0
	Administrative (NE)	186	9	20.7
	Tech Support/Supv (NE)	145	4	36.3
	Clerical and Support Wage	483	13	37.2
	Technical	14	1	14.0
	Bargaining Units	512	30	17.1
	Miscellaneous	0	0	0.0
	Total	1,612	66	24.4

Diagnostic Categories

Epidemiologic surveillance monitors both occupational and nonoccupational illnesses and injuries among active workers. For many health conditions it is not possible to say with certainty what caused the health problem, so epidemiologic surveillance assesses the health of the work force by including both occupational injuries and illnesses and health problems that are not necessarily attributed to workplace exposures. Most of the diagnoses are reported by the workers when they visit their site's occupational medicine clinic for a return-to-work clearance following an absence. In contrast, health events are recorded on the OSHA 200 Log because they are occupationally related. We conduct separate analyses of the occupational injuries and illnesses recorded in the OSHA 200 Log because they have been designated as occupational, whether or not they involve an absence.

This report organizes diagnoses into categories based on the type of disease or condition (e.g., cancer) or body system (e.g., lung/respiratory) affected. Categories can be broken down into specific health conditions. For example, rheumatism is one health condition under the diagnostic category of muscles and skeleton. Bronchitis is a condition in the lung/respiratory category. You can find specific health conditions in the Explanation of Diagnostic Categories on pages 39-43 of this report. A health event can involve more than one diagnosis, and epidemiologic surveillance includes all diagnoses reported. If a worker reported more than one health condition for a single absence and all of these health conditions fell into the same diagnostic category, all of them were counted.

As in 1994, injury and poisoning, lung/respiratory, and muscles and skeleton were the three categories occurring most frequently among men and women. The injury and poisoning and muscles and skeleton diagnostic categories were among those with the most calendar days of absence (figure 11). These injuries were primarily nonoccupational. Some of the more common diagnoses within the frequently occurring categories for 1995 are shown in figure 12.

The most frequently reported health conditions varied with age and gender (figure 13 and appendix F). Lung/respiratory conditions ranked among the top three categories for men in all age groups. Acute respiratory infections such as colds accounted for 55% of the lung/respiratory conditions. Sinusitis, flu, pneumonia, and bronchitis made up the remainder. Injury and poisoning was among the top three for all age groups except the 50-59 age group. Sprains and strains accounted for 45% of the injuries reported among men. Other frequently reported injuries included fractures (14%), dislocations (8%), and bruises (16%). Conditions affecting the muscles and skeleton ranked among the top three for men aged 30 to 59. Back problems accounted for 53% of these diagnoses, rheumatism for 23%, and arthritis for 17%. Diseases of the heart/circulatory system ranked high among men 50 years and older. Ischemic heart disease (restricted blood flow through an artery) accounted for 32% and high blood pressure and stroke each accounted for 21% of these diagnoses.

Lung/respiratory diagnoses were among the top two diagnostic categories for women under 60 years of age. The types of conditions were similar to those reported by men. Conditions related to the muscles and skeleton were common among women 30 to 49 and 60+ years of age, with back problems and rheumatism comprising the majority of the diagnoses. Injury and poisoning were also reported by women in the 16-29 and 40-49 age groups. Most of these events involved sprains and strains.

Diagnoses for injury and poisoning occurred relatively frequently in this work force. None of the 78 diagnoses was related to poisoning. Complications of medical care are also included in the injury and poisoning category; two such diagnoses were reported. One was a hemorrhage (severe bleeding) and the

other was a postoperative infection. Injury and poisoning was among the top three categories for men in 7 of the 11 occupational groups. For three of the remaining four occupational groups, no absences were reported in 1995 among men. These groups are management, clerical and support wage, and miscellaneous (figure 14). The predominant type of injury was sprains and strains, followed by contusions, fractures, and dislocations. Lung/respiratory and muscle and skeleton conditions were among the top three categories reported for men in 5 of the 11 occupational groups. Among men in the scientific group, the conditions reported most frequently were different from those reported by other occupational groups. However, men in this group reported only six diagnoses: two for heart/circulatory conditions, and one each in four other categories (figure 14 and appendix H). Among the technical support/supervisory (E) group, six heart/circulatory diagnoses were reported: three for ischemic heart disease and the other three each for a different condition. Digestive conditions were the most frequently seen category among men in the administrative (E) group. Four diagnoses were reported: two diverticulitis (inflammation of the large intestine) and one each for a condition of the mouth and a hernia. Although there were clear differences in the reported illnesses and conditions affecting men in various occupational groups, there we saw no indication of patterns suggesting the need for further assessment.

Among women, injury and poisoning, lung/respiratory, and muscles and skeleton diagnoses occurred often among the top three diagnostic categories reported in each occupational group. The management and miscellaneous groups did not report any absences among women in 1995. For some occupational groups, other diagnostic categories were more prominent, but these occurrences usually reflected very small numbers of events (appendix H). The only exceptions were genitourinary conditions in the administrative (NE) group and digestive diagnoses in the clerical and support wage group. Five genitourinary diagnoses were reported among two administrative (NE) women: one woman reported three breast disorders (two benign abnormalities of the breast tissue and one enlargement of the breast tissue) and one each of two different reproductive disorders (appendix H). The three digestive diagnoses reported for the clerical and support wage group were each for a different diagnosis. Overall, we observed no patterns suggesting the presence of health issues in need of further investigation.

Figure 11. Total Number of Health Conditions Reported and Total Number of Days Absent from Work by Gender and Diagnostic Category

Diagnostic Category	Men		Women	
	Total Number of Health Conditions Reported	Total Number of Days Absent	Total Number of Health Conditions Reported	Total Number of Days Absent
Benign Growths	4	93	2	94
Blood	3	153	1	54
Cancer	3	165	0	0
Digestive	24	563	7	165
Endocrine/Metabolic	3	96	2	49
Genitourinary	8	194	10	208
Heart/Circulatory	28	966	2	48
Infections/Parasites	7	109	3	21
Injury and Poisoning	64	2,463	14	365
Lung/Respiratory	98	896	23	189
Mental	1	6	3	55
Pregnancy/Childbirth	0	0	6	486
Muscles and Skeleton	49	1,844	13	308
Nervous System	10	156	4	137
Skin	6	110	0	0
Unspecified Symptoms	15	219	4	73

Figure 12. Health Conditions Reported Under Selected Diagnostic Categories by Gender

Men		Women
Cancer <ul style="list-style-type: none"> • Esophagus • Eye • Prostate 	Muscles and Skeleton <ul style="list-style-type: none"> • Arthritis • Disc Disorders • Low Back Pain • Rheumatism • Soft Tissue Disorders in a Limb • Tendonitis 	Cancer <ul style="list-style-type: none"> • None Reported
		Injury and Poisoning <ul style="list-style-type: none"> • Fractures • Sprains and Strains • Superficial Injuries
		Lung/Respiratory <ul style="list-style-type: none"> • Bronchitis • Laryngitis • Sinusitis • Sore Throat • Upper Respiratory Infection
Injury and Poisoning <ul style="list-style-type: none"> • Bruises • Dislocations • Fractures • Late Effects of an Injury • Open Wounds • Sprains and Strains 		Muscles and Skeleton <ul style="list-style-type: none"> • Disc Problems • Low Back Pain • Rheumatism
Lung/Respiratory <ul style="list-style-type: none"> • Bronchitis • Flu • Laryngitis • Pneumonia • Sinusitis • Sore Throat • Upper Respiratory Infection 		

Figure 13. Three Diagnostic Categories Reported Most Often by Gender and Age

		16-29	30-39	40-49	50-59	60+
Men	Most Common Diagnostic Category	Lung/Respiratory	Injury and Poisoning	Lung/Respiratory	Lung/Respiratory	Lung/Respiratory
	Second Most Common Diagnostic Category	Injury and Poisoning	Lung/Respiratory	Injury and Poisoning	Muscles and Skeleton	Heart/Circulatory
	Third Most Common Diagnostic Category	Unspecified Symptoms	Muscles and Skeleton	Digestive; Muscles and Skeleton	Heart/Circulatory	Injury and Poisoning
Women	Most Common Diagnostic Category	Injury and Poisoning	Lung/Respiratory	Injury and Poisoning	Genitourinary	Muscles and Skeleton
	Second Most Common Diagnostic Category	Digestive; Lung/Respiratory	Muscles and Skeleton	Lung/Respiratory; Muscles and Skeleton	Lung/Respiratory	Nervous System
	Third Most Common Diagnostic Category	Unspecified Symptoms (1)	Pregnancy/Childbirth	Digestive	(2)	None

(1) This diagnostic category was reported the same number of times as the one above it.

(2) More than two diagnostic categories tied.

Figure 14. Three Diagnostic Categories Reported Most Often by Gender and Occupation

		Management	Scientific	Professional	Administrative (E)	Tech Support/ Supv (E)	Administrative (NE)
Men	Most Common Diagnostic Category	None	Heart/Circulatory	Injury and Poisoning	Digestive	Lung/Respiratory	Injury and Poisoning
	Second Most Common Diagnostic Category	None	Benign Growths; Digestive	Lung/Respiratory	Injury and Poisoning	Heart/Circulatory	None
	Third Most Common Diagnostic Category	None	Genitourinary (1); Injury and Poisoning (1)	(2)	Muscles and Skeleton (1)	Muscles and Skeleton; Nervous System	None
Women	Most Common Diagnostic Category	None	Mental	Lung/Respiratory	Muscles and Skeleton; Nervous System	Pregnancy/Childbirth	Genitourinary
	Second Most Common Diagnostic Category	None	Pregnancy/Childbirth	None	Injury and Poisoning; Lung/Respiratory	None	Lung/Respiratory (1)
	Third Most Common Diagnostic Category	None	None	None	Unspecified Symptoms (1)	None	Injury and Poisoning

		Tech Support/ Supv (NE)	Clerical and Support Wage	Technical	Bargaining Units	Miscellaneous
Men	Most Common Diagnostic Category	Lung/Respiratory	None	Lung/Respiratory	Lung/Respiratory	None
	Second Most Common Diagnostic Category	Injury and Poisoning	None	Injury and Poisoning	Injury and Poisoning	None
	Third Most Common Diagnostic Category	Muscles and Skeleton	None	Muscles and Skeleton	Muscles and Skeleton	None
Women	Most Common Diagnostic Category	Digestive; Endocrine/Metabolic	Digestive	Digestive	Lung/Respiratory	None
	Second Most Common Diagnostic Category	Heart/Circulatory (1); Injury and Poisoning (1)	Lung/Respiratory	None	Muscles and Skeleton	None
	Third Most Common Diagnostic Category	Muscles and Skeleton (1)	Pregnancy/Childbirth	None	Injury and Poisoning	None

(1) This diagnostic category was reported the same number of times as the one above it.

(2) More than two diagnostic categories tied.

Rates of Disease Occurrence

Some occupational groups had only a small number of workers who reported very few health events in 1995 (appendix H). Because events among a small number of workers can vary widely just by chance, the eleven occupational groups were combined into six larger groups for analysis. The five age groups were also combined into two age groups for the same reasons (figures 15 and 16). The age groups, less than 40 years and 40 years and older, were chosen because the rates of many illnesses begin to change more rapidly among persons over 40 years of age.

The likelihood of getting cancer increases with age, and the three cancer diagnoses were all among workers over age 40 (appendix F). Although this report discusses rates of cancer diagnoses, one cancer diagnosis can be associated with several absences over a year. The rates are not comparable to incidence rates, which reflect the number of new cancer diagnoses in a population over a specified period of time (usually one year). Incidence rates count a cancer diagnosis only once, but a worker who is absent for a week on four different occasions during the same year could have four "diagnoses" recorded for epidemiologic surveillance. Cancer rates presented in this report are really absence rates related to cancer, and because a worker may experience many absences related to the same cancer diagnosis, the cancer rates in this report can appear substantially higher than the actual incidence of cancer. All three cancer diagnoses reported during 1995 were reported by three men. In 1994, two men reported four cancer diagnoses and one woman reported one cancer diagnosis. None of the men who reported cancer in 1995 reported the same cancer in 1994. Among men, the sites of the three cancers were the esophagus, eye, and prostate. We found no evidence of an excess of any one type of cancer or any occupational group at significantly increased risk for this disease.

Rates of heart/circulatory system disease were consistently higher among workers over age 40 (figure 16). Of the 30 heart/circulatory diagnoses reported, only 1 diagnosis occurred in a worker under age 40. Eighteen of the 28 diagnoses for men involved hypertension (high blood pres-

A Word about Rates...

The previous section considered the **number** of health events among various groups, but comparing these numbers may be misleading. For example, figure 11 shows that during 1995 men reported 49 diagnoses involving muscles and skeleton; women reported 13. You can honestly say that men reported over three and a half times as many muscles and skeleton disorders as women. Does this mean that men were at greater risk of these disorders in 1995? Comparing the number of muscles and skeleton disorders among men versus women will not answer this question. To answer the question, the number of men and women in the work force must be considered (figure 1). Since there are almost three times as many men as women at BNL, it is reasonable to expect more muscles and skeleton disorders among men than women. A more accurate way to compare men and women is to calculate the rate of muscles and skeleton disorders for each group. The rates are calculated by dividing the number of muscles and skeleton diagnoses in a given group by the number of employees in the same group. This number is multiplied by 1,000 to give a rate per 1,000 workers. For example:

$$(49 \text{ muscles and skeleton disorders} \div 2,766 \text{ men}) = .018 \times 1,000 = 18 \text{ muscles and skeleton disorders per 1,000 men}$$

$$(13 \text{ muscles and skeleton disorders} \div 951 \text{ women}) = .014 \times 1,000 = 14 \text{ muscles and skeleton disorders per 1,000 women}$$

These rates account for differences in the number of men and women in the work force, and comparing them suggests that the rate per 1,000 of reported muscles and skeleton disorders among men is only slightly greater than that of women. They are called **crude rates** because they do not account for differences between men and women with regard to age, occupation, and other factors that might affect the individual's risk of having a muscle and skeleton disorder. Not all age groups are equally susceptible to various diseases and injuries, so epidemiologists often take age into account when calculating rates. For example, figure 16 shows that injury and poisoning rates vary not only by occupation but also by both age and gender. Because these differences can be dramatic, age-specific rates for workers under age 40 and those age 40 and older are presented in this section of the report. Definitions of **diagnostic rates** and **age-specific rates** appear in the Glossary of this report.

sure), ischemic heart disease (including restricted blood flow through an artery and heart attack), or irregular heart beat (appendix F). Two diagnoses for heart/circulatory disease among women both occurred in the 50-59 age group. One diagnosis was for ischemic heart disease and the other for congestive heart failure (appendix F). Workers in the technical and bargaining units groups showed the highest rates of heart/circulatory disease (figure 16, appendix H). Workers in the bargaining units group were 6 times more likely to report a heart/circulatory diagnosis than workers in other occupational groups (appendix J). The higher rates observed in technical and bargaining unit workers may reflect a combination of factors, perhaps including differences in lifestyle that may increase the risk of heart disease, but it is likely that at least part of the explanation lies in different completeness of reporting by various occupational groups. At all of the DOE sites participating in epidemiologic surveillance, hourly workers and those who are supervised more closely are more likely to report through the medical department than are workers who work more independently with less supervision. Another possible reason is that an illness involving the heart or circulatory system may preclude a worker returning to work quickly if his or her job is physically demanding, but a worker whose tasks are not physically demanding may be able to return to work much sooner, perhaps before five days of absence have accrued.

The lung/respiratory category contains very different kinds of diseases: acute infectious diseases such as colds, influenza, and pneumonia; allergies, sinusitis, and bronchitis; and chronic diseases like asthma and emphysema. Sixty-nine percent of the lung/respiratory diagnoses involved acute infections, influenza, or pneumonia (appendix H). Women generally had higher rates of lung/respiratory disease than men, a pattern that has been noted frequently at the DOE sites participating in epidemiologic surveillance. The bargaining units group showed the highest rates of lung/respiratory diagnoses for both men and women (figure 16). Respiratory disease risk among bargaining units workers was almost 8 times higher than other occupational groups. Workers in the technical group were almost 4 times more likely to report a respiratory condition than other occupational groups (appendix J). The increased risk reflected an increase in all types of respiratory diseases, not any one in particular (appendix H).

In the injury and poisoning category, none of the 78 diagnoses involved poisoning, so this category really focuses on injuries. Injury rates were generally higher among younger workers than older workers (figure 16). The types of injuries reported were similar for both men and women. Three types of injuries accounted for the majority of the diagnoses: sprains and strains (45%), bruises (14%), and fractures (14%). The higher injury rates among women in the bargaining units group were based on eight diagnoses, of which four were sprains and strains (appendix H). There were six sprains and strains among all women in 1995.

The bargaining unit workers as a whole were about 5 times more likely to report an injury and poisoning diagnosis than were other occupational groups. They were almost 6 times more likely to report back sprains and strains and 15 times more likely to report other sprains and strains (appendix J). Eight (57%) of the 14 back sprains and strains and 16 (76%) of the other sprains and strains reported were among the bargaining units workers, who made up 17% of the work force (figure 3, appendix H). Technical support/supervisory (NE) workers were about 4 times more likely to report back sprains and strains than were other occupational groups (appendix J). Four (29%) of the 14 back sprains and strains reported were among the technical support/supervisory (NE) workers, who made up 9% of the work force (figure 3, appendix H).

Figure 15. Rates per 1,000 for All Diagnostic Categories Combined by Gender, Age, and Occupation

All Diagnostic Categories	Occupational Group	Age	Rate per 1,000	
			Men	Women
Management, Administrative, and Clerical	<40	26	99
		40+	41	66
	Scientific	<40	0	49
		40+	14	0
	Professional	<40	12	27
		40+	22	0
	Technical	<40	114	136
		40+	176	190
	Bargaining Units	<40	290	393
		40+	383	389
	Miscellaneous	<40	0	0
		40+	0	0

Figure 16. Rates per 1,000 for Selected Diagnostic Categories by Gender, Age, and Occupation

Diagnostic Category	Occupational Group	Age	Rate per 1,000	
			Men	Women
Management, Administrative, and Clerical	<40	0	0
		40+	0	0
	Scientific	<40	0	0
		40+	0	0
	Professional	<40	0	0
		40+	3	0
	Technical	<40	0	0
		40+	4	0
	Bargaining Units	<40	0	0
		40+	0	0
	Miscellaneous	<40	0	0
		40+	0	0

(continued)

Figure 16 (continued).
Rates per 1,000 for
Selected Diagnostic
Categories by Gender,
Age, and Occupation

Diagnostic Category	Occupational Group	Age	Rate per 1,000	
			Men	Women
Heart/Circulatory	Management, Administrative, and Clerical	<40	0	0
		40+	0	0
	Scientific	<40	0	0
		40+	5	0
	Professional	<40	0	0
		40+	3	0
	Technical	<40	0	0
		40+	18	48
	Bargaining Units	<40	5	0
		40+	50	19
	Miscellaneous	<40	0	0
		40+	0	0
Lung/Respiratory	Management, Administrative, and Clerical	<40	0	42
		40+	0	3
	Scientific	<40	0	0
		40+	0	0
	Professional	<40	0	27
		40+	6	0
	Technical	<40	46	0
		40+	55	0
	Bargaining Units	<40	81	89
		40+	125	130
	Miscellaneous	<40	0	0
		40+	0	0
Injury and Poisoning	Management, Administrative, and Clerical	<40	26	10
		40+	12	9
	Scientific	<40	0	0
		40+	2	0
	Professional	<40	4	0
		40+	6	0
	Technical	<40	33	45
		40+	23	0
	Bargaining Units	<40	105	71
		40+	46	74
	Miscellaneous	<40	0	0
		40+	0	0

Time Trends

Over the three-year period, the rates of cancer, heart/circulatory and lung/respiratory conditions, and injury and poisoning did not change for women. Among men, this was also true with one exception—lung/respiratory conditions. In 1995, the rate of lung/respiratory conditions increased significantly from 1993 and 1994. This increase resulted from an increase in acute respiratory infections, especially diagnoses for sore throat and laryngitis.

Figure 17. Age-Adjusted Rates for Selected Diagnostic Categories by Gender, 1993 to 1995

*For 1993, rate based on external causes of injury data; for 1994 and 1995, rate based on injury and poisoning data.

Occupational Sentinel Health Events

An occupational sentinel health event (SHEO) is a disease, disability, or injury whose occurrence may serve as a warning signal that workplace conditions may need to be changed or additional attention may be required to reduce its occurrence. Injuries and poisonings resulting from accidents in the workplace as well as 64 disease conditions have been identified as SHEOs from studies of workplace exposures and disease in many different industries (appendix K). Although SHEOs may indicate an occupational exposure, many SHEOs can also result from non-occupational exposures or may reflect the combined effects of both occupational and nonoccupational exposures. Because the occupational status of many SHEOs is uncertain, we assess them in the following three categories (appendix K has additional information about what diseases and conditions are included in each SHEO).

Definitely SHEOs: Consists of diseases that are unlikely to occur in the absence of an occupational exposure. Asbestosis, a lung condition resulting from exposure to asbestos, is an example of this group.

Possibly SHEOs: Includes such conditions as lung cancer and carpal tunnel syndrome, which may or may not be related to occupation. Additional information about the person's hobbies, personal habits, and work history are required to establish a link between disease and occupation. For example, lung cancer can result from asbestos exposure as well as smoking. Carpal tunnel syndrome may result from a job requiring typing or from a hobby such as playing piano.

Accidents: Includes all types of on-the-job accidents and resulting health conditions. Accidents specifically identified as occurring in the home, on the farm, or during recreation are excluded.

We identified 28 of the 301 health events (9%) reported in 1995 as SHEOs, and 24 of the SHEOs involved accidents (figures 18 and 19). Fourteen accidents were specifically indicated as occurring in the workplace. A total of 254 workdays were missed as a result of these workplace accidents; almost half (43%) of the accidents occurred in workers in the 40-49 age group; over half (57%) occurred in the bargaining units group. Of the four SHEOs that did not result from a specific accident, one involved carpal tunnel syndrome. This BNL worker, who was in the 50-59 age group and the technical support/supervisory (E) group, missed a total of 29 days due to this diagnosis.

Figure 18. Characteristics of Health Events for SHEOs and Days Absent by Gender

		Total Number of Workers	Total Number of Health Events	Total Number of Health Conditions	Total Number of Days Absent
Men	Definite	10	11	14	225
	Possible	3	4	4	122
	Accident	10	10	11	277
	Total	23	25	29	624
Women	Definite	3	3	3	29
	Possible	0	0	0	0
	Accident	0	0	0	0
	Total	3	3	3	29

Figure 19. Number of Accidents by Gender, Age, and Occupation*

Occupation	Age Group - Men					Age Group - Women		Total
	16-29	30-39	40-49	50-59	60+	30-39	40-49	
Professional			1					1
Administrative (NE)					1			1
Tech Support/Supv (NE)		1	4					5
Technical	1		1	1	1			4
Bargaining Units	2	4	3	1		1	2	13
Total	3	5	9	2	2	1	2	24

*Blank space is equal to zero.

Disability Among Active Workers

At BNL, a worker is placed on long-term disability when absent six months. Thirty-six workers were placed on long-term disability in 1995 (figure 20). Information about the medical reason for the disability was available for 32 of the 36 workers. Among these 32 workers, 8 were on disability for back disorders; 7 for cancer; 4 for heart disease, 3 for diabetes; 2 each for mental disorders and sprains and strains; and 1 each for arthritis, connective tissue disease, fracture, kidney stones, phlebitis, and stroke. The sites of the 7 cancers were 2 each of breast and lung, and 1 each of bladder, pancreas, and leukemia. While workers aged 50 to 59 made up 23% and workers aged 60+ made up 9% of the work force, 50-59 year olds accounted for 36% and 60+ year olds for 25% of the disabled workers.

Two women and two men who went on disability in 1995 died before the end of the year. The causes of death were leukemia, lung cancer, heart disease, and a stroke. These were also the reasons each worker went on disability, except for the one death from heart disease. The reason for the disability was not reported for this worker. Because these deaths occurred among workers who were on disability, they are not included in the Deaths Among Active Workers section of this report. Disabled workers were excluded from other analyses that focus on active workers. BNL did not report disability data in 1993 or 1994.

Figure 20. Workers Placed on Long-Term Disability by Gender, Age, and Occupation*

Occupation	Age Group - Men					Age Group - Women				Total
	16-29	30-39	40-49	50-59	60+	16-29	30-39	40-49	50-59	
Management				1						1
Scientific					1					1
Professional					1				1	2
Administrative (E)		1						1		2
Tech Support/Supv (E)		1		2	1					4
Administrative (NE)							1	1		2
Tech Support/Supv (NE)					1					1
Clerical and Support Wage							1	1		2
Technical								1	1	2
Bargaining Units	1	2	2	7	5	1			1	19
Total	1	4	2	10	9	1	2	4	3	36

*Blank space is equal to zero.

Deaths Among Active Workers

During 1995, all five deaths that occurred among active workers were men. As in 1993 and 1994, the predominant causes of death were cancer and heart disease. Four deaths were due to heart/circulatory disease and the other to cancer of the bladder. All three deaths that occurred in the 40-49 age group were the result of heart disease. These men were all in different occupational groups (figure 21).

Figure 21. Active Workers Who Died by Gender, Age, and Occupation*

Occupational Group	Age Group - Men		
	40-49	50-59	60+
Scientific			1
Professional	1		
Tech Support/ Supv (E)	1		
Tech Support/ Supv (NE)		1	
Miscellaneous	1		
Total	3	1	1

*Blank space is equal to zero.

OSHA-Recordable Events

The Occupational Safety and Health Administration (OSHA) requires employers to maintain a record of occupational injuries and illnesses occurring among employees and to make that information available to OSHA on request. Employers maintain the information from these OSHA-recordable events in the OSHA 200 Log. OSHA-recordable events differ from health events captured through return-to-work clearances in at least two important respects: 1) they do not necessarily result in days lost from work, and 2) they are usually accompanied by a specific determination that they are work-related.

The percentage of men with an OSHA event was four times greater (4%) than for women (1%) in 1995. The occurrence of OSHA-recordable injuries did not appear to be related to age except for the 60+ group (figure 22). Workers in the oldest age group had a lower occurrence of OSHA-recordable events than the younger age groups. The average number of workdays lost or with restricted activity was similar for women (10.5 days) and men (9.6 days) (figure 24).

With the exception of men and women in the technical support/supervisory (NE) and technical groups and men in the bargaining units group, no more than 2% of the workers in any occupational group had an OSHA event. For men and women combined, the bargaining units (10.8%), technical (6.9%), and technical support/supervisory (NE) (5.1%) groups had the highest percentages of workers with an OSHA event (figures 23). Men in the bargaining units group (12.7%) had the highest percentage of workers with an OSHA-recordable event among all occupational groups.

The average number of days lost or restricted was quite low for most occupational groups (figure 25). Technical support/supervisory (NE) workers had the highest average number of workdays lost or with restricted activity (17.7 days). The administrative (NE) (12.5 days) and bargaining units groups (9.6 days) also had a high average number of workdays lost or with restricted activity. Among the administrative (NE) group, this number represents two OSHA events: One worker had 11 days lost and the other 14 days lost (figure 25). Appendices L-N contain more detailed data about the number of OSHA events and days of work lost or with restricted activity for men and women in different age and occupational groups.

Figure 22. Workers with at Least One OSHA Event by Gender and Age*

*Numbers in parentheses represent the number of workers with at least one event.

Figure 23. Workers with at Least One OSHA Event by Gender and Occupation*

*Numbers in parentheses represent the number of workers with at least one event.

Figure 24. Lost and Restricted Workdays by Gender and Age

	Age Group	Total Number of Days Lost/Restricted		Total Number of OSHA Events		Average Number of Days Lost/Restricted
Men	16-29	40	<div>÷</div>	8	<div>=</div>	5.0
	30-39	415		34		12.2
	40-49	309		35		8.8
	50-59	235		23		10.2
	60+	2		4		0.5
	Total	1,001		104		9.6

	Age Group	Total Number of Days Lost/Restricted		Total Number of OSHA Events		Average Number of Days Lost/Restricted
Women	16-29	14	<div>÷</div>	2	<div>=</div>	7.0
	30-39	52		2		26.0
	40-49	11		1		11.0
	50-59	7		3		2.3
	60+	0		0		0.0
	Total	84		8		10.5

Figure 25. Lost and Restricted Workdays by Gender and Occupation

	Occupation	Total Number of Days Lost/Restricted	Total Number of OSHA Events	Average Number of Days Lost/Restricted
Men	Management	0	0	0.0
	Scientific	0	3	0.0
	Professional	1	2	0.5
	Administrative (E)	0	0	0.0
	Tech Support/ Supv (E)	0	4	0.0
	Administrative (NE)	0	0	0.0
	Tech Support/ Supv (NE)	318	17	18.7
	Clerical and Support Wage	0	0	0.0
	Technical	49	7	7.0
	Bargaining Units	630	70	9.0
	Miscellaneous	3	1	3.0
	Total	1,001	104	9.6

	Occupation	Total Number of Days Lost/Restricted	Total Number of OSHA Events	Average Number of Days Lost/Restricted
Women	Management	0	0	0.0
	Scientific	0	1	0.0
	Professional	0	0	0.0
	Administrative (E)	0	0	0.0
	Tech Support/ Supv (E)	0	0	0.0
	Administrative (NE)	25	2	12.5
	Tech Support/ Supv (NE)	0	1	0.0
	Clerical and Support Wage	0	1	0.0
	Technical	0	1	0.0
	Bargaining Units	59	2	29.5
	Miscellaneous	0	0	0.0
	Total	84	8	10.5

Diagnostic and Accident Categories for OSHA-Recordable Events

Over 80% of the health conditions reported were for injury and poisoning. Sprains and strains were the most common type of OSHA-recordable injury (41%) among men and women. This type of injury accounted for four of the nine injury diagnoses reported among women. Open wounds were also reported relatively frequently. Twenty-eight percent of the OSHA injuries reported by men were open wounds (figures 26, 29, 30, and 32). Sixteen (55%) of the 29 open wounds were on the fingers.

Seven OSHA events were not the result of a specific accident. Four of these events had diagnoses related to the muscles and skeleton, with two diagnoses of back problems and one each for arthritis and rheumatism.

Figure 26. Health Conditions by Gender and Diagnostic Category*

Diagnostic Category	Total Number of Health Conditions Reported	
	Men	Women
Digestive	1	
Endocrine/Metabolic	2	
Heart/Circulatory	1	
Muscles and Skeleton	12	1
Nervous System		1
Skin	1	
Unspecified Symptoms	5	
Injury and Poisoning	105	9
• Fractures - Upper Limb	2	1
• Back Sprains and Strains	26	3
• Other Sprains and Strains	17	1
• Internal Injuries - Thorax, Abdomen, Pelvis	1	
• Open Wounds - Head, Neck, Trunk	6	
• Open Wounds - Upper Limb	21	1
• Open Wounds - Lower Limb	2	
• Superficial Injuries	5	1
• Bruises	9	2
• Foreign Bodies Entering Orifice	3	
• Injuries to Nerves and Spinal Cord	1	
• Unspecified Injuries	9	
• Adverse Reactions to Non-medical Substances	2	
• Adverse Reactions to External Causes	1	

*Blank space is equal to zero.

The type of accident was not reported for 6 of the 105 OSHA events that resulted from an accident. Among the 99 OSHA-recordable events that included a description of the accident, the types of accidents reported most were "other" accidents (74%) and falls (16%) (figure 27 and appendix U). Of the 73 other accidents, 47% involved overexertion and strenuous movements, and 29% involved cutting or piercing instruments or objects (figure 28). Except for falls, the type of accident did not appear systematically related to age (figure 31) or occupational category (figure 33). Falls were more common among women in the 40-49 and 50-59 age groups and among men less than 50 years old. They were a significant contributor of lost and restricted workdays (figure 27). For both men and women, workers in the technical support/supervisory (NE) and bargaining units groups reported falls more often than other occupational groups. Among the 16 falls, 11 resulted from tripping or slipping.

Figure 27. Types of Accidents and the Number of Lost or Restricted Workdays by Gender*

Accident Category	Men			Women		
	Number of Accidents	Number of Days Restricted	Number of Days Lost	Number of Accidents	Number of Days Restricted	Number of Days Lost
Motor Vehicle Traffic	1	10	6			
Motor Vehicle Nontraffic	1		1			
Poisoning - Nonmedicinal	2	1	1			
Falls	13	104	117	3	3	15
Natural/Environmental Factors	3					
Submersion/Suffocation/Foreign Bodies	3		1			
Other Accidents	69	229	265	4	10	56

*Blank space is equal to zero.

Figure 28. Types and Number of Accidents that Occurred Within the Category of Other Accidents by Gender*

Other Accidents	Total Number of Accidents Reported	
	Men	Women
Caught In or Between Objects		1
Cutting/Piercing Instrument/Object	20	1
Explosion of a Pressure Vessel	1	
Explosive Material	1	
Machinery Accident	1	
Overexertion and Strenuous Movements	32	2
Struck by an Object	14	

*Blank space is equal to zero.

Figure 29. Injuries Associated with Each Type of Accident by Gender*

Type of Injury	Type of Accidents — Men							Type of Accidents — Women	
	Motor Vehicle Traffic	Motor Vehicle Nontraffic	Poisoning - Non-medicinal	Falls	Natural/ Environmental Factors	Submersion/ Suffocation/ Foreign Bodies	Other Accidents	Falls	Other Accidents
Fractures - Upper Limb				1			1		1
Back Sprains and Strains				2			21	1	2
Other Sprains and Strains		1		5			10	1	
Internal Injuries - Thorax, Abdomen, Pelvis							1		
Open Wounds - Head, Neck, Trunk				3			3		
Open Wounds - Upper Limb				1			20		1
Open Wounds - Lower Limb							1		
Superficial Injuries				1	2		1	1	
Bruises							8	2	
Foreign Bodies Entering Orifice						3			
Injuries to Nerves and Spinal Cord							1		
Unspecified Injuries	1			2			4		
Adverse Reactions to Nonmedical Substances			2						
Adverse Reactions to External Causes					1				

*Blank space is equal to zero.

Figure 30. Three Diagnostic Categories Reported Most Often by Gender and Age

		16-29	30-39	40-49	50-59	60+
Men	Most Common Diagnostic Category	Sprains and Strains	Sprains and Strains	Sprains and Strains	Open Wounds	Open Wounds
	Second Most Common Diagnostic Category	Muscles and Skeleton; Fractures-Upper Limb	Open Wounds; Bruises	Open Wounds	Sprains and Strains	Sprains and Strains
	Third Most Common Diagnostic Category	Open Wounds (1)	Unspecified Injuries (1)	Muscles and Skeleton; Superficial Injuries	(2)	None
Women	Most Common Diagnostic Category	Sprains and Strains	Nervous System	Muscles and Skeleton	Bruises	None
	Second Most Common Diagnostic Category	Open Wounds (1)	Sprains and Strains (1)	Sprains and Strains (1)	Fractures-Upper Limb; Sprains and Strains	None
	Third Most Common Diagnostic Category	None	None	None	Superficial Injuries (1)	None

(1) This diagnostic category was reported the same number of times as the one above it.

(2) More than two diagnostic categories tied.

Figure 31. Three Accident Categories Reported Most Often by Gender and Age

		16-29	30-39	40-49	50-59	60+
Men	Most Common Accident Category	Other Accidents	Other Accidents	Other Accidents	Other Accidents	Other Accidents
	Second Most Common Accident Category	Falls	Falls	Falls	None	None
	Third Most Common Accident Category	None	Submersion/ Suffocation/Foreign Bodies	Natural/ Environmental Factors	None	None
Women	Most Common Accident Category	Other Accidents	Other Accidents	Falls	Falls	None
	Second Most Common Accident Category	None	None	None	Other Accidents	None
	Third Most Common Accident Category	None	None	None	None	None

Figure 32. Three Diagnostic Categories Reported Most Often by Gender and Occupation

		Management	Scientific	Professional	Administrative (E)	Tech Support/ Supv (E)	Administrative (NE)
Men	Most Common Diagnostic Category	None	Open Wounds	Sprains and Strains	None	Open Wounds	None
	Second Most Common Diagnostic Category	None	Fractures	Open Wounds	None	None	None
	Third Most Common Diagnostic Category	None	None	None	None	None	None
Women	Most Common Diagnostic Category	None	Fractures - Upper Limb	None	None	None	Sprains and Strains
	Second Most Common Diagnostic Category	None	None	None	None	None	Muscles and Skeleton
	Third Most Common Diagnostic Category	None	None	None	None	None	None
		Tech Support/ Supv (NE)	Clerical and Support Wage	Technical	Bargaining Units	Miscellaneous	
Men	Most Common Diagnostic Category	Sprains and Strains	None	(2)	Sprains and Strains	Sprains and Strains	
	Second Most Common Diagnostic Category	Open Wounds	None	None	Open Wounds	None	
	Third Most Common Diagnostic Category	Muscles and Skeleton; Unspecified Symptoms	None	None	Muscles and Skeleton	None	
Women	Most Common Diagnostic Category	Sprains and Strains	Nervous System	Open Wounds	Sprains and Strains	None	
	Second Most Common Diagnostic Category	Bruises (1)	None	None	Superficial Injuries (1)	None	
	Third Most Common Diagnostic Category	None	None	None	Bruises (1)	None	

(1) This diagnostic category was reported the same number of times as the one above it.

(2) More than two diagnostic categories tied.

Figure 33. Three Accident Categories Reported Most Often by Gender and Occupation

		Management	Scientific	Professional	Administrative (E)	Tech Support/ Supv (E)	Administrative (NE)
Men	Most Common Accident Category	None	Other Accidents	Other Accidents	None	Other Accidents	None
	Second Most Common Accident Category	None	Falls	None	None	None	None
	Third Most Common Accident Category	None	None	None	None	None	None
Women	Most Common Accident Category	None	Other Accidents	None	None	None	Falls
	Second Most Common Accident Category	None	None	None	None	None	Other Accidents (1)
	Third Most Common Accident Category	None	None	None	None	None	None

		Tech Support/ Supv (NE)	Clerical and Support Wage	Technical	Bargaining Units	Miscellaneous
Men	Most Common Accident Category	Other Accidents	None	Other Accidents	Other Accidents	Other Accidents
	Second Most Common Accident Category	Falls	None	Motor Vehicle Traffic; Poisoning - Nonmedicinal	Falls	None
	Third Most Common Accident Category	Submersion/ Suffocation/Foreign Bodies	None	Submersion/ Suffocation/Foreign Bodies (1)	Natural/ Environmental Factors	None
Women	Most Common Accident Category	Falls	None	Other Accidents	Falls	None
	Second Most Common Accident Category	None	None	None	Other Accidents (1)	None
	Third Most Common Accident Category	None	None	None	None	None

(1) This accident category was reported the same number of times as the one above it.

Rates of OSHA-Recordable Events

Overall, men in the bargaining units, technical, and miscellaneous groups had the highest rates for all occupational health conditions combined. Among women, bargaining units and technical workers had the highest rates (figure 34). Most of the OSHA health conditions involved occupational injuries. When the category of injury and poisoning was considered separately, the bargaining units group had the highest rate for men and the technical group for women (figure 35). Occupational injuries were responsible for 442 days of restricted activity and 643 days lost from work. For both men and women, the bargaining units had the most lost and restricted workdays (appendix N). This occupational group accounted for 17% of the work force but reported 64% of the OSHA-recordable events. They were responsible for 55% of the restricted workdays and 70% of the lost workdays.

Bargaining units workers were at a 8.3 times higher risk than other workers for injury and poisoning (appendix W). Their risk of sprains and strains was at least 12.5 times higher than other workers. Thirty-five of the 47 sprains and strains reported in the work force occurred among bargaining unit workers (appendix S). They were also at almost five times greater risk of open wounds to the arm and hand and over 10 times greater risk of bruises. Fifty-five percent of the open wounds to the arm and hand and 73% of the bruises were recorded in this occupational group. In comparison with other occupational groups, the bargaining units workers are at greater apparent risk for occupational injuries. The magnitude of this risk could be exaggerated if there is substantial underreporting of occupational injuries among other workers, but injuries among the bargaining unit workers are worthy of more evaluation. Additional analysis may identify subgroups within the bargaining units workers who are at particular risk, or may reveal opportunities for injury reduction efforts that could contribute to a reduction in injury rates, lower health care costs, and improved productivity among these workers.

Figure 34. Rates per 1,000 for all Diagnostic Categories Combined by Gender, Age, and Occupation

All Diagnostic Categories		Occupational Group	Age	Rate per 1,000	
				Men	Women
Management, Administrative and Clerical		<40	0	10
			40+	0	6
	Scientific		<40	12	0
			40+	5	34
	Professional		<40	0	0
			40+	6	0
	Technical		<40	42	45
			40+	47	95
	Bargaining Units		<40	171	18
			40+	158	37
	Miscellaneous		<40	0	0
			40+	143	0

Figure 35. Rates per 1,000 for Injury and Poisoning by Gender, Age, and Occupation

Diagnostic Category	Occupational Group	Age	Rate per 1,000	
			Men	Women
Injury and Poisoning	Management, Administrative and Clerical	<40	0	5
		40+	0	3
	Scientific	<40	12	0
		40+	5	34
	Professional	<40	0	0
		40+	6	0
	Technical	<40	36	45
		40+	33	95
	Bargaining Units	<40	148	18
		40+	132	37
	Miscellaneous	<40	0	0
		40+	143	0

Glossary

Adjustment: A mathematical procedure for rates in which the effects of differences of a characteristic (such as age or gender) between groups have been removed. The purpose of adjustment is to allow comparisons between two or more groups with the effect of the differences for the characteristic removed.

Age-Adjusted Rate: A rate that has been mathematically adjusted to account for the effects of differences in the age composition between groups. This allows one rate per group to be compared.

Age-Specific Rate: A rate that is calculated for a group that is a specific age (e.g., 16 to 29 years old). Only people in the specific age group are included in the calculation of the rate. The purpose of calculating age-specific rates is to identify differences in the rate that occur as the age changes. Any differences that are related to age can be seen by comparing age-specific rates for the different age groups.

Confidence Interval: A mathematical procedure used to determine in what range the true value of an event is likely to be. The width of the confidence interval (i.e., how wide the range is) is affected by the size of the group being studied and how often the event whose true value is sought occurs. Generally, as the size of the group or the frequency of the event increases, the width of the confidence interval decreases. The level of confidence, for example a 95% confidence level, indicates the percentage (e.g., 95%) of time that the true value is expected to fall within the confidence interval if the mathematical procedure is repeated 100 times.

Demographics: Characteristics of human populations related to their size, density, distribution, and health.

Diagnosis (diagnoses): Identification of a disease or health condition from its signs and symptoms.

Diagnosis Rate: The number of occurrences of a given disease or health condition observed among DOE workers during a given time period per 1,000 DOE workers at risk of getting that disease during the time period. It is calculated as follows (using 1995 as the time period):

$$\text{Diagnosis rate for a disease during 1995 (per 1,000 DOE workers)} = \frac{\text{Number of occurrences of the disease reported during 1995}}{\text{Number of DOE workers at risk for the disease during 1995}} \times 1,000$$

Diagnostic Category: A particular type of disease, a group of related health conditions, or diseases that all affect the same organ system. Cancer is an example of a diagnostic category that contains a particular type of disease, and pregnancy/childbirth is an example of one that contains a group of related health conditions. Lung/respiratory is an example of a diagnostic category that contains diseases that all affect the same organ system.

Epidemiologic Surveillance: The ongoing evaluation of the health of a human population which is based on the collection and interpretation of demographic and health information for that population.

Epidemiology: The study of the occurrence and distribution of diseases and health conditions in human populations.

Health Condition: A specific disease or medical condition. Health conditions are grouped together to form diagnostic categories. Tuberculosis is a specific disease that is part of the diagnostic category of infections/parasites. A fractured arm is a specific health condition included in the diagnostic category of injury and poisoning.

Health Event: An absence from work that lasted at least five consecutive workdays.

ICD-9-CM Code: An abbreviation for the *International Classification of Diseases, Ninth Revision, Clinical Modification*. It is internationally accepted as a standardized system for the classification of disease and health data collected from medical records and is useful to describe the disease and health characteristics of a population.

OSHA: An acronym for the Occupational Safety and Health Administration.

OSHA Event: An abbreviation used throughout this report for an OSHA-recordable event.

OSHA-Recordable Event: An accident that occurs on the job and involves fatalities (regardless of time between injury and death), time lost from work, transfer of employment, medical treatment other than first aid, loss of consciousness, or restriction of work or motion. Also included is any diagnosed occupational health event reported to the employer that is neither fatal nor results in workdays lost. By law, these events are recordable in the OSHA 200 Log.

Person-Year: A unit of measurement combining the number of people being studied with the time that each was observed equivalent to one person followed for one year. For example, 5 persons followed for one year contribute five person-years, as do 10 people each followed for half a year. In the epidemiologic surveillance reports, rates are often expressed as the number of events per 1,000 person-years.

Relative Risk: The rate of occurrence of a disease or health condition in one group compared to the rate of occurrence of that same disease or health condition in another group.

Explanation of Diagnostic Categories

Throughout this report, health conditions have been grouped into a number of diagnostic categories which come from the *International Classification of Diseases* (ICD-9-CM). For the text of this report the categories are abbreviated to make the report easier to read. In the appendixes a different set of abbreviations was used for the categories. These names are the same as the ones used in previous annual reports. The table that begins on the next page lists the categories in numeric order according to ICD-9-CM and gives examples of common diseases included in each category. The last column of the table below links the category names in the reports and the appendixes to the table that begins on the next page.

Diagnostic Categories Used in This Report	Diagnostic Categories Used in the Appendix and Previous Annual Reports	ICD-9-CM Codes
Benign Growths	Benign and Other Neoplasms	210-229,235-239
Blood	Blood and Blood Forming Organs	280-289
Cancer	Malignant Neoplasms	140-208,230-234
Digestive	Digestive System	520-579
Endocrine/Metabolic	Endocrine and Metabolic Diseases	240-279
Existing Birth Condition	Congenital Anomalies	740-759
Genitourinary	Genitourinary System	580-629
Heart/Circulatory	Circulatory System	390-459
Infections/Parasites	Infectious and Parasitic Diseases	001-139
Injury and Poisoning	Injury and Poisoning	800-999
Lung/Respiratory	Respiratory System	460-519
Mental	Mental Disorders	290-319
Muscles and Skeleton	Musculoskeletal System	710-739
Nervous System	Nervous System and Sense Organs	320-389
Pregnancy/Childbirth	Pregnancy and Childbirth	630-676
Skin	Skin and Subcutaneous Tissue	680-709
Unspecified Symptoms	Symptoms, Signs and Ill-Defined Conditions	780-799

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
All conditions	001-V82	All reported health events
Infectious and parasitic diseases	001-139	Diseases caused by bacteria, viruses, and parasites
• Intestinal infections	001-009	Infections of the bowel or gut
• Tuberculosis	010-018	TB in the lungs and other organs
• Zoonotic bacterial diseases	020-027	Bacterial diseases that animals transmit to humans
• Other bacterial diseases	030-041	Whooping cough, diphtheria, strep throat, and gangrene
• Human Immunodeficiency Virus (HIV) infection	042	AIDS
• Poliomyelitis and other nonarthropod diseases of central nervous system	045-049	Viral meningitis (swelling of the layers covering the brain and spinal cord); viral encephalitis (swelling of the brain); and polio
• Viral diseases accompanied by exanthem	050-057	Diseases accompanied by rashes or blisters like chickenpox, measles, shingles, and herpes
• Arthropod-borne viral diseases	060-066	Encephalitis (swelling of the brain) caused by bites from virus-carrying ticks or mosquitoes
• Other diseases caused by viruses and chlamydiae	070-079	Viral hepatitis, mumps, rabies, and mononucleosis
• Rickettsioses and other arthropod-borne diseases	080-088	Rocky Mountain spotted fever, malaria, and lyme disease
• Other spirochetal diseases	100-104	Trench mouth and Weil's disease (jaundice caused by coil-shaped bacteria)
• Mycoses	110-118	Athlete's foot; fungal infections of fingernails and toenails; and thrush
• Helminthiasis	120-129	Pinworms, tapeworms, roundworms, whipworms
• Other infectious and parasitic diseases	130-136	Lice, chiggers, scabies, and mites
• Late effects of infectious or parasitic diseases	137-139	Side effects of TB, chickenpox, or polio even though the disease is no longer active
Malignant neoplasms	140-208, 230-234	All cancers, regardless of the part of the body affected
• Lip, oral cavity, and pharynx	140-149	Lip, mouth, throat, and tongue
• Digestive organs and peritoneum	150-159	Cancers of the stomach, esophagus (tube that transports food to the stomach), intestines, colon, rectum, anus, liver, pancreas, and gallbladder
• Respiratory system and intrathoracic organs	160-165	Sinuses, throat, voice box, lungs, and heart
• Bone, connective tissue, and skin	170-173	Bone, muscle, ligament, tendon, blood vessels, fat, and skin
• Genitourinary organs	179-189	Cervix, uterus, prostate, kidney, and bladder
• Other and unspecified sites	190-199	Eye, brain, and thyroid
• Lymphatic and hematopoietic tissue	200-208	Leukemia, lymphoma, Hodgkin's disease, multiple myeloma, lymphosarcoma, and reticulum cell sarcoma
• Carcinoma in situ	230-234	A cancer that is confined to the site of origin (has not spread to neighboring tissue)
Benign neoplasms and neoplasms of uncertain behavior and unspecified nature	210-229, 235-239	Tumors that are not cancerous or do not exhibit cancerous behavior, regardless of the part of the body affected
Endocrine, nutritional, and metabolic diseases and disorders of the immune system	240-279	Diseases affecting the hormone secreting glands and organs. Overactive thyroid; underactive thyroid; vitamin deficiency; diabetes; gout; and problems affecting the antibody producing system
Disorders of the blood and blood forming organs	280-289	Anemia and hemophilia (excludes leukemia)
Mental disorders	290-319	Psychiatric diagnoses - Nonpsychotic disorders: depression; anxiety fear, and stress disorders; alcoholism; drug dependence; and eating disorders, such as anorexia; Psychotic disorders: dementia, schizophrenia, and manic depression
Diseases of the nervous system and sense organs	320-389	Huntington's chorea; Alzheimer's and Parkinson's disease; epilepsy; multiple sclerosis; migraine; diseases of the eye, such as cataract and glaucoma
• Inflammatory diseases of the central nervous system	320-326	Bacterial meningitis (swelling of the layers covering the brain and spine); bacterial encephalitis (swelling of the brain); and brain and spinal abscesses

(continued)

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
<ul style="list-style-type: none"> • Hereditary and degenerative diseases of the central nervous system • Other disorders of the central nervous system • Disorders of the peripheral nervous system • Disorders of the eye • Diseases of the ear and mastoid process 	330-337 340-349 350-359 360-379 380-389	Alzheimer's and Parkinson's disease, tremors, and Huntington's chorea Multiple sclerosis (MS), cerebral palsy, epilepsy, and migraine Nerve disorders of the face, carpal tunnel syndrome, muscular dystrophy Inflammation and ulcers of the eye and eyelid; detached retina; pink eye; problems with tear ducts; glaucoma; and cataracts Infections of the outer, middle, or inner ear; ringing of the ears; hearing loss
Diseases of the circulatory system	390-459	Rheumatic fever, heart murmurs, heart attacks, angina, hardening of the arteries, varicose veins, hemorrhoids, and phlebitis
<ul style="list-style-type: none"> • Acute rheumatic fever • Chronic rheumatic heart disease • Hypertensive disease • Ischemic heart disease • Diseases of pulmonary circulation • Other forms of heart disease • Cerebrovascular disease • Diseases of the arteries and capillaries • Diseases of the veins, lymphatics, and other 	390-392 393-398 401-405 410-414 415-417 420-429 430-438 440-448 451-459	High fever and joint pain with possible heart damage Long lasting swelling and damage to the heart which results from rheumatic fever High blood pressure Heart attack and angina Blood clots in the lung and pulmonary aneurysm (bulge that develops in the wall of the pulmonary artery, which is the artery that carries blood to the lungs) Swelling of the inner lining, middle lining, or sac enclosing the heart; heart failure; and irregular heartbeat Stroke, bleeding in the brain, and blockage or low blood flow in blood vessels of the brain Hardening of the arteries; aneurysm (bulge that develops in the walls of arteries); and blood clots Phlebitis (swelling of a vein) and thrombophlebitis (swelling of a vein which has a blood clot)
Diseases of the respiratory system	460-519	Colds, sinusitis, laryngitis, pneumonia, influenza, chronic bronchitis, asthma, and emphysema
<ul style="list-style-type: none"> • Acute respiratory infections • Other diseases of the upper respiratory tract • Pneumonia and influenza • Chronic obstructive pulmonary diseases and allied conditions • Pneumoconiosis and other lung diseases caused by external agents • Other diseases of respiratory system 	460-466 470-478 480-487 490-496 500-508 510-519	Colds, sore throat, sinus infections, swollen tonsils, and bronchitis Allergies, hay fever, sinus infections, bronchitis, and sore throat that continue for a long time "The flu" and pneumonia caused by a bacteria or virus Emphysema and asthma Black lung; miners' asthma; asbestosis; silicosis; berylliosis; and conditions caused by chemical fumes and vapors Pleurisy (swelling of the lining of the lungs), collapsed lung, and respiratory failure
Diseases of the digestive system	520-579	Diseases affecting the teeth and mouth, salivary glands, digestive tract, and the abdominal cavity. Examples include dental abscess, ulcers, appendicitis, hepatitis (excluding viral hepatitis), cirrhosis of the liver, gallstones, pancreatitis, abdominal hernia, and intestinal polyps
<ul style="list-style-type: none"> • Diseases of the oral cavity, salivary glands, and jaw • Diseases of the esophagus, stomach, and duodenum • Appendicitis • Hernia of the abdominal cavity • Noninfectious enteritis and colitis • Other diseases of the intestines and peritoneum • Other diseases of digestive system 	520-529 530-537 540-543 550-553 555-558 560-569 570-579	Tooth problems (too many, too few, abnormal shape or size, cavities, bleeding gums, toothaches), and infections and swelling of the mouth, jaw, and tongue Ulcers of the esophagus (tube that transports food to the stomach), stomach, and small intestine; indigestion; and uncontrollable vomiting Swelling of the appendix (rupture, surgery, or both may result) Ruptures of the groin and diaphragm (muscle which separates the chest area from the lower part of the trunk) Crohn's disease and swelling of the intestine and colon Irritable bowel syndrome, blockage of the intestine, constipation, and diarrhea Diseases of the liver, gallbladder, and pancreas; hepatitis; blood in stool; and bleeding in the stomach and intestine

(continued)

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
Diseases of the genitourinary system	580-629	Diseases affecting the kidneys, the prostate, and testes; benign breast diseases; infertility (male and female); diseases of the ovary; pelvic inflammatory disease; and menstrual disorders
• Nephritis, nephrotic syndrome, and nephrosis	580-589	Swelling of the kidney; swelling of the small blood vessels in the kidney; and kidney failure
• Other diseases of the urinary system	590-599	Swelling and infection of the kidney and bladder; kidney stones; and difficulty urinating
• Diseases of the male genital organs	600-608	Enlarged prostate; swelling of the scrotum and prostate; and abscess of the prostate
• Disorders of the breast	610-611	Benign tumors, cysts, and infections of the breast
• Inflammatory disease of the female pelvic organs	614-616	Swelling of the uterus, ovary, fallopian tubes, or cervix
• Other diseases of the female genital tract	617-629	Conditions associated with menopause and postmenopause; PMS; infertility; and cramps
Complications of pregnancy, childbirth, and the puerperium	630-676	Miscarriage; complications of pregnancy, such as hemorrhage; pregnancy-related high blood pressure; preeclampsia; and premature labor or other complications of labor
• Ectopic and molar pregnancy	630-633	Development of fetus outside the uterus and growth of cysts
• Other pregnancy with abortive outcome	634-639	Miscarriage and complications associated with miscarriage
• Complications mainly related to pregnancy	640-648	Abnormal bleeding and possible miscarriage; infections; high blood pressure caused by pregnancy; and premature labor
• Normal delivery, and other indications for care in pregnancy, labor, and delivery	650-659	Delivery requiring little or no assistance; multiple births; breech birth; and problems of the fetus or placenta which affect care of mother
• Complications occurring mainly in the course of labor and delivery	660-669	Long labor; unusually fast delivery; and abnormal bleeding after delivery
• Complications of the puerperium	670-676	Infections of the breast; blood clot in lung; and varicose veins
Diseases of the skin and subcutaneous tissue	680-709	Acne, cellulitis, sunburn, psoriasis, and seborrhea
• Infections of the skin and subcutaneous tissue	680-686	Abscesses, boils, hair-containing cysts, and pus-filled blisters
• Other inflammatory conditions of skin and subcutaneous tissue	690-698	Skin rashes caused by detergents, oils, greases, solvents, sun, food, drugs, or medicine
• Other diseases of the skin and subcutaneous tissue	700-709	Corns, calluses, heat rash, swollen hair follicles, acne, and ingrown fingernails and toenails
Diseases of the musculoskeletal system and connective tissue	710-739	Arthritis, systemic lupus erythematosus, ankylosing spondylitis, herniated intervertebral disc ("slipped disc"), lumbago, sciatica, rheumatism, tendonitis, and osteoporosis
• Arthropathies and related disorders	710-719	Arthritis; joint pain and stiffness; and other diseases of the connective tissue which supports and connects internal organs, forms bones and blood vessel walls, and attaches to bones
• Dorsopathies	720-724	Swelling of the spine; rheumatoid arthritis of the spine; lumbago; and sciatica
• Rheumatism, excluding the back	725-729	Swelling and degeneration of joints, muscles, tendons; tennis elbow; and bursitis
• Osteopathies, chondropathies, and acquired musculoskeletal deformities	730-739	Fracture caused by bone disease; osteoporosis; curvature of the spine; flat foot; hammer toe; and development of deformities of the nose, toes, feet, legs, arms, and hands
Congenital anomalies	740-759	Spina bifida; cleft palate; harelip; and various chromosomal anomalies, such as Klinefelter's syndrome
Certain conditions originating in the perinatal period	760-779	Maternal high blood pressure; maternal malnutrition; ectopic pregnancy; breech birth; fetal malnutrition or slow growth; injuries related to birth trauma; and perinatal jaundice
Symptoms, signs, and ill-defined conditions	780-799	Blackout, chills, dizziness, fatigue, pallor, abnormal weight loss, undiagnosed chest pain, and heartburn
• Symptoms	780-789	Hallucinations, fainting, convulsions, dizziness, fatigue, fever, sleep disturbance, rash, headache, sore throat, chest pain, nausea, vomiting, and heartburn
• Nonspecific abnormal findings	790-796	Abnormal x-ray, blood, stool, and urine test results

(continued)

Categories and Subcategories of Diagnoses	ICD-9-CM Codes	Diseases
<ul style="list-style-type: none"> • Ill-defined and unknown causes of morbidity and mortality 	797-799	Senility; asphyxia; respiratory arrest; nervousness; and unexplained death within 24 hours of onset of symptoms
Injury and poisoning	800-999	Dislocation of joints; sprains and strains of associated muscles; concussions; bruises; cuts; internal injuries from crushing, puncture, tearing or blunt impact; burns; blisters; poisoning; frostbite; heatstroke; and complications of medical or surgical care
<ul style="list-style-type: none"> • Fractures, all sites 	800-829	Cracks or breaks of any bone
<ul style="list-style-type: none"> • Dislocations 	830-839	Separation of a bone from its normal socket or joint
<ul style="list-style-type: none"> • Sprains and strains of joints and adjacent muscles 	840-848	Strains are injuries to muscle from overuse or stretching the muscle beyond its normal limit; sprains are injuries involving tearing or overextending the ligaments of a joint
<ul style="list-style-type: none"> • Intracranial injuries excluding those with skull fractures 	850-854	Concussions; internal bruises; and bleeding within the head without a fracture of the bones of the skull
<ul style="list-style-type: none"> • Internal injuries of the thorax, abdomen, and pelvis 	860-869	Bruising, crushing, tearing, or rupturing the chest, abdomen, and pelvis and the organs within these areas of the body
<ul style="list-style-type: none"> • Open wounds 	870-897	Animal bites; cuts; lacerations; punctures; and amputations, excluding the arteries and veins
<ul style="list-style-type: none"> • Other injuries and late effects of external causes 	900-999	Miscellaneous injuries, including injuries to the arteries and veins; problems that occur an extended period of time after the injury has taken place ("late effects"); superficial bruises and abrasions; burns; post-injury shock; poisoning; toxic side effects of chemicals; heatstroke; electrocution; and altitude sickness
Supplementary classifications related to personal or family history of disease	V10-V19	Covers situations in which the person is not ill or injured but has a personal or family history of problems, such as cancer, mental illness, allergies, or arthritis that may affect his or her risk of illness
Supplementary classifications related to health care for reproduction and child development	V20-V28	Problems related to pregnancy, postpartum care, contraception, outcome of delivery, and physical development of child
Contact with health services for reasons other than illness or injury	V50-V59	Care for workers who have been treated previously for an illness or injury that is no longer present but who receive care to complete treatment or prevent recurrence

Reader Response

To help us serve your information needs better, please take a moment to answer the following questions. Then fold this postage paid form into thirds along the dotted lines, **tape** (do not staple) it together, and return to us. Thank you for sharing your thoughts with us!

- 1) Overall, the information in this report was (circle one...)

Too detailed

About right

Not detailed enough

- 2) Are there additional topics you would like to see covered in future reports?

Yes

No

If yes, please list additional topics:

- 3) Please list suggestions for improving the Epidemiologic Surveillance reports:

- 4) Which of the following occupational categories best describes the type of work you do?

(check one...)

- ☐ Management/Administrative
☐ Technical
☐ Professional/Scientific
☐ Crafts/Trades
☐ Clerical

- 5) I am employed by (check one...)

- ☐ U.S. Department of Energy (DOE)
☐ DOE contractor or subcontractor
☐ Other Federal agency
☐ Military
☐ State or Local government
☐ Other

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BNL 1995 Appendices

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Appendix A. Work Force by Gender, Age, and Occupation

	Women						Men						Total
	Age Group					Total	Age Group					Total	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Management	0	4	13	6	0	23	0	6	28	40	19	93	116
Scientific	5	36	12	14	3	70	25	146	167	146	116	600	670
Professional	11	62	24	22	5	124	63	181	183	128	51	606	730
Administrati- ve (E)	9	43	57	57	11	177	4	21	32	33	10	100	277
Tech Support/Supv (E)	0	6	4	3	0	13	1	61	127	139	47	375	388
Administrati- ve (NE)	11	57	90	33	14	205	0	0	3	2	2	7	212
Tech Support/Supv (NE)	0	6	4	3	1	14	20	148	92	47	12	319	333
Clerical and Support Wage	34	34	25	9	1	103	5	3	0	0	1	9	112
Technical	4	6	4	1	1	16	23	53	11	5	8	100	116
Bargaining Units	24	32	27	20	7	110	39	171	134	137	32	513	623
Miscellaneous	57	9	17	8	5	96	35	2	6	1	0	44	140
Total	155	295	277	176	48	951	215	792	783	678	298	2766	3717

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Appendix B. Total Number of Workers Who Reported at Least One Health Event by Gender, Age, and Occupation*

	Women						Men						Total
	Age Group					Total	Age Group					Total	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Scientific	0	2	0	0	0	2	0	0	0	3	1	4	6
Professional	1	0	0	0	0	1	1	1	3	2	2	9	10
Administrative (E)	0	2	0	2	1	5	0	1	2	2	0	5	10
Tech Support/Supv (E)	0	0	1	0	0	1	1	3	5	9	4	22	23
Administrative (NE)	1	1	6	1	0	9	0	0	0	0	1	1	10
Tech Support/Supv (NE)	0	2	1	1	0	4	1	8	12	8	0	29	33
Clerical and Support Wage	2	4	3	2	0	11	0	0	0	0	0	0	11
Technical	0	1	0	0	0	1	3	6	3	2	2	16	17
Bargaining Units	3	8	7	3	1	22	4	36	31	28	4	103	125
Total	7	20	18	9	2	56	10	55	56	54	14	189	245

*Only those occupational groups with at least one occurrence appear in this table.

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Appendix C. Total Number of Health Events by Gender, Age, and Occupation*

Women	Men												Total
	Age Group					Total	Age Group					Total	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Scientific	0	2	0	0	0	2	0	0	0	4	1	5	7
Professional	1	0	0	0	0	1	1	1	3	2	3	10	11
Administrative (E)	0	2	0	2	1	5	0	1	2	3	0	6	11
Tech Support/Supv (E)	0	0	1	0	0	1	2	3	5	11	5	26	27
Administrative (NE)	1	1	6	1	0	9	0	0	0	0	1	1	10
Tech Support/Supv (NE)	0	2	1	1	0	4	1	9	17	10	0	37	41
Clerical and Support Wage	2	6	3	2	0	13	0	0	0	0	0	0	13
Technical	0	1	0	0	0	1	3	7	3	2	2	17	18
Bargaining Units	4	12	8	5	1	30	5	45	41	37	5	133	163
Total	8	26	19	11	2	66	12	66	71	69	17	235	301

*Only those occupational groups with at least one occurrence appear in this table.

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Appendix D. Distribution of the Number of Calendar Days Absent/Health Event by Gender and Age

	Women							Men							
	Age Group						Age Group								
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +				
# of Calendar Days															
< 15	5	16	14	6	0	41	8	43	50	29	9	139	180		
15 - 28	1	2	1	1	2	7	3	12	9	25	4	53	60		
29 - 42	0	2	0	2	0	4	1	5	4	7	1	18	22		
43 - 56	1	2	4	0	0	7	0	1	3	2	0	6	13		
57 - 91	1	2	0	1	0	4	0	2	3	4	1	10	14		
92 - 182	0	2	0	1	0	3	0	2	1	2	2	7	10		
183 +	0	0	0	0	0	0	0	1	1	0	0	2	2		
Total	8	26	19	11	2	66	12	66	71	69	17	235	301		

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Appendix E. Distribution of the Number of Calendar Days Absent/Health Event by Gender and Occupation*

	Women										Men									
	Occupational Group									Total		Occupational Group								
	Sci-ent-ific	Pro-fes-sio-nal	Adm-ini-str-ati-ve (E)	Tech-Sup-por-t/S-upv (E)	Adm-ini-str-ati-ve (NE)	Tech-Sup-por-t/S-upv (NE)	Cle-ric-al and Sup-port Wage	Tec-hni-cal	Bar-gain-ing Uni-ts			Sci-ent-ific	Pro-fes-sio-nal	Adm-ini-str-ati-ve (E)	Tech-Sup-por-t/S-upv (E)	Adm-ini-str-ati-ve (NE)	Tech-Sup-por-t/S-upv (NE)	Tec-hni-cal	Bar-gain-ing Uni-ts	Total
# of Calendar Days																				
< 15	0	1	2	1	5	1	6	1	24	41	1	2	3	12	0	21	15	85	139	
15 - 28	0	0	2	0	2	0	2	0	1	7	3	5	2	8	0	12	2	21	53	
29 - 42	0	0	1	0	0	2	0	0	1	4	1	3	1	2	0	1	0	10	18	
43 - 56	1	0	0	0	2	1	2	0	1	7	0	0	0	1	0	2	0	3	6	
57 - 91	0	0	0	0	0	0	1	0	3	4	0	0	0	1	0	1	0	8	10	
92 - 182	1	0	0	0	0	0	2	0	0	3	0	0	0	2	1	0	0	4	7	
183 +	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
Total	2	1	5	1	9	4	13	1	30	66	5	10	6	26	1	37	17	133	235	

*Only those gender/occupational combinations with at least one health event appear in this table.

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men							
		Age Group					Tot- al	Age Group					Tot- al		
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +			
Diagn- ostic Categ- ory	ICD-9- CM Code														
INFECTION & PARASITIC DISEASES (DIS)	001- 139	0	3	0	0	0	3	0	3	1	3	0	7	10	
-Inte- stinal Infec- tious Dis	001- 009	0	1	0	0	0	1	0	0	0	0	0	0	1	
-Other Bacte- rial Dis	030- 041	0	1	0	0	0	1	0	0	0	0	0	0	1	
-Viral Dis with Exant- hem	050- 057	0	0	0	0	0	0	0	1	0	2	0	3	3	
-Other Viral Dis & Chlam- ydiae	070- 079	0	0	0	0	0	0	0	2	1	1	0	4	4	
-Other Infec- tions & Paras- itic Dis	130- 136	0	1	0	0	0	1	0	0	0	0	0	0	1	

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men							
		Age Group					Tot- al	Age Group					Tot- al		Tot- al
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +			
Diagn- ostic Categ- ory	ICD-9- CM Code														
MALIG- NANT NEOPL- ASMS	140- 208, 230- 234	0	0	0	0	0	0	0	0	1	1	1	3	3	
-Dige- stive & Perit- oneal	150- 159	0	0	0	0	0	0	0	0	0	0	1	1	1	
-Geni- tourin- ary	179- 189	0	0	0	0	0	0	0	0	0	1	0	1	1	
-Other & Unspe- cified Sites	190, 193- 199	0	0	0	0	0	0	0	0	1	0	0	1	1	
BENIGN & UNCER- TAIN NEOPL- ASMS	210- 229, 235- 239	0	0	2	0	0	2	1	0	1	2	0	4	6	
ENDOC- RINE/- METAB- OLIC/- IMMUN- ITY	240- 279	0	0	1	1	0	2	0	0	1	1	1	3	5	
-Other Endoc- rine Gland Dis	250- 259	0	0	0	1	0	1	0	0	0	0	1	1	2	

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men							
		Age Group					Tot- al	Age Group					Tot- al		
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +			
Diagn- ostic Categ- ory	ICD-9- CM Code														
-Other Metab- olic & Immun- ity Disor- ders	270- 279														
		0	0	1	0	0	1	0	0	1	1	0	2	3	
BLOOD & BLOOD- FORMI- NG ORGANS	280- 289	0	0	1	0	0	1	0	0	3	0	0	3	4	
MENTAL DISOR- DERS	290- 319	1	2	0	0	0	3	0	0	0	1	0	1	4	
-Non- Psych- otic Disor- ders	300- 302, 306- 316	1	2	0	0	0	3	0	0	0	1	0	1	4	
NERVO- US SYSTEM (NS) & SENSE ORGANS	320- 389	0	1	1	1	1	4	0	2	4	3	1	10	14	
-Here- ditar- y/Deg- enera- tive Centr- al NS Dis	330- 337	0	0	0	0	0	0	0	0	1	0	0	1	1	

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men							
		Age Group						Age Group					Tot- al		Tot- al
								16 - 29	30 - 39	40 - 49	50 - 59	60 +			
Diagn- ostic Categ- ory	ICD-9- CM Code ory														
-Diso- rders of Perip- heral NS	350- 359	0	0	0	1	0	1	0	0	0	3	0	3	4	
-Diso- rders of Eye	360- 379	0	1	1	0	0	2	0	0	2	0	1	3	5	
-Dis of Ear & Masto- id	380- 389	0	0	0	0	1	1	0	2	1	0	0	3	4	
CIRCU- LATORY SYSTEM	390- 459	0	0	0	2	0	2	0	1	8	14	5	28	30	
-Hype- rtens- ive Dis	401- 405	0	0	0	0	0	0	0	0	1	4	0	5	5	
-Isch- emic Heart Dis	410- 414	0	0	0	1	0	1	0	0	1	5	1	7	8	
-Other Heart Dis	420- 429	0	0	0	1	0	1	0	0	4	1	2	7	8	
-Cere- brova- scular Dis	430- 438	0	0	0	0	0	0	0	0	0	2	2	4	4	

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men						Tot- al
		Age Group					Tot- al	Age Group					Tot- al	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagn- ostic Categ- ory	ICD-9- CM Code													
-Dis of Veins, Lymph- atics, Other	451- 459	0	0	0	0	0	0	0	1	2	2	0	5	5
RESPI- RATORY SYSTEM	460- 519	2	13	4	4	0	23	10	21	31	28	8	98	121
-Acute Respi- ratory Infec- tions	460- 466	1	7	0	3	0	11	6	11	13	19	5	54	65
-Other Dis Upper Respi- ratory Tract	470- 478	0	1	0	0	0	1	0	2	7	0	1	10	11
-Pneu- monia & Influ- enza	480- 487	0	2	0	1	0	3	2	1	5	7	1	16	19
-Chro- nic Obstr- uctive Dis	490- 496	1	3	4	0	0	8	2	6	6	2	1	17	25
-Other Respi- ratory Dis	510- 519	0	0	0	0	0	0	0	1	0	0	0	1	1

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men						
		Age Group					Tot- al	Age Group					Tot- al	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagn- ostic Categ- ory	ICD-9- CM Code Category													
DIGES- TIVE SYSTEM	520- 579	2	2	3	0	0	7	1	1	10	12	0	24	31
-Oral Cavit- Y, Saliva Gland- s, Jaw	520- 529	2	0	0	0	0	2	0	0	3	0	0	3	5
-Esop- hagus, Stoma- ch, Duode- num	530- 537	0	0	0	0	0	0	1	0	1	2	0	4	4
-Hern- ia	550- 553	0	0	1	0	0	1	0	0	3	5	0	8	9
-Ente- ritis, Colit- is	555- 558	0	0	1	0	0	1	0	0	3	2	0	5	6
-Other Intes- tinal Dis	560- 569	0	0	0	0	0	0	0	1	0	3	0	4	4
-Other Diges- tive Dis	570- 579	0	2	1	0	0	3	0	0	0	0	0	0	3
GENIT- OURIN- ARY SYSTEM	580- 629	0	3	2	5	0	10	0	0	1	6	1	8	18

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men								
		Age Group					Tot- al	Age Group					Tot- al			Tot- al
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +				
Diagn- ostic Categ- ory	ICD-9- CM Code															
-Neph- ritis, Neph- rosis	580- 589	0	0	0	0	0	0	0	0	0	4	0	4	4		
-Other Urina- ry Dis	590- 599	0	1	0	0	0	1	0	0	1	0	0	1	2		
-Male Genit- al Organ Dis	600- 608	0	0	0	0	0	0	0	0	0	2	1	3	3		
-Brea- st Disor- ders	610- 611	0	0	0	3	0	3	0	0	0	0	0	0	3		
-Pelv- ic Infla- mmato- ry Dis	614- 616	0	0	1	0	0	1	0	0	0	0	0	0	1		
-Other Female Disor- ders	617- 629	0	2	1	2	0	5	0	0	0	0	0	0	5		
PREGN- ANCY & CHILD- BIRTH	630- 677	1	4	1	0	0	6	0	0	0	0	0	0	6		
-Preg- nancy with Abort- ive Outco- me	634- 639	0	0	1	0	0	1	0	0	0	0	0	0	1		

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

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Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men						Tot- al
		Age Group					Tot- al	Age Group					Tot- al	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagn- ostic Categ- ory	ICD-9- CM Code													
-Preg- nancy Comp- lica- tions	640- 648	0	1	0	0	0	1	0	0	0	0	0	0	1
-Norm- al Deliv- ery	650- 659	1	2	0	0	0	3	0	0	0	0	0	0	3
-Deli- very Comp- lica- tions	670- 677	0	1	0	0	0	1	0	0	0	0	0	0	1
SKIN & SUBCU- TANEO- US TISSUE	680- 709	0	0	0	0	0	0	1	3	1	1	0	6	6
-Infe- ctions	680- 686	0	0	0	0	0	0	0	2	0	1	0	3	3
-Other Infla- mmato- ry Condi- tions	690- 698	0	0	0	0	0	0	0	0	1	0	0	1	1
-Other	700- 709	0	0	0	0	0	0	1	1	0	0	0	2	2
MUSCU- LOSKE- LETAL & CONNE- CTIVE TISSUE	710- 739	0	5	4	2	2	13	0	18	10	19	2	49	62
-Arth- ropat- hies	710- 719	0	1	0	0	0	1	0	4	2	4	0	10	11
-Dors- opath- ies	720- 724	0	3	1	1	2	7	0	11	6	8	0	25	32

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men						Tot- al
		Age Group					Tot- al	Age Group					Tot- al	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagn- ostic Categ- ory	ICD-9- CM Code Category													
-Rheu- matis- m, Exclu- ding Back	725- 729	0	0	3	1	0	4	0	2	2	7	2	13	17
-Other Dis & Acqui- red Deformi- ties	730- 739	0	1	0	0	0	1	0	1	0	0	0	1	2
SYMPT- OMS, SIGNS, & ILL- DEFIN- ED COND.	780- 799	2	0	0	2	0	4	2	2	4	6	1	15	19
-Symp- toms	780- 789	2	0	0	2	0	4	2	2	4	6	1	15	19
INJURY AND POISO- NING	800- 999	4	3	5	2	0	14	4	30	19	8	3	64	78
-Frac- ture - Neck, Trunk	805- 809	0	0	1	0	0	1	0	0	0	0	0	0	1
-Frac- ture - Upper Limb	810- 819	0	0	0	0	0	0	0	3	2	1	0	6	6

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men						Tot- al
		Age Group					Tot- al	Age Group					Tot- al	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagn- ostic Categ- ory	ICD-9- CM Code													
-Frac- ture - Lower Limb	820- 829	0	1	0	0	0	1	0	1	1	1	0	3	4
-Disl- ocati- on	830- 839	0	0	0	0	0	0	0	3	2	0	0	5	5
-Spra- ins & Strai- ns - Back	846- 847	2	1	1	0	0	4	0	4	6	0	0	10	14
-Spra- ins & Strai- ns - Other	840- 845, 848	0	0	2	0	0	2	2	11	3	2	1	19	21
-Intr- acran- ial Injury	850- 854	1	0	0	0	0	1	0	0	1	0	0	1	2
-Inte- rnal Injury Thora- x, Abdom- en, Pelvis	860- 869	0	0	0	0	0	0	0	1	0	0	0	1	1
-Open Wound Upper Limb	880- 887	0	0	0	0	0	0	0	2	0	1	0	3	3

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men						
		Age Group					Tot- al	Age Group					Tot- al	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagn- ostic Categ- ory	ICD-9- CM Code													
-Open Wound Lower Limb	890- 897	0	0	0	0	0	0	0	0	0	1	0	1	1
-Supe- rfici- al Injury	910- 919	0	1	0	1	0	2	0	1	0	0	0	1	3
-Cont- usion	920- 924	0	0	0	1	0	1	1	2	4	1	2	10	11
-Comp- licat- ions & Unspe- cified Injur- ies	958- 959	1	0	0	0	0	1	1	2	0	0	0	3	4
-Comp- licat- ions of Surgi- cal/M- edical Care	996- 999	0	0	1	0	0	1	0	0	0	1	0	1	2
HEALTH STATU- S/HEA- LTH SERVI- CE CONTA- CT	V01- V82	1	4	1	0	0	6	0	1	0	0	1	2	8

*Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix F. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women						Men						Tot- al
		Age Group					Tot- al	Age Group					Tot- al	
		16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagn- ostic Categ- ory	ICD-9- CM Code													
-Heal- th Servi- ces Repro- ducti- on/De- velop- ment	V20- V29	1	4	0	0	0	5	0	0	0	0	0	0	5
-Spec- ific Proce- dures- /Afte- rcare	V50- V59	0	0	0	0	0	0	0	0	0	0	1	1	1
-Exam- inati- on & Inves- tigat- ion	V70- V82	0	0	1	0	0	1	0	1	0	0	0	1	2
Total		13	40	25	19	3	100	19	82	95	105	24	325	425

*Only those diagnostic categories with at least one occurrence appear in this table.

BNL 1995

Appendix G. Total Number of Calendar Days Absent in Each Diagnostic Category by Gender and Age*

	Women						Men						
	Age Group					Tot- al	Age Group					Tot- al	
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category													
Infecti- ons/Parasites	0	21	0	0	0	21	0	30	51	28	0	109	130
Cancers	0	0	0	0	0	0	0	0	16	15	134	165	165
Benign Growths	0	0	94	0	0	94	26	0	7	60	0	93	187
Endocri- ne/Meta- bolic	0	0	7	42	0	49	0	0	14	24	58	96	145
Blood	0	0	54	0	0	54	0	0	51	0	0	51	105
Mental	6	49	0	0	0	55	0	0	0	6	0	6	61
Nervous System	0	11	7	98	21	137	0	14	50	65	9	138	275
Heart/C- irculat- ory	0	0	0	48	0	48	0	16	134	461	112	723	771
Lung/Re- spirato- ry	12	44	33	9	0	98	43	136	219	93	54	545	643
Digesti- ve	67	33	65	0	0	165	31	8	185	272	0	496	661
Genitou- rinary	0	15	54	71	0	140	0	0	39	99	14	152	292
Preg- nancy/ Child- birth	91	320	7	0	0	418	0	0	0	0	0	0	418
Skin	0	0	0	0	0	0	26	46	14	24	0	110	110
Muscles and Skeleton	0	172	27	53	24	276	0	501	854	373	23	1751	2027

*Absences with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix G. Total Number of Calendar Days Absent in Each Diagnostic Category by Gender and Age*

	Women						Men						Tot- al	Tot- al
	Age Group					Tot- al	Age Group					Tot- al		
	16 - 29	30 - 39	40 - 49	50 - 59	60 +		16 - 29	30 - 39	40 - 49	50 - 59	60 +			
Diagnos- tic Category														
Unspeci- fied Symptoms	12	0	0	61	0	73	21	16	36	128	18	219	292	
Injury and Poisoni- ng	77	64	100	6	0	247	43	948	867	181	129	2168	2415	

*Absences with >1 ICD-9-CM code in the same diagnostic category were counted only once.
Only those diagnostic categories with at least one occurrence appear in this table.

BNL 1995

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Women									
		Occupational Group									Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Cler- ical and Supp- ort Wage	Tech- nical	Barg- ain- ing Units	
Diagnostic Category	ICD-9-CM Code										
INFECTIOUS & PARASITIC DISEASES (DIS)	001-139	0	0	0	0	0	0	1	0	2	3
-Intestinal Infectious Dis	001-009	0	0	0	0	0	0	0	0	1	1
-Other Bacterial Dis	030-041	0	0	0	0	0	0	1	0	0	1
-Other Infections & Parasitic Dis	130-136	0	0	0	0	0	0	0	0	1	1
BENIGN & UNCERTAIN NEOPLASMS	210-229, 235- 239	0	0	0	0	1	0	1	0	0	2
ENDOCRINE/ME- TABOLIC/IMMU- NITY	240-279	0	0	0	0	0	1	0	0	1	2
-Other Endocrine Gland Dis	250-259	0	0	0	0	0	1	0	0	0	1
-Other Metabolic & Immunity Disorders	270-279	0	0	0	0	0	0	0	0	1	1
BLOOD & BLOOD FORMING ORGANS	280-289	0	0	0	0	1	0	0	0	0	1
MENTAL DISORDERS	290-319	1	0	0	0	0	0	1	0	1	3

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Women									
		Occupational Group									Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Cler- ical and Supp- ort Wage	Tech- nical	Barg- ain- ing Units	
Diagnostic Category	ICD-9-CM Code										
-Non- Psychotic Disorders	300-302, 306- 316	1	0	0	0	0	0	1	0	1	3
NERVOUS SYSTEM (NS) & SENSE ORGANS	320-389	0	0	2	0	1	0	1	0	0	4
-Disorders of Peripheral NS	350-359	0	0	0	0	0	0	1	0	0	1
-Disorders of Eye	360-379	0	0	1	0	1	0	0	0	0	2
-Dis of Ear & Mastoid	380-389	0	0	1	0	0	0	0	0	0	1
CIRCULATORY SYSTEM	390-459	0	0	0	0	0	1	0	0	1	2
-Ischemic Heart Dis	410-414	0	0	0	0	0	0	0	0	1	1
-Other Heart Dis	420-429	0	0	0	0	0	1	0	0	0	1
RESPIRATORY SYSTEM	460-519	0	2	1	0	5	0	3	0	12	23
-Acute Respiratory Infections	460-466	0	1	0	0	3	0	0	0	7	11
-Other Dis Upper Respiratory Tract	470-478	0	0	0	0	0	0	1	0	0	1
-Pneumonia & Influenza	480-487	0	0	0	0	1	0	0	0	2	3

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Women									
		Occupational Group									Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Cler- ical and Supp- ort Wage	Tech- nical	Barg- ain- ing Units	
Diagnostic Category	ICD-9-CM Code										
-Chronic Obstructive Dis	490-496	0	1	1	0	1	0	2	0	3	8
DIGESTIVE SYSTEM	520-579	0	0	0	0	0	1	3	1	2	7
-Oral Cavity, Saliva Glands, Jaw	520-529	0	0	0	0	0	0	1	0	1	2
-Hernia	550-553	0	0	0	0	0	0	1	0	0	1
-Enteritis, Colitis	555-558	0	0	0	0	0	0	0	0	1	1
-Other Digestive Dis	570-579	0	0	0	0	0	1	1	1	0	3
GENITOURINARY SYSTEM	580-629	0	0	0	0	5	0	1	0	4	10
-Other Urinary Dis	590-599	0	0	0	0	0	0	0	0	1	1
-Breast Disorders	610-611	0	0	0	0	3	0	0	0	0	3
-Pelvic Inflammatory Dis	614-616	0	0	0	0	1	0	0	0	0	1
-Other Female Disorders	617-629	0	0	0	0	1	0	1	0	3	5
PREGNANCY & CHILDBIRTH	630-677	1	0	0	1	0	0	3	0	1	6
-Pregnancy with Abortive Outcome	634-639	0	0	0	1	0	0	0	0	0	1

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Women									
		Occupational Group									Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Cler- ical and Supp- ort Wage	Tech- nical	Barg- aini- ng Units	
Diagnostic Category	ICD-9-CM Code										
-Pregnancy Complications	640-648	0	0	0	0	0	0	1	0	0	1
-Normal Delivery	650-659	0	0	0	0	0	0	2	0	1	3
-Delivery Complications	670-677	1	0	0	0	0	0	0	0	0	1
MUSCULOSKELE- TAL & CONNECTIVE TISSUE	710-739	0	0	2	0	1	1	0	0	9	13
-Arthropathi- es	710-719	0	0	0	0	0	0	0	0	1	1
-Dorsopathies	720-724	0	0	1	0	0	1	0	0	5	7
-Rheumatism, Excluding Back	725-729	0	0	1	0	1	0	0	0	2	4
-Other Dis & Acquired Deformities	730-739	0	0	0	0	0	0	0	0	1	1
SYMPTOMS, SIGNS, & ILL- DEFINED COND.	780-799	0	0	1	0	0	0	1	0	2	4
-Symptoms	780-789	0	0	1	0	0	0	1	0	2	4
INJURY AND POISONING	800-999	0	0	1	0	4	1	0	0	8	14
-Fracture - Neck, Trunk	805-809	0	0	0	0	1	0	0	0	0	1
-Fracture - Lower Limb	820-829	0	0	0	0	0	1	0	0	0	1

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Women									
		Occupational Group									Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Cler- ical and Supp- ort Wage	Tech- nical	Barg- ain- ing Units	
Diagnostic Category	ICD-9-CM Code										
-Sprains & Strains - Back	846-847	0	0	0	0	1	0	0	0	3	4
-Sprains & Strains - Other	840-845, 848	0	0	0	0	1	0	0	0	1	2
-Intracranial Injury	850-854	0	0	0	0	0	0	0	0	1	1
-Superficial Injury	910-919	0	0	1	0	0	0	0	0	1	2
-Contusion	920-924	0	0	0	0	0	0	0	0	1	1
-Complicatio- ns & Unspecified Injuries	958-959	0	0	0	0	0	0	0	0	1	1
-Complicatio- ns of Surgical/Med- ical Care	996-999	0	0	0	0	1	0	0	0	0	1
HEALTH STATUS/HEALTH SERVICE CONTACT	V01-V82	1	0	0	0	0	0	3	0	2	6
-Health Services Reproduction- /Development	V20-V29	1	0	0	0	0	0	2	0	2	5
-Examination & Investigation	V70-V82	0	0	0	0	0	0	1	0	0	1
Total		3	2	7	1	18	5	18	1	45	100

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Men								
		Occupational Group								Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Tech- nical	Barg- aini- ng Units	
Diagnostic Category	ICD-9-CM Code									
INFECTIOUS & PARASITIC DISEASES (DIS)	001-139	0	0	0	1	0	3	0	3	7
-Viral Dis with Exanthem	050-057	0	0	0	0	0	2	0	1	3
-Other Viral Dis & Chlamydiae	070-079	0	0	0	1	0	1	0	2	4
MALIGNANT NEOPLASMS	140-208, 230- 234	0	1	0	1	0	1	0	0	3
-Digestive & Peritoneal	150-159	0	0	0	1	0	0	0	0	1
-Genitourina- ry	179-189	0	1	0	0	0	0	0	0	1
-Other & Unspecified Sites	190, 193-199	0	0	0	0	0	1	0	0	1
BENIGN & UNCERTAIN NEOPLASMS	210-229, 235- 239	1	1	0	0	0	0	0	2	4
ENDOCRINE/ME- TABOLIC/IMMU- NITY	240-279	0	0	0	2	0	0	0	1	3
-Other Endocrine Gland Dis	250-259	0	0	0	1	0	0	0	0	1
-Other Metabolic & Immunity Disorders	270-279	0	0	0	1	0	0	0	1	2

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Men								
		Occupational Group								Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Tech- nical	Barg- aini- ng Units	
Diagnostic Category	ICD-9-CM Code									
BLOOD & BLOOD FORMING ORGANS	280-289	0	0	0	3	0	0	0	0	3
MENTAL DISORDERS	290-319	0	0	0	1	0	0	0	0	1
-Non- Psychotic Disorders	300-302, 306- 316	0	0	0	1	0	0	0	0	1
NERVOUS SYSTEM (NS) & SENSE ORGANS	320-389	0	0	0	4	0	0	1	5	10
-Hereditary/- Degenerative Central NS Dis	330-337	0	0	0	1	0	0	0	0	1
-Disorders of Peripheral NS	350-359	0	0	0	2	0	0	0	1	3
-Disorders of Eye	360-379	0	0	0	1	0	0	0	2	3
-Dis of Ear & Mastoid	380-389	0	0	0	0	0	0	1	2	3
CIRCULATORY SYSTEM	390-459	2	1	0	6	0	3	0	16	28
-Hypertensive Dis	401-405	0	0	0	1	0	1	0	3	5
-Ischemic Heart Dis	410-414	0	1	0	3	0	0	0	3	7
-Other Heart Dis	420-429	0	0	0	2	0	2	0	3	7

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Men								
		Occupational Group								Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Tech- nical	Barg- aini- ng Units	
Diagnostic Category	ICD-9-CM Code									
-Cerebrovas- cular Dis	430-438	1	0	0	0	0	0	0	3	4
-Dis of Veins, Lymphatics, Other	451-459	1	0	0	0	0	0	0	4	5
RESPIRATORY SYSTEM	460-519	0	2	0	12	0	19	10	55	98
-Acute Respiratory Infections	460-466	0	0	0	8	0	14	7	25	54
-Other Dis Upper Respiratory Tract	470-478	0	2	0	2	0	0	0	6	10
-Pneumonia & Influenza	480-487	0	0	0	2	0	4	1	9	16
-Chronic Obstructive Dis	490-496	0	0	0	0	0	1	2	14	17
-Other Respiratory Dis	510-519	0	0	0	0	0	0	0	1	1
DIGESTIVE SYSTEM	520-579	1	0	4	3	0	4	0	12	24
-Oral Cavity, Saliva Glands, Jaw	520-529	0	0	1	0	0	0	0	2	3
-Esophagus, Stomach, Duodenum	530-537	0	0	0	0	0	2	0	2	4

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Men								
		Occupational Group								Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Tech- nical	Barg- ain- ing Units	
Diagnostic Category	ICD-9-CM Code									
-Hernia	550-553	1	0	1	1	0	1	0	4	8
-Enteritis, Colitis	555-558	0	0	0	0	0	1	0	4	5
-Other Intestinal Dis	560-569	0	0	2	2	0	0	0	0	4
GENITOURINARY SYSTEM	580-629	1	1	0	0	0	0	0	6	8
-Nephritis, Nephrosis	580-589	0	0	0	0	0	0	0	4	4
-Other Urinary Dis	590-599	0	0	0	0	0	0	0	1	1
-Male Genital Organ Dis	600-608	1	1	0	0	0	0	0	1	3
SKIN & SUBCUTANEOUS TISSUE	680-709	0	1	0	1	0	0	0	4	6
-Infections	680-686	0	0	0	1	0	0	0	2	3
-Other Inflammatory Conditions	690-698	0	0	0	0	0	0	0	1	1
-Other	700-709	0	1	0	0	0	0	0	1	2
MUSCULOSKELE- TAL & CONNECTIVE TISSUE	710-739	0	0	1	4	0	9	3	32	49
-Arthropathi- es	710-719	0	0	0	3	0	2	0	5	10
-Dorsopathies	720-724	0	0	1	1	0	6	1	16	25

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Men								
		Occupational Group								Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/ Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/ Supv (NE)	Techni- cal	Barg- aini- ng Units	
Diagnostic Category	ICD-9-CM Code									
-Rheumatism, Excluding Back	725-729	0	0	0	0	0	1	1	11	13
-Other Dis & Acquired Deformities	730-739	0	0	0	0	0	0	1	0	1
SYMPTOMS, SIGNS, & ILL- DEFINED COND.	780-799	0	1	0	2	0	5	2	5	15
-Symptoms	780-789	0	1	0	2	0	5	2	5	15
INJURY AND POISONING	800-999	1	3	1	3	2	12	6	36	64
-Fracture - Upper Limb	810-819	1	0	0	0	0	1	0	4	6
-Fracture - Lower Limb	820-829	0	0	1	0	0	0	0	2	3
-Dislocation	830-839	0	1	0	1	0	2	0	1	5
-Sprains & Strains - Back	846-847	0	0	0	1	0	4	0	5	10
-Sprains & Strains - Other	840-845, 848	0	0	0	0	0	3	1	15	19
-Intracranial Injury	850-854	0	1	0	0	0	0	0	0	1
-Internal Injury - Thorax, Abdomen, Pelvis	860-869	0	1	0	0	0	0	0	0	1

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

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Appendix H. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Men								
		Occupational Group								Total
		Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/ Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/ Supv (NE)	Tech- nical	Barg- aini- ng Units	
Diagnostic Category	ICD-9-CM Code									
-Open Wound - Upper Limb	880-887	0	0	0	0	0	1	1	1	3
-Open Wound - Lower Limb	890-897	0	0	0	0	0	1	0	0	1
-Superficial Injury	910-919	0	0	0	0	0	0	0	1	1
-Contusion	920-924	0	0	0	0	2	0	2	6	10
-Complicatio- ns & Unspecified Injuries	958-959	0	0	0	0	0	0	2	1	3
-Complicatio- ns of Surgical/Med- ical Care	996-999	0	0	0	1	0	0	0	0	1
HEALTH STATUS/HEALTH SERVICE CONTACT	V01-V82	0	0	0	1	0	0	0	1	2
-Specific Procedures/A- ftercare	V50-V59	0	0	0	1	0	0	0	0	1
-Examination & Investigation	V70-V82	0	0	0	0	0	0	0	1	1
Total		6	11	6	44	2	56	22	178	325

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

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Appendix I. Total Number of Calendar Days Absent in Each Diagnostic Category by Gender and Occupation*

	Women									
	Occupational Group									Total
	Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Cler- ical and Supp- ort Wage	Tech- nical	Barg- aini- ng Units	
Diagnostic Category										
Infections/Parasites	0	0	0	0	0	0	5	0	16	21
Benign Growths	0	0	0	0	51	0	43	0	0	94
Endocrine/Metabolic	0	0	0	0	0	42	0	0	7	49
Blood	0	0	0	0	54	0	0	0	0	54
Mental	44	0	0	0	0	0	6	0	5	55
Nervous System	0	0	32	0	7	0	98	0	0	137
Heart/Circulatory	0	0	0	0	0	42	0	0	6	48
Lung/Respiratory	0	12	18	0	7	0	13	0	48	98
Digestive	0	0	0	0	0	11	77	14	63	165
Genitourinary	0	0	0	0	61	0	5	0	74	140
Pregnancy/Childbirth	106	0	0	7	0	0	214	0	91	418
Muscles and Skeleton	0	0	53	0	11	50	0	0	162	276
Unspecified Symptoms	0	0	39	0	0	0	22	0	12	73
Injury and Poisoning	0	0	11	0	103	42	0	0	91	247

*Absences with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

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Appendix I. Total Number of Calendar Days Absent in Each Diagnostic Category by Gender and Occupation*

	Men								
	Occupational Group								Total
	Scie- ntif- ic	Pro- fess- ional	Admi- nist- rati- ve (E)	Tech Supp- ort/- Supv (E)	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Tech- nical	Barg- aini- ng Units	
Diagnostic Category									
Infections/Parasites	0	0	0	51	0	25	0	33	109
Cancers	0	15	0	134	0	16	0	0	165
Benign Growths	35	26	0	0	0	0	0	32	93
Endocrine/Metabolic	0	0	0	82	0	0	0	14	96
Blood	0	0	0	51	0	0	0	0	51
Mental	0	0	0	6	0	0	0	0	6
Nervous System	0	0	0	74	0	0	8	56	138
Heart/Circulatory	26	42	0	139	0	39	0	477	723
Lung/Respiratory	0	42	0	49	0	55	52	347	545
Digestive	15	0	60	63	0	83	0	275	496
Genitourinary	15	14	0	0	0	0	0	123	152
Skin	0	26	0	24	0	0	0	60	110
Muscles and Skeleton	0	0	7	65	0	191	27	1461	1751
Unspecified Symptoms	0	18	0	20	0	85	15	81	219
Injury and Poisoning	15	85	36	167	104	198	53	1510	2168

*Absences with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

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Appendix J. Relative Risk Estimates for Selected Diagnostic Categories Among Five-Day Absences

Diseases	Management 116 Person-Years				Scientific 670 Person-Years				Professional 730 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diseases and Injuries	0				6	0.1	0.05	0.2	10	0.2	0.1	0.3
Nervous System	0				0				0			
Heart/Circulatory	0				2	0.3	0.1	1.3	1	0.2	0.03	1.4
Lung/Respiratory	0				0				3	0.2	0.1	0.6
Digestive	0				1	0.2	0.02	1.3	0			
Genitourinary	0				1	0.5	0.06	3.9	1	0.5	0.06	3.6
Muscles and Skeleton	0				0				0			
Injury and Poisoning	0				1	0.07	0.01	0.5	3	0.2	0.06	0.6
Back Sprains and Strains	0				0				0			
Other Sprains and Strains	0				0				0			

Diseases	Administrative (E) 277 Person-Years				Tech Support/Supv (E) 388 Person-Years				Administrative (NE) 212 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diseases and Injuries	10	0.5	0.3	1.0	23	0.8	0.5	1.3	10	0.7	0.4	1.4
Nervous System	2	1.8	0.4	9.6	4	4.4	1.1	18.0	1	1.0	0.1	11.6
Heart/Circulatory	0				5	1.3	0.5	3.5	0			
Lung/Respiratory	1	0.2	0.03	1.7	5	0.6	0.3	1.5	1	0.3	0.05	2.3
Digestive	3	1.6	0.5	4.9	3	0.8	0.2	2.6	0			
Genitourinary	0				0				2	1.9	0.3	11.7
Muscles and Skeleton	3	0.8	0.2	2.9	3	0.5	0.1	1.6	1	0.3	0.03	2.6
Injury and Poisoning	2	0.5	0.1	2.1	3	0.4	0.1	1.3	5	2.5	0.8	7.5
Back Sprains and Strains	0				1	0.7	0.1	5.2	1	1.5	0.2	10.1
Other Sprains and Strains	0				0				1	1.9	0.1	30.2

* Persons with multiple absences during the time period were counted only once.

** RR = Relative Risk. Adjusted for age and gender; compared with all occupational categories.

*** CI = Confidence Limit.

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Appendix J. Relative Risk Estimates for Selected Diagnostic Categories Among Five-Day Absences

Diseases	Tech Support/Subv (NE) 333 Person-Years				Clerical and Support Wage 112 Person-Years				Technical 116 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diseases and Injuries	33	1.5	1.1	2.2	11	1.9	1.0	3.6	17	2.5	1.5	4.2
Nervous System	0				1	4.0	0.5	33.4	1	4.3	0.4	41.2
Heart/Circulatory	3	1.8	0.6	5.7	0				0			
Lung/Respiratory	7	1.0	0.5	2.1	2	1.5	0.3	6.8	7	3.5	1.6	7.9
Digestive	5	2.7	1.0	7.0	3	4.8	1.1	21.3	1	2.0	0.3	14.5
Genitourinary	0				1	2.1	0.2	19.3	0			
Muscles and Skeleton	5	1.1	0.4	2.7	0				3	2.3	0.7	7.7
Injury and Poisoning	12	1.7	0.9	3.3	0				5	2.1	0.8	5.3
Back Sprains and Strains	4	3.9	1.1	13.8	0				0			
Other Sprains and Strains	3	1.3	0.4	4.4	0				1	1.1	0.2	7.5

Diseases	Bargaining Units 623 Person-Years				Miscellaneous 140 Person-Years				Total Persons with 1+ Event
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	
All Diseases and Injuries	125	5.2	4.0	6.8	0				24
Nervous System	4	2.4	0.7	8.2	0				13
Heart/Circulatory	13	6.0	2.6	13.9	0				24
Lung/Respiratory	41	7.9	4.8	13.0	0				67
Digestive	12	3.7	1.7	7.9	0				28
Genitourinary	6	8.1	2.3	28.2	0				11
Muscles and Skeleton	33	10.3	5.6	18.9	0				48
Injury and Poisoning	34	5.1	3.1	8.4	0				65
Back Sprains and Strains	8	5.9	2.2	15.9	0				14
Other Sprains and Strains	14	14.7	4.8	45.5	0				19

* Persons with multiple absences during the time period were counted only once.

** RR = Relative Risk. Adjusted for age and gender; compared with all occupational categories.

*** CI = Confidence Limit.

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Appendix K: Occupational Sentinel Health Events (SHEO)

The following two tables list the disease conditions that have been identified as definitely SHEOs or as possibly SHEOs, respectively (Rutstein, D.D., et al., "Sentinel Health Events [Occupational]: A Basis for Physician Recognition and Public Health Surveillance," *American Journal of Public Health*, 1983, 73[9]:1054-1062). To make these categories more meaningful to the DOE workplace environment, we evaluated these two SHEO categories, taking into account workplace exposures in the DOE complex, and defined two additional groups of health conditions called *production* and *nonproduction*. We designated these conditions in the last column of each table, labeled *DOE Complex Exposure Potential*. Each group is defined as follows:

Production: Disease conditions that can result from exposures that may occur during production or cleanup activities within the DOE complex. Twenty-two conditions are included in this group.

Nonproduction: Disease conditions that can be related to occupations within the DOE complex but not exposures related to production or cleanup activities. This group includes 11 conditions.

Conditions for which neither designation has been assigned may occur in the work force but are less likely to be related to exposures in the DOE complex than those conditions with a designation of *production* or *nonproduction*.

Health Conditions - Definitely SHEOs		
ICD-9	Condition	DOE Complex Exposure Potential
155	Hemangiosarcoma of the liver	
158, 163	Mesothelioma (MN of peritoneum and pleura)	Production
187.7	Malignant neoplasm of scrotum	Production
354M	Carpal tunnel syndrome	Nonproduction
354.0	Mononeuritis of upper limb and mononeuritis multiplex	
495.4	Maltworker's lung	
495.5	Mushroom worker's lung	
495.8	Grain handler's lung, Sequoiosis	
495.9	Unspecified allergic alveolitis	
500	Coalworker's pneumoconiosis	
501	Asbestosis	Production
502	Silicosis, Talcosis	Production
503	Chronic beryllium disease of the lung	
504	Byssinosis	
506.0	Acute bronchitis, pneumonitis, and pulmonary edema due to fumes and vapors	Nonproduction

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Appendix K: Occupational Sentinel Health Events (SHEO)

Health Conditions - <i>Possibly SHEOs</i>		
ICD-9	Condition	DOE Complex Exposure Potential
011	Pulmonary tuberculosis	
011,502	Silicotuberculosis	Production
020	Plague	
021	Tularemia	
022	Anthrax	
023	Brucellosis	
031.1	Fish-fancier's finger	
054.6	Herpetic whitlow	
037	Tetanus	Nonproduction
042	Human immunodeficiency virus	
056	Rubella	
070.0, 070.1	Hepatitis A	
070.2, 070.3	Hepatitis B	
070.4	Non-A, non-B hepatitis	
071	Rabies	Nonproduction
073	Ornithosis	
082.0	Rocky Mountain spotted fever	
100.8	Leptospirosis	
115	Histoplasmosis	Nonproduction
117.1	Sporotrichosis	
147	Malignant neoplasm of nasopharynx	Nonproduction
160.0	Malignant neoplasm of nasal cavities	Nonproduction
161	Malignant neoplasm of larynx	Production
162	Malignant neoplasm of trachea, bronchus, and lung	Production
170	Malignant neoplasm of bone	Production

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Appendix K: Occupational Sentinel Health Events (SHEO)

Health Conditions - <i>Possibly SHEOs (continued)</i>		
ICD-9	Condition	DOE Complex Exposure Potential
188	Malignant neoplasm of bladder	Production
189	Malignant neoplasm of kidney, other, and unspecified urinary organs	Nonproduction
204.0	Acute lymphoid leukemia	Production
205.0	Acute myeloid leukemia	Production
207.0	Erythroleukemia	Production
283.1	Hemolytic anemia, nonautoimmune	
284.8	Aplastic anemia	Production
288.0	Agranulocytosis or neutropenia	Production
289.7	Methemoglobinemia	Nonproduction
323.7	Toxic encephalitis	Production
332.1	Parkinson's disease (secondary)	
334.3	Cerebellar ataxia	Production
357.7	Inflammatory and toxic neuropathy	Production
366.4	Cataract	Production
388.11	Noise effects on inner ear	Production
443.0	Raynaud's phenomenon (secondary)	Nonproduction
493.0, 507.8	Extrinsic asthma	Nonproduction
570, 573.3	Toxic hepatitis	Production
584, 585	Acute or chronic renal failure	Production
606	Infertility, male	
692	Contact and allergic dermatitis	Production
733.9	Skeletal fluorosis	

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Appendix L. Number of Workers with at Least One OSHA Event by Gender, Age, and Occupation*

		Women					Men						Total
		Age Group				Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Occupational Group													
Scientific		0	0	0	1	1	1	0	1	0	1	3	4
Professional		0	0	0	0	0	0	0	2	0	0	2	2
Tech Support/Supv (E)		0	0	0	0	0	0	0	2	2	0	4	4
Administrative (NE)		1	0	1	0	2	0	0	0	0	0	0	2
Tech Support/Supv (NE)		0	0	0	1	1	2	6	6	2	0	16	17
Clerical and Support Wage		0	1	0	0	1	0	0	0	0	0	0	1
Technical		1	0	0	0	1	0	4	2	1	0	7	8
Bargaining Units		0	1	0	1	2	5	21	19	17	3	65	67
Miscellaneous		0	0	0	0	0	0	0	1	0	0	1	1
Total		2	2	1	3	8	8	31	33	22	4	98	106

*Only those occupational groups and gender/age combinations with at least one OSHA event appear in this table.

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Appendix M. Total Number of Workdays Lost or with Restricted Activity from OSHA Events by Gender and Age

	Women			Men			Total		
	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost
Age Group									
16 - 29	2	0	14	8	23	17	10	23	31
30 - 39	2	10	42	34	168	247	36	178	289
40 - 49	1	0	11	35	190	119	36	190	130
50 - 59	3	3	4	23	48	187	26	51	191
60 +	0	0	0	4	0	2	4	0	2
Total	8	13	71	104	429	572	112	442	643

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Appendix N. Total Number of Workdays Lost or with Restricted Activity from OSHA Events by Gender and Occupation*

	Women			Men			Total		
	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost	# of Events	Days Restr- icted	Days Lost
Occupational Group									
Scientific	1	0	0	3	0	0	4	0	0
Professional	0	0	0	2	0	1	2	0	1
Tech Support/Supv (E)	0	0	0	4	0	0	4	0	0
Administrative (NE)	2	0	25	0	0	0	2	0	25
Tech Support/Supv (NE)	1	0	0	17	173	145	18	173	145
Clerical and Support Wage	1	0	0	0	0	0	1	0	0
Technical	1	0	0	7	27	22	8	27	22
Bargaining Units	2	13	46	70	229	401	72	242	447
Miscellaneous	0	0	0	1	0	3	1	0	3
Total	8	13	71	104	429	572	112	442	643

*Only those occupational groups with at least one OSHA event appear in this table.

BNL 1995

Appendix 0. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women					Men						Total
		Age Group				Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code												
ENDOCRINE/METABOLIC/IMMUNITY	240-279	0	0	0	0	0	0	1	0	1	0	2	2
-Other Endocrine Gland Dis	250-259	0	0	0	0	0	0	0	0	1	0	1	1
-Other Metabolic & Immunity Disorders	270-279	0	0	0	0	0	0	1	0	0	0	1	1
NERVOUS SYSTEM (NS) & SENSE ORGANS	320-389	0	1	0	0	1	0	0	0	0	0	0	1
-Disorders of Peripheral NS	350-359	0	1	0	0	1	0	0	0	0	0	0	1
CIRCULATORY SYSTEM	390-459	0	0	0	0	0	0	0	0	1	0	1	1
-Dis of Veins, Lymphatics, Other	451-459	0	0	0	0	0	0	0	0	1	0	1	1
DIGESTIVE SYSTEM	520-579	0	0	0	0	0	0	0	1	0	0	1	1
-Hernia	550-553	0	0	0	0	0	0	0	1	0	0	1	1
SKIN & SUBCUTANEOUS TISSUE	680-709	0	0	0	0	0	0	0	1	0	0	1	1
-Other Inflammatory Conditions	690-698	0	0	0	0	0	0	0	1	0	0	1	1
MUSCULOSKELETAL & CONNECTIVE TISSUE	710-739	0	0	1	0	1	1	4	4	3	0	12	13

*Only those diagnostic categories and gender/age combinations with at least one OSHA event appear in this table.

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BNL 1995

Appendix 0. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women					Men						Total
		Age Group				Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code												
-Arthropathies	710-719	0	0	1	0	1	0	3	0	1	0	4	5
-Dorsopathies	720-724	0	0	0	0	0	0	1	3	1	0	5	5
-Rheumatism, Excluding Back	725-729	0	0	0	0	0	1	0	1	1	0	3	3
SYMPTOMS, SIGNS, & ILL-DEFINED COND.	780-799	0	0	0	0	0	0	1	1	3	0	5	5
-Symptoms	780-789	0	0	0	0	0	0	1	1	3	0	5	5
INJURY AND POISONING	800-999	2	1	1	5	9	9	35	36	21	4	105	114
-Fracture - Upper Limb	810-819	0	0	0	1	1	1	0	1	0	0	2	3
-Sprains & Strains - Back	846-847	1	1	0	1	3	4	9	8	4	1	26	29
-Sprains & Strains - Other	840-845, 848	0	0	1	0	1	3	6	5	3	0	17	18
-Internal Injury - Thorax, Abdomen, Pelvis	860-869	0	0	0	0	0	0	0	1	0	0	1	1
-Open Wound - Head, Neck, Trunk	870-879	0	0	0	0	0	0	0	4	1	1	6	6
-Open Wound - Upper Limb	880-887	1	0	0	0	1	1	5	7	7	1	21	22
-Open Wound - Lower Limb	890-897	0	0	0	0	0	0	0	0	1	1	2	2

*Only those diagnostic categories and gender/age combinations with at least one OSHA event appear in this table.

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BNL 1995

Appendix 0. Number of Health Conditions in Each Diagnostic Category by Gender and Age*

		Women					Men						Total
		Age Group				Total	Age Group					Total	
		16 - 29	30 - 39	40 - 49	50 - 59		16 - 29	30 - 39	40 - 49	50 - 59	60 +		
Diagnostic Category	ICD-9-CM Code												
-Superficial Injury	910-919	0	0	0	1	1	0	0	4	1	0	5	6
-Contusion	920-924	0	0	0	2	2	0	5	1	3	0	9	11
-Foreign Body Entering Orifice	930-939	0	0	0	0	0	0	2	1	0	0	3	3
-Injury to Nerves & Spinal Cord	950-957	0	0	0	0	0	0	1	0	0	0	1	1
-Complications & Unspecified Injuries	958-959	0	0	0	0	0	0	5	3	1	0	9	9
-Toxic Effects - Nonmedicinal	980-989	0	0	0	0	0	0	1	1	0	0	2	2
-Unspecified Effects - External Causes	990-995	0	0	0	0	0	0	1	0	0	0	1	1
Total		2	2	2	5	11	10	41	43	29	4	127	138

*Only those diagnostic categories and gender/age combinations with at least one OSHA event appear in this table.

BNL 1995

Appendix P. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Age*

		Women							
		Age Group							
		16 - 29		30 - 39		40 - 49		50 - 59	
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost
Diagnostic Category	ICD-9-CM Codes								
-Disorders of Peripheral NS	350-359	0	0	0	0	0	0	0	0
-Arthropathies	710-719	0	0	0	0	0	11	0	0
-Fractures - Upper Limb	810-819	0	0	0	0	0	0	0	0
-Back Sprains and Strains	846-847	0	14	10	42	0	0	0	0
-Other Sprains and Strains	840-845, 848	0	0	0	0	0	11	0	0
-Open Wounds Upper Limb	880-887	0	0	0	0	0	0	0	0
-Superficial Injuries	910-919	0	0	0	0	0	0	3	4
-Bruises	920-924	0	0	0	0	0	0	3	4

*OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/age combinations with at least one occurrence appear in this table.

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BNL 1995

Appendix P. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Age*

		Men									
		Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diagnostic Category	ICD-9-CM Codes										
-Other Endocrine Glands	250-259	0	0	0	0	0	0	0	0	0	0
-Other Metabolic and Immunity Disorders	270-279	0	0	0	0	0	0	0	0	0	0
-Diseases of Veins, Lymphatics, Other	451-459	0	0	0	0	0	0	0	24	0	0
-Hernias	550-553	0	0	0	0	0	0	0	0	0	0
-Other Inflammatory Conditions	690-698	0	0	0	0	0	0	0	0	0	0
-Arthropathies	710-719	0	0	60	33	0	0	0	24	0	0
-Dorsopathies	720-724	0	0	0	13	86	70	0	6	0	0
-Rheumatism, Excluding Back	725-729	6	0	0	0	0	0	0	0	0	0
-Symptoms	780-789	0	0	1	0	0	1	0	34	0	0
-Fractures - Upper Limb	810-819	0	0	0	0	0	0	0	0	0	0
-Back Sprains and Strains	846-847	0	10	39	46	101	83	7	0	0	0

*OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/age combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix P. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Age*

		Men									
		Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost
Diagnostic Category	ICD-9-CM Codes										
-Other Sprains and Strains	840-845, 848	17	7	17	5	60	20	17	17	0	0
-Internal Injuries - Thorax, Abdomen, Pelvis	860-869	0	0	0	0	2	1	0	0	0	0
-Open Wounds Head, Neck, Trunk	870-879	0	0	0	0	2	2	0	1	0	0
-Open Wounds Upper Limb	880-887	0	0	10	5	0	0	0	0	0	0
-Open Wounds Lower Limb	890-897	0	0	0	0	0	0	0	2	0	2
-Superficial Injuries	910-919	0	0	0	0	0	0	0	2	0	0
-Bruises	920-924	0	0	6	5	0	2	0	3	0	0
-Foreign Bodies Entering Orifice	930-939	0	0	0	0	0	1	0	0	0	0
-Injuries to Nerves and Spinal Cord	950-957	0	0	32	1	0	0	0	0	0	0
-Unspecified Injuries	958-959	0	0	3	172	25	9	24	102	0	0

*OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/age combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix P. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Age*

		Men									
		Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost
Diagnostic Category	ICD-9-CM Codes										
-Adverse Reactions to Nonmedical Substances	980-989	0	0	1	0	0	1	0	0	0	0
-Adverse Reactions to External Causes	990-995	0	0	0	0	0	0	0	0	0	0

*OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/age combinations with at least one occurrence appear in this table.

BNL 1995

Appendix Q. Number of Occurrences in Each Accident Category by Gender and Age*

		Women					Men					Total	Total	
		Age Group				Total	Age Group							Total
		16 - 29	30 - 39	40 - 49	50 - 59		16 - 29	30 - 39	40 - 49	50 - 59	60 +			
Type of Accident	E Codes													
Motor Vehicle Traffic	E810-E819	0	0	0	0	0	0	0	1	0	0	1	1	
Motor Vehicle Nontraffic	E820-E825	0	0	0	0	0	0	1	0	0	0	1	1	
Accidental Poisoning - Nonmedicinal	E860-E869	0	0	0	0	0	0	1	1	0	0	2	2	
Falls	E880-E888	0	0	1	2	3	2	6	5	0	0	13	16	
Natural/Environmental Factors	E900-E909	0	0	0	0	0	0	1	2	0	0	3	3	
Submersion/Suffocation/Foreign Bodies	E910-E915	0	0	0	0	0	0	2	1	0	0	3	3	
Other Accidents	E916-E928	2	1	0	1	4	6	20	21	18	4	69	73	

*Only those accident types and gender/age combinations with at least one occurrence appear in this table.

BNL 1995

Appendix R. Number of Workdays Lost or with Restricted Activity for Each Accident Category by Gender and Age*

		Women							
		Age Group							
		16 - 29		30 - 39		40 - 49		50 - 59	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Type of Accident	E Codes								
Falls	E880-E888	0	0	0	0	0	11	3	4
Other Accidents	E916-E928	0	14	10	42	0	0	0	0

*OSHA events with >1 E code in the same accident type were counted only once. Only those accident types and gender/age combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix R. Number of Workdays Lost or with Restricted Activity for Each Accident Category by Gender and Age*

		Men									
		Age Group									
		16 - 29		30 - 39		40 - 49		50 - 59		60 +	
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost
Type of Accident	E Codes										
Motor Vehicle Traffic	E810-E819	0	0	0	0	10	6	0	0	0	0
Motor Vehicle Nontraffic	E820-E825	0	0	0	1	0	0	0	0	0	0
Accidental Poisoning - Nonmedicinal	E860-E869	0	0	1	0	0	1	0	0	0	0
Falls	E880-E888	17	7	77	107	10	3	0	0	0	0
Natural/Envi- ronmental Factors	E900-E909	0	0	0	0	0	0	0	0	0	0
Submersion/S- uffocation/F- oreign Bodies	E910-E915	0	0	0	0	0	1	0	0	0	0
Other Accidents	E916-E928	6	10	90	94	86	40	47	119	0	2

*OSHA events with >1 E code in the same accident type were counted only once. Only those accident types and gender/age combinations with at least one occurrence appear in this table.

BNL 1995

Appendix S. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Women						
		Occupational Group						Total
		Scie- ntif- ic	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Cler- ical and Supp- ort Wage	Techn- ical	Barg- aini- ng Units	
Diagnostic Category	ICD-9-CM Code							
NERVOUS SYSTEM (NS) & SENSE ORGANS	320-389	0	0	0	1	0	0	1
-Disorders of Peripheral NS	350-359	0	0	0	1	0	0	1
MUSCULOSKELE- TAL & CONNECTIVE TISSUE	710-739	0	1	0	0	0	0	1
-Arthropathi- es	710-719	0	1	0	0	0	0	1
INJURY AND POISONING	800-999	1	2	2	0	1	3	9
-Fracture - Upper Limb	810-819	1	0	0	0	0	0	1
-Sprains & Strains - Back	846-847	0	1	1	0	0	1	3
-Sprains & Strains - Other	840-845, 848	0	1	0	0	0	0	1
-Open Wound - Upper Limb	880-887	0	0	0	0	1	0	1
-Superficial Injury	910-919	0	0	0	0	0	1	1
-Contusion	920-924	0	0	1	0	0	1	2
Total		1	3	2	1	1	3	11

*Only those diagnostic categories and gender/age combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix S. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Men							
		Occupational Group							Total
		Scie- ntif- ic	Pro- fess- ional	Tech Supp- ort/- Supv (E)	Tech Supp- ort/- Supv (NE)	Techni- cal	Barg- aini- ng Units	Misc- ella- neous	
Diagnostic Category	ICD-9-CM Code								
ENDOCRINE/METABOLIC/IMMUNITY	240-279	0	0	0	0	0	2	0	2
-Other Endocrine Gland Dis	250-259	0	0	0	0	0	1	0	1
-Other Metabolic & Immunity Disorders	270-279	0	0	0	0	0	1	0	1
CIRCULATORY SYSTEM	390-459	0	0	0	0	0	1	0	1
-Dis of Veins, Lymphatics, Other	451-459	0	0	0	0	0	1	0	1
DIGESTIVE SYSTEM	520-579	0	0	0	1	0	0	0	1
-Hernia	550-553	0	0	0	1	0	0	0	1
SKIN & SUBCUTANEOUS TISSUE	680-709	0	0	0	0	0	1	0	1
-Other Inflammatory Conditions	690-698	0	0	0	0	0	1	0	1
MUSCULOSKELE- TAL & CONNECTIVE TISSUE	710-739	0	0	0	3	1	8	0	12

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

Appendix S. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Men							
		Occupational Group							Total
		Scie- ntif- ic	Pro- fess- ional	Tech Supp- ort/- Supv (E)	Tech Supp- ort/- Supv (NE)	Techni- cal	Barg- aini- ng Units	Misc- ella- neous	
Diagnostic Category	ICD-9-CM Code								
-Arthropathi- es	710-719	0	0	0	0	0	4	0	4
-Dorsopathies	720-724	0	0	0	1	1	3	0	5
-Rheumatism, Excluding Back	725-729	0	0	0	2	0	1	0	3
SYMPTOMS, SIGNS, & ILL- DEFINED COND.	780-799	0	0	0	3	1	1	0	5
-Symptoms	780-789	0	0	0	3	1	1	0	5
INJURY AND POISONING	800-999	4	2	4	17	6	71	1	105
-Fracture - Upper Limb	810-819	1	0	0	1	0	0	0	2
-Sprains & Strains - Back	846-847	0	1	0	3	1	21	0	26
-Sprains & Strains - Other	840-845, 848	0	0	0	3	0	13	1	17
-Internal Injury - Thorax, Abdomen, Pelvis	860-869	0	0	0	0	0	1	0	1
-Open Wound - Head, Neck, Trunk	870-879	2	0	0	1	0	3	0	6

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix S. Number of Health Conditions in Each Diagnostic Category by Gender and Occupation*

		Men							
		Occupational Group							Total
		Scie- ntif- ic	Pro- fess- ional	Tech Supp- ort/- Supv (E)	Tech Supp- ort/- Supv (NE)	Tech- nical	Barg- aini- ng Units	Misc- ella- neous	
Diagnostic Category	ICD-9-CM Code								
-Open Wound - Upper Limb	880-887	1	1	4	2	1	12	0	21
-Open Wound - Lower Limb	890-897	0	0	0	1	0	1	0	2
-Superficial Injury	910-919	0	0	0	2	0	3	0	5
-Contusion	920-924	0	0	0	1	1	7	0	9
-Foreign Body Entering Orifice	930-939	0	0	0	1	1	1	0	3
-Injury to Nerves & Spinal Cord	950-957	0	0	0	1	0	0	0	1
-Complicatio- ns & Unspecified Injuries	958-959	0	0	0	1	1	7	0	9
-Toxic Effects - Nonmedicinal	980-989	0	0	0	0	1	1	0	2
-Unspecified Effects - External Causes	990-995	0	0	0	0	0	1	0	1
Total		4	2	4	24	8	84	1	127

*Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

BNL 1995

Appendix T. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Occupation*

		Women											
		Occupational Group											
		Scientific		Administrative (NE)		Tech Support/-Supv (NE)		Clerical and Support Wage		Technical		Bargaining Units	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diagnostic Category	ICD-9-CM Codes												
-Disorders of Peripheral NS	350-359	0	0	0	0	0	0	0	0	0	0	0	0
-Arthropathies	710-719	0	0	0	11	0	0	0	0	0	0	0	0
-Fractures - Upper Limb	810-819	0	0	0	0	0	0	0	0	0	0	0	0
-Back Sprains and Strains	846-847	0	0	0	14	0	0	0	0	0	0	10	42
-Other Sprains and Strains	840-845, 848	0	0	0	11	0	0	0	0	0	0	0	0
-Open Wounds Upper Limb	880-887	0	0	0	0	0	0	0	0	0	0	0	0
-Superficial Injuries	910-919	0	0	0	0	0	0	0	0	0	0	3	4
-Bruises	920-924	0	0	0	0	0	0	0	0	0	0	3	4

*OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix T. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Occupation*

		Men													
		Occupational Group													
		Scientif- ic		Profes- sional		Tech Support/- Supv (E)		Tech Support/- Supv (NE)		Technical		Bargain- ing Units		Miscella- neous	
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost
Diagnostic Category	ICD-9-CM Codes														
-Other Endocrine Glands	250-259	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Metabolic and Immunity Disorders	270-279	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Diseases of Veins, Lymphatics, Other	451-459	0	0	0	0	0	0	0	0	0	0	0	24	0	0
-Hernias	550-553	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Other Inflammatory Conditions	690-698	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Arthropathi- es	710-719	0	0	0	0	0	0	0	0	0	0	60	57	0	0
-Dorsopathies	720-724	0	0	0	0	0	0	84	68	0	6	2	15	0	0
-Rheumatism, Excluding Back	725-729	0	0	0	0	0	0	6	0	0	0	0	0	0	0
-Symptoms	780-789	0	0	0	0	0	0	0	34	1	0	0	1	0	0
-Fractures - Upper Limb	810-819	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-Back Sprains and Strains	846-847	0	0	0	1	0	0	84	81	6	4	57	53	0	0

*OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix T. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Occupation*

		Men													
		Occupational Group													
		Scientific		Professional		Tech Support/-Supv (E)		Tech Support/-Supv (NE)		Technical		Bargaining Units		Miscellaneous	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Diagnostic Category	ICD-9-CM Codes														
-Other Sprains and Strains	840-845, 848	0	0	0	0	0	0	48	10	0	0	63	36	0	3
-Internal Injuries - Thorax, Abdomen, Pelvis	860-869	0	0	0	0	0	0	0	0	0	0	2	1	0	0
-Open Wounds Head, Neck, Trunk	870-879	0	0	0	0	0	0	0	0	0	0	2	3	0	0
-Open Wounds Upper Limb	880-887	0	0	0	0	0	0	0	0	10	5	0	0	0	0
-Open Wounds Lower Limb	890-897	0	0	0	0	0	0	0	2	0	0	0	2	0	0
-Superficial Injuries	910-919	0	0	0	0	0	0	0	2	0	0	0	0	0	0
-Bruises	920-924	0	0	0	0	0	0	0	2	0	0	6	8	0	0
-Foreign Bodies Entering Orifice	930-939	0	0	0	0	0	0	0	0	0	1	0	0	0	0
-Injuries to Nerves and Spinal Cord	950-957	0	0	0	0	0	0	32	1	0	0	0	0	0	0
-Unspecified Injuries	958-959	0	0	0	0	0	0	3	17	10	6	39	260	0	0

*OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix T. Number of Workdays Lost or with Restricted Activity in Each Diagnostic Category by Gender and Occupation*

		Men													
		Occupational Group													
		Scientif- ic		Profes- sional		Tech Support/- Supv (E)		Tech Support/- Supv (NE)		Technical		Bargaini- ng Units		Miscella- neous	
		Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost	Days Res- tri- cted	Days Lost
Diagnostic Category	ICD-9-CM Codes														
-Adverse Reactions to Nonmedical Substances	980-989	0	0	0	0	0	0	0	0	1	0	0	1	0	0
-Adverse Reactions to External Causes	990-995	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*OSHA events with >1 ICD-9-CM code in the same diagnostic category were counted only once. Only those diagnostic categories and gender/occupational combinations with at least one occurrence appear in this table.

BNL 1995

Appendix U. Number of Occurrences in Each Accident Category by Gender and Occupation*

		Women					
		Occupational Group					Total
		Scie- ntif- ic	Admi- nist- rati- ve (NE)	Tech Supp- ort/- Supv (NE)	Tech- nical	Barg- aini- ng Units	
Type of Accident	E Codes						
Falls	E880-E888	0	1	1	0	1	3
Other Accidents	E916-E928	1	1	0	1	1	4

*Only those accident types and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

Appendix U. Number of Occurrences in Each Accident Category by Gender and Occupation*

		Men							
		Occupational Group							Total
		Scie- ntif- ic	Pro- fess- ional	Tech Supp- ort/- Supv (E)	Tech Supp- ort/- Supv (NE)	Tech- nical	Barg- aini- ng Units	Misc- ella- neous	
Type of Accident	E Codes								
Motor Vehicle Traffic	E810-E819	0	0	0	0	1	0	0	1
Motor Vehicle Nontraffic	E820-E825	0	0	0	0	0	1	0	1
Accidental Poisoning - Nonmedicinal	E860-E869	0	0	0	0	1	1	0	2
Falls	E880-E888	1	0	0	3	0	9	0	13
Natural/Envi- ronmental Factors	E900-E909	0	0	0	0	0	3	0	3
Submersion/S- uffocation/F- oreign Bodies	E910-E915	0	0	0	1	1	1	0	3
Other Accidents	E916-E928	2	2	4	8	3	49	1	69

*Only those accident types and gender/occupational combinations with at least one occurrence appear in this table.

BNL 1995

Appendix V. Number of Workdays Lost or with Restricted Activity in Each Accident Category by Gender and Occupation*

		Women									
		Occupational Group									
		Scientif-ic		Administ-rative (NE)		Tech Support/-Supv (NE)		Technical		Bargaini-ng Units	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Type of Accident	E Codes										
Falls	E880-E888	0	0	0	11	0	0	0	0	3	4
Other Accidents	E916-E928	0	0	0	14	0	0	0	0	10	42

*OSHA events with >1 E code in the same accident type were counted only once. Only those accident types and gender/occupational combinations with at least one occurrence appear in this table.

(CONTINUED)

BNL 1995

Appendix V. Number of Workdays Lost or with Restricted Activity in Each Accident Category by Gender and Occupation*

		Men													
		Occupational Group													
		Scientif-ic		Profes-sional		Tech Support/-Supv (E)		Tech Support/-Supv (NE)		Technical		Bargaini-ng Units		Miscella-neous	
		Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost	Days Res-tri-cted	Days Lost
Type of Accident	E Codes														
Motor Vehicle Traffic	E810-E819	0	0	0	0	0	0	0	0	10	6	0	0	0	0
Motor Vehicle Nontraffic	E820-E825	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Accidental Poisoning - Nonmedicinal	E860-E869	0	0	0	0	0	0	0	0	1	0	0	1	0	0
Falls	E880-E888	0	0	0	0	0	0	5	0	0	0	99	117	0	0
Natural/Environmental Factors	E900-E909	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Submersion/Suffocation/Foreign Bodies	E910-E915	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Other Accidents	E916-E928	0	0	0	1	0	0	84	41	16	9	129	211	0	3

*OSHA events with >1 E code in the same accident type were counted only once. Only those accident types and gender/occupational combinations with at least one occurrence appear in this table.

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Appendix W. Relative Risk Estimates for Selected Diagnostic Categories Among OSHA Events

Diseases	Management 116 Person-Years				Scientific 670 Person-Years				Professional 730 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diseases and Injuries	0				4	0.2	0.1	0.4	2	0.1	0.02	0.3
Muscles and Skeleton	0				0				0			
Injury and Poisoning	0				4	0.2	0.1	0.5	2	0.1	0.02	0.3
Back Sprains and Strains	0				0				1	0.1	0.02	1.0
Other Sprains and Strains	0				0				0			
Open Wounds - Upper Limb	0				1	0.2	0.03	1.4	1	0.2	0.02	1.4
Bruises	0				0				0			

Diseases	Administrative (E) 277 Person-Years				Tech Support/Supv (E) 388 Person-Years				Administrative (NE) 212 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diseases and Injuries	0				4	0.3	0.1	0.7	2	1.3	0.3	6.5
Muscles and Skeleton	0				0				1	28.0	0.01	54136.0†
Injury and Poisoning	0				4	0.3	0.1	0.8	2	1.6	0.3	8.1
Back Sprains and Strains	0				0				1	2.2	0.3	16.2
Other Sprains and Strains	0				0				1	24.1	0.02	28861.0†
Open Wounds - Upper Limb	0				4	1.5	0.5	4.7	0			
Bruises	0				0				0			

* Persons with multiple absences during the time period were counted only once.

** RR = Relative Risk. Adjusted for age and gender; compared with all occupational categories.

*** CI = Confidence Limit.

† Because of the small number of occurrences in this disease category, the confidence intervals are very wide and not statistically significant.

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Appendix W. Relative Risk Estimates for Selected Diagnostic Categories Among OSHA Events

Diseases	Tech Support/Subv (NE) 333 Person-Years				Clerical and Support Wage 112 Person-Years				Technical 116 Person-Years			
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***
All Diseases and Injuries	17	1.5	0.9	2.5	1	0.8	0.1	6.2	8	2.2	1.1	4.5
Muscles and Skeleton	3	2.6	0.7	9.5	0				1	2.5	0.4	17.2
Injury and Poisoning	14	1.3	0.7	2.3	0				7	2.1	1.0	4.6
Back Sprains and Strains	4	1.3	0.5	3.6	0				1	0.9	0.1	6.5
Other Sprains and Strains	3	1.4	0.4	5.0	0				0			
Open Wounds - Upper Limb	2	0.8	0.2	3.8	0				2	3.5	0.8	15.6
Bruises	2	1.9	0.5	7.3	0				1	3.8	0.4	34.6

Diseases	Bargaining Units 623 Person-Years				Miscellaneous 140 Person-Years				Total Persons with 1+ Event
	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	Persons with 1+ Event*	RR**	Lower 95% CI***	Upper 95% CI***	
All Diseases and Injuries	67	7.8	5.2	11.7	1	0.4	0.1	2.2	106
Muscles and Skeleton	7	6.8	2.0	23.1	0				12
Injury and Poisoning	62	8.3	5.4	12.6	1	0.4	0.1	2.4	96
Back Sprains and Strains	21	14.1	5.8	33.9	0				28
Other Sprains and Strains	13	12.5	4.2	37.4	1	1.7	0.3	10.4	18
Open Wounds - Upper Limb	11	4.8	2.0	11.4	0				21
Bruises	7	10.6	2.7	42.6	0				10

* Persons with multiple absences during the time period were counted only once.

** RR = Relative Risk. Adjusted for age and gender; compared with all occupational categories.

*** CI = Confidence Limit.

† Because of the small number of occurrences in this disease category, the confidence intervals are very wide and not statistically significant.